

Bibliography of Precambrian Glaciation (1871 to present)

(PProt–Archean; Ediacaran; Cryogenian; **Geophys.**; **Geochem.**; **Geobiol.**; **Geol.**)

(Total 2000–25: **P=241 (16%)**, **C=296 (22%)**, **B=176 (13%)**, **G=648 (48%)**, t=1426)
Cryogenian only: (1900–49) 83, 1.7/yr); (1950–99) 419, 8.4/yr; (2000–25) 1,438, 53.3/yr

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- Adineh S, Závada P, Bruthans J & Zare M (2025) Sedimentary characteristics of Ediacaran–Cambrian drastic global climate changes in the Proto-Tethys/Panthalassic Ocean: insights from the Hormuz Complex, southern Iran. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **660**, 112670, 1–26.
- Afonso JW, Bedoya-Rueda C, Caetanbo-Filho S, Guacaneme C, Raffaelli G, Candido M, Amorim KB, Paula-Santos GM, Babinski M & Trindade RIF (2025) The role of environmental pressures on stromatolite morphology: insights from the Ediacaran Salitre Formation, Irecê Basin, Brazil. *Precam. Res.* **430**, 107924, 1–12.
- Alcott LJ, Bowyer FT & Agic H (2025) Future directions for understanding the coevolution of life and oxygen. *Nat. Commun.* **6**, 725, 1–7.
- Baker A, Stokes D, Srivastava A, Rupert S & Cockell CS (2025) Two worlds on a stone: Arctic desert hypoliths and epiliths show spatial niche differentiation. *Geobiology* **23**, e70025, 1–15.
- Besse J & Gallet J (2025) Subduction-related volcanic activity as a proxy for global subduction flux over the past billion years, and its correlation with geomagnetic superchrons. *Geophys. Res. Lett.* **52**(2), 1e2024GL111360, 1–11.
- Boyce CK & Nelson MP (2025) Terrestrialization: toward a shared framework for ecosystem evolution. *Paleobiology* **51**(1), 174–194.
- Chen XS, Kuang HW, Liu YQ, Le Heron DP, Wang YC, Peng N, Cui MM & Qi KN (2025) Dynamics of Marinoan-age glaciers in NW Tarim, China. *Precam. Res.* **430**, 107933, 1–17.
- Copeland P & Bhattacharya JP (2025) *Earth History: Stories of Our Geological Past*. Cambridge University Press, Cambridge, UK (Chapter 8. A Neoproterozoic frozen planet).
- Coy BP, Kite ES & Graham RJ (2025) The role of tectonic luck in long-term habitability of abiotic Earth-like planets. *Planet. Sci. J.* **6**, 218, 1–29, doi.org/10.3847/psj/adf643
- de Alvarenga CJS, de Carvalho MG & Santos RV (2025) Tracing Ediacaran $\delta^{13}\text{C}$ anomalies across southwestern Gondwana: new stratigraphic insight from the Sete Lagoas Formation, central Brazil. *J. Geol. Soc. Lond.* **183**(1), 10.1144/jgs2024-266
- Dong YP, Santosh M & Somerville ID (2025) Neoproterozoic Earth: tectonics, environment and life evolution. *Earth-Sci. Rev.* **269**, 105195, 1–4.
- dos Santos RF, Sansjofre P, Nogueira ACR, Hohl SV, Bom MHH, Brito AS, Callefo F & Lalonde SV (2025) Post-Marinoan paleoredox and paleoproductivity record in Puga cap carbonate: implications for coastal life colonization at the Amazon Craton marginal sea. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **657**, 112600, 1–18.
- El Kabouri J, Triantafyllou A, Errami E, Belkacim S, Calassou E, Zouicha A & Linnemann U (2025) Revising the lithostratigraphic framework of the Ediacaran succession of the Anti-Atlas belt: correlation across the Cadomian domain of the West African Craton. *J. Afr. Earth Sci.* **229**, 105696, 1–33.
- Fakhraee M, Crockford PW, Bauer KW, Pasquier V, Sugiyama I, Katsev S, Raven MR, Gomes M, Philippot P, Crowe SA, Tarhan LG, Lyons TW & Planavsky N (2025) The history of Earth's sulfur cycle. *Nat. Rev. Earth Env.* **6**, 106–125.
- Fan HF, Chen ZG, Zhang F, Zhu CW, Du SJ, Zhang YX, Wen HJ, Khan D & Algeo TJ (2025) Seawater temperatures during the early to middle Ediacaran: phosphate oxygen isotope records. *Chem. Geol.* **678**, 122642, 1–10.

- Fazio G, Yokoyama E, Franco DR, de Megalhães Rocha R, dos Santos NB, Cândido M, Gonçalves Leandro C (2025) Influence of orbital eccentricity on the depositional dynamics of iron formations: insights from the Neoproterozoic Banda Alta Formation (Urucum District, Brazil). *Palaeogeog. Palaeoclimatol. Palaeoecol.* **661**, 112715, 1–12.
- Fernandes HA, Boggiani PC, Frederiksen JA, Da Roz Campos M, Carduso-Licas V, Freitas BT & Frei R (2025) Rapid bioproductivity recovery following the Marinoan glaciation: evidence from Sr–Cr–Cd isotopes and trace elements in the Morraria do Sul cap dolostone, Brazil. *Chem. Geol.* **673**, 122548, 1–21.
- Fernandez HA, Rimi LT, Teixeira IR, Passarelli CR, Stama L, Lucas VC, Ferreira VP, Sial AN, Cezario WdS, Leme JdM, Karmann I & Boggiani PC (2025) Carbon isotope chemostratigraphy, detrital zircon geochronology, and microfossils from the Rio Pardo Group, NE Brazil: implications for the Cryogenian interglacial dynamics. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **679**, 113305
- Galili N, Bernasconi SM, Nissan A, Alcolombri U, Aquila G, Di Bella M, Blattmann TM, Haghypour N, Italiano F, Jaggi M, Kapolan-Ashiri I, Lee KS, Lechte MA, Magnabosco C, Porter SM, Rudmin M, Spencer RGM, Stocker R, Wang Z, Wohlwend S & Hemingway JD (2025) The geologic history of marine dissolved organic carbon from iron oxides. *Nature* **644**, 945–951.
- Gómez N, Lowe D, Mills A, Kommescher S & Lam R (2025) Unravelling recycling and climate influence on detrital U–Pb geochronology of titanite and apatite: an example from the Gaskiers glaciation, Newfoundland. *Precam. Res.* **427**, 107871, 1–23.
- Gong Z, Evans DAD, Fu RR & Xu S (2025) Reassessing the geocentric-axial-dipole (GAD) model for Proterozoic time with paleomagnetic directions from dike swarms. *Earth Planet. Sci. Lett.* **667**, 119508, 1–13.
- Goodis Gordon KE, Karalidi T, Bott KM, Vancil CJ, Millar-Blanchaer MA, Wogan NF & Wolf ET (submitted) Polarized signatures of variable worlds: modeling heterogeneous habitable nearth- and early Mars-like (exo)planets. *Astrophys. J.* **993**(1), 36, 1–16.
- Goto KT, Sekine Y, Nakamura U, Suzuki K, Senda R, Yamada N, Ueno Y, Tachibana S, Yoshida N, Harada M, Tada R, Goto K, Yamamoto S, Maruoka T, Ogawa NO, Ohkouchi N, Harigani Y, Kon Y, Shimoda G, Poulton SW & Tajika E. (2025) Incomplete oxidative sulfide weathering and low atmospheric oxygen levels during the Great Oxidation Event. *Nat. Commun Earth Env.* **6**, 906, 1–12.
- Grau D, Hussain A & Robel AA (2025) Predicting mean depth and area fraction of Antarctic supraglacial melt lakes with physics-based parameterizations. *Nat. Commun* **16**, 6518, 1–13.
- Harada M, Miura Y, Watanabe Y & Ozaki K (2025) Redox dynamics of the atmosphere and oceans induced by the Paleoproterozoic Snowball Earth events. *Geobiology* **23**(6), e70040, 1–14.
- He HX, Xiao JF, Yang HY, Yao LB & Yang C (2025) Redox conditions of Datangpo-type manganese ores constrained by statistical analysis of pyrite framboids and iron isotopes. *Sed. Geol.* **463**, 106606, 1–00.
- He WH, Weldon EA, Zhang KX, Bu JJ, Zhao TY, Xu YD, Wu C, Huang YF & Pan GT (2025) Huanan Ocean remained active from Neoproterozoic to Cambrian: evidence from stratigraphic sequences and paleocean related remnants in South China. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **664**, 112806, 1–12.
- Hoffman PF (2025) Ecosystem relocation on Snowball Earth: polar–alpine ancestry of the extant surface biosphere? *Proc. Natl Acad. Sci. USA* **122**(20), e2414059122, 1–9.
- Hörner J & Voigt A (2025) Making sense of bifurcation diagrams: a new framework to understand the roles of clouds and bare sea ice for waterbelt states. *J. Geophys. Res. Atm.* **130**, e2025JD043568, 1–20.
- Hu HY, Liu Q, Zhao GC, Lu LH, Han YG, Shao D, Cao XY, Yao JL, Zhang DH, Jing JH & Liu JY (2025) Glacial events and continental weathering evolution of syn-, inter-, and post-glaciation during

- the middle-late Neoproterozoic period in the southwestern Tarim Craton, China. *Geol. Soc. Am. Bull.* **137**(7/8), 2823–2845.
- Hu LS, Yang J, Du YS, Han ZZ, Han C, Jin W & Wan L (2025) Provenance of the Nantuo Formation in the Shennongjia region: implications for the paleogeographic position of South China in Rodinia. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **663**, 112793, 1–14.
- Hulse D & Ridgwell A (2025) Instability in the geological regulation of Earth's climate. *Science* **389**(6767), doi.org/10.1126/science.adh7730, 1–7.
- Husain F, Millar JL, Jungblut AD, Hawes I, Evans TW & Summons RE (2025) Biosignatures of diverse eukaryotic life from a Snowball Earth analogue environment in Antarctica. *Nat. Commun* **16**, 5315, 1–16.
- Jakoski BM & Byrne PK (2025) Using Venus, Earth, and Mars to understand exoplanet volatile and climate evolution. *J. Geophys. Res. Planets* **130**(10), e2024JE008882.
- Jing XQ, Yang ZY, Gong Z, TongYB, Hu LM & Yang S (2025) Tonian true polar wander events recorded by paleolatitudinal variations of South China and its Southern Hemispheric position in Rodinia. *Geology* **53**(12), 1017–1022.
- Kasting JF & Ji AS (2025) Atmospheric oxygen and methane on the early Earth. *Phil. Trans. R. Soc. Lond. B Biol. Sci.* **380**(1931), 20240093, 1–12.
- Kendall B, Creaser RA, Hannah JL, Goswami V & Tripathy G (2015) Reel-to-reel Re–Os records: Earth system transactions preserved in sediments. *Elements* **21**, 264–270.
- Kennedy K & Eyles N (2025) The Paleoproterozoic (c 2.3 Ga) Gowganda Formation: deep water, glacially-influenced debrites and related mass flow along a passive margin. *Earth-Sci. Rev.* **261**, 105033, 1–23.
- Kirkland CL, Strachan RA, Archibald DB & Murphy JB (2025) The Neoproterozoic glacial broom. *Geology* **53**(5), 435–440.
- Leloup G, Quiquet A, Roche DM, Dumas C & Paillard D (2025) Hysteresis of the Antarctic Ice Sheet with a coupled climate–ice-sheet model. *Geophys. Res. Lett.* **52**, e2024GL111492, 1–11.
- Li R., Zhou XQ, Guo C, Huang TY, Wang ZF, Huang KJ, Peng P, Wang XG, Du TX, Xue DS & Liu YH (2025) Reexamination and reidentification ocean oxygenation event in the wake of the Marinoan glaciation. *Earth Planet. Sci. Lett.* **658**, 119312, 1–12.
- Liu LP, Li XH, Liu J, Chu HX, Wang HS & Chu FY (2025) Marine-sedimentary manganese metallogenesis through geologic time and its coupling with major geoenvironmental events. *Earth-Sci. Rev.* **269**, 105205, 1–18.
- Liu P, Liu YG, Wang RM, Li SZ, Sun YD, Wen B & Shen B (2025) Maintenance of the great late Ediacaran ice age. *Nat. Commun* **16**, 3602, 1–9.
- Liu YS, Lee DC, Liang MC, Iizuka Y, Thiemens MH, Shen YN & Shang H (2025) Characterizing deposition and diagenesis history of post-Marinoan Snowball Earth carbonates from sedimentary pyrites. *Chem. Geol.* **684**, 122764, 1–12.
- Liu ZH, Algeo TJ, Brocks JJ, van Maldegem LM, Gilleaudeau GJ, Kah LC, Cheng M & Yu WC (2025) Salinity reconstruction in Proterozoic depositional systems. *Geol. Soc. Am. Bull.* **137**(1/2), 447–464.
- Lu K, Mitchell RN, Yang C, Zhou JL, Wu LG, Wang XC & Li XH (2025) Widespread magmatic provinces at the onset of the Sturtian snowball Earth. *Earth Planet. Sci. Lett.* **594**, 117736, 1–9.
- Ma ZX, Ling Y, Qin YJ, Liu Y, Yao XC, Wang P & Liu XT (2025) Paleo-ocean chemistry characteristics of the Cryogenian Datangpo Formation in South China and implications for manganese metallogenesis. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **677**, 113212, 1–14.
- Macdonald FA, Renger E, Tasistro-Hart AR, Byerly BL, Jackson MG, Bergmann KD, Horner TJ & Crockford PW (2025) Mantle-like Sr isotopes in a Sturtian cap carbonate in Oman. *Geology* **53**(9), 753–756.
- Millikin AEG, Gibson TM, Strauss JV, Bergmann KD, Tosca NJ, Anderson RP, Halverson GP, Zhang TR & Rooney AD (2025) Geochemistry and mineralogy of Neoproterozoic strata in northeastern

- Svalbard: reevaluating the prevalence of basalt weathering during the early Neoproterozoic. *Geol. Soc. Am. Bull.* **137**(11/12), 4875–4898.
- Millikin AEG, Stewart EM, Isson TT, Pescarini T, Hoffmann KH & Evans DAD (2025) Palaeomagnetic overprint records in the Neoproterozoic Damara Supergroup of northwestern Namibia. *S. Afr. J. Geol.* **128**(2), 193–226.
- Mills BJW, le Hir G, Merdith A, Gurung K, Bowyer FT, Krause AJ, Sánchez-Baracaldo P, Hungler SJ & Zhang YG (2025) Exploring Neoproterozoic climate and biogeochemical evolution in the SCION model. *Glob. Planet. Change* **249**, 104791, 1–11.
- Minsky C, Wordsworth R, Macdonald FA & Knoll AH (2025) Neoproterozoic Snowball Earth initiation from silicate weathering of a large igneous province. *J. Geophys. Res. Planets* **130**, e2024JE008701, 1–15.
- Moore KR, Dawson J, Nelson LL, Smith EF & Pruss SB (2025) Tubular microfossils from Neoproterozoic cap limestone of the Dzetyim Group, Kyrgyzstan. *Precam. Res.* **427**, 107873, 1–17.
- Morris FK, Pico T, Creveling JR & Grotzinger JC (2025) Melting the Marinoan Snowball Earth: the impact of deglaciation duration on the sea level history of continental margins. *Earth Planet. Sci. Lett.* **650**(2), 119132, 1–13.
- Nédélec A (2025) *Earth and Life: A History of Four Billion Years*. Oxford University Press, Oxford, UK,
- Nordsvan AR, Bauer KW, Colleps CL, Mitchell RN & McKenzie NR (2025) Modeling the stratigraphic record of glacioeustatic sea-level rise and sediment starvation following Snowball Earth. *Earth Planet. Sci. Lett.* **659**, 119332, 1–12.
- Obase T, Kodama T, Kawasaki T, Sherriff-Tadano S, Takasuka D, Abe-Ouchi A & Fijii M (2025) Climate and ocean circulation changes toward a modern snowball Earth. *EGU Sphere*, 1–24, <http://doi.org/10.5194/egusphere-2025-1484>
- Ouyang Q, Zhou CM, Lang XG, Qu YG, Shi HY, Sun YP & Chen Z (2025) A flourishing planktonic microbial community in an interglacial offshore environment: silicified microfossils from the Cryogenian Datangpo Formation, South China. *Geobiology* **23**, e70034, 1–25.
- Peng MH, Li J, Tian X, Luo J, Li Pj, Wang HJ, Xie TH, Deng YJ, Jize DD & Li H (2025) Neoproterozoic rifting along the margin of the Rodinia supercontinent: sedimentary evidence from the northwestern Tarim Block, Northwest China. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **660**, 112662, 1–29.
- Pierce JS, Evans DAD, Polomski DE, Youbi N, Mediany MA, Ounar J, Oukhro R, Boumehdi MA, Strauss JV, Keller CB, Gärtner A, Ovtcharova M, Wotzlaw J-F & Linnemann U (2025) Magnetostratigraphic constraints on the late Ediacaran paleomagnetic enigma. *Sci. Adv.* **11**, eady3258, 1–8.
- Plummer PS (2025) The early Ediacaran lower Wilpena Group of the Adelaide Superbasin, South Australia: a review of its stratigraphy and bounding 'disconformity sequences.' *Austral. J. Earth Sci.* **72**(1), 1–15.
- Sawaki Y, Namba K, Aikawa T, Tahata M, Ohno T, Komiya T & Han J (2025) Intense continental weathering during the early Ediacaran: in the aftermath of the Marinoan snowball Earth. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **679**, 113270, 1–15.
- Schmid S, Krapf CBE, Loehr S, Crombez V, Fabris AJ, Bockmann MJ & Spampinato G (2025) Carbon isotope chemostratigraphy and long-term sedimentary cyclicity of the mid-Cryogenian non-glacial interlude, Stuart Shelf, South Australia. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **676**, 113178, 1–14.
- Sebaaly AP, van Rijn F, Hanna K & Boily J-F (2025) Ice as a kinetic and mechanistic driver of oxalate-promoted iron oxyhydroxide dissolution. *Proc. Natl Acad. Sci. USA* **122**(35), e2507588122, 1–6.

- Shao D, Han YG, Lu LH, Li M, Cao XY, Ju PC, Hu HY, He JJ, Liu JY & Zhao GC (2025) Ediacaran glacial records identified from the southern Alxa Block in NW China: evidence from stratigraphy and C–O isotopes. *Precam. Res.* **418**, 107697, 1–16.
- Shao D, Han YG, Li M, Lu LH, Ju PC, Cao XY, Hu HY, He JJ & Zhao GC (2025) Newly discovered diamictite and cap carbonate couplet in the southern Alxa Block, northwestern China: implications for stratigraphic correlation and Marinoan glaciation. *Geol. Soc. Am. Bull.* **137**(1/2), 725–739.
- Shawar L, Love GD, Uveges BT, Zumberge JA, Cárdenas P, Giner J-L & Summons RE (2025) Chemical characterization of C₃₁ sterols from sponges and Neoproterozoic fossil sterane counterparts. *Proc. Natl Acad. Sci. USA* **122**(41), e2503009122, 1–11.
- Shen B, Lang XG, Wang RM, Liu YG, Zhang SH, Huang TZ, Chu XL, Cui YX, Ding WM, Du YS, He R, Huang KJ, Hu YY, Hu J, Gu SY, Kuang HW, Lan ZW, Li C, Li FB, Liu YQ, Luo GM, Ma HR, Ning M, Qu YG, Peng Y, Peng YB, Wang J, Wang JS, Xing CC, Xu B, Yang J, Ye Q, Yin ZJ, Yu WC, Yuan XL, Zhou CM, Zhu SX & Zhu XK (2025) Resolving the Snowball Earth conundrum: the role of marine dissolved organic pool. *Sci. Bull.* **70**, 2173–2189.
- Smelror M (2025) Were there any snow algae on the Cryogenian ‘Snowball Earth’? *Precam. Res.* **430**, 107935, 1–9.
- Swanson-Hysell NL, Zhang YM, Macdonald FA, Koran I, Tasistro-Hart AR & Jay AF (2025) Oman was on the northern margin of a wide Tonian Mozambique Ocean. *Geology* **53**(11), 909–913.
- Szánthó LL, Merényi Z, Donoghue P, Gabaldón T, Nagy LG, Szöllösi GJ & Ocaña-Pallarès (2025) A timeline of Fungi dated with fossils and horizontal gene transfers. *Nat. Ecol. Evol.* **9**, 1989–2001.
- Tasistro-Hart AR, Macdonald FA, Crowley JL & Schmitz MD (2025) Four-million-year Marinoan snowball shows multiple routes to deglaciation. *Proc. Natl Acad. Sci. USA* **122**(18), e2418281122, 1–8.
- Trower EJ, Ingalls M, Gutowski JR & Wala VT (2025) New constraints on phosphate concentration and temperature in shallow late Tonian seawater. *Geology* **53**(11), 940–944.
- Wang CY, Wu HX, Dilek Y, Zhang FQ, Chen HL, Li F, Qiu DW, Shi XH, Lin XB & Cheng XG (2025) Multiple episodes of late Neoproterozoic rifting in the Tarim Craton during its separation from supercontinent Rodinia. *J. Geol. Soc. Lond.* **182**(2), jgs2024-076, 1–15.
- Wang G, Zhao K, Zhang JX, Zhu SX, Xing CC & Lang XG (2025) Glacial fluctuations in the Cryogenian Marinoan Snowball Earth. *Gondwana Res.* **139**, 1–15.
- Wang HY, Li C, Peng YB, Zhang JP, Cheng M, Cao XB, Qie WK, Zhang ZH, Dodd MS, Hou MC, Wallace M, Hood AvS, Lyons TW & Bao HM (2025) Two-billion-year transitional oxygenation of Earth’s surface. *Nature* **645**, 665–671.
- Wang JJ, Wang RM, Qi Z, Fu SH, Wang G & Shen B (2025) Mid-latitude climatic oscillation during the late Ediacaran ice age. *Glob. Planet. Change* **251**, 104823, 1–16.
- Wang LL, Cao MC, Lin YB, Wu F, Tang Q & Zhang FF (2025) Reconstruction of marine redox landscape during the Cryogenian interglacial oceans using thallium isotopes. *Earth Planet. Sci. Lett.* **662**, 119419, 1–11.
- Wang XF, Ye H, Brozowski MJ, Li X, Lei RX & Wu CZ (2025) Depositional age and environment of the Xinyu iron deposit in the Nanhua Basin, South China. *Precam. Res.* **417**, 107671, 1–13.
- Yan MY, Yang J, Li DW, Ji WW & Yuan SA (2025a) Simulating continental dust on a hard Snowball Earth: 1. Limited dust emission. *J. Geophys. Res.* **130**(15), e2024JD042495, 1–18.
- Yan MY, Yang J & Li DW (2025b) Simulating continental dust on a hard Snowball Earth: 2. Climatic effect of dust. *J. Geophys. Res.* **130**(15), e2025JD043536, 1–17.
- Zhang K, Little SH, Dickson AJ & Shields GA (2025) Ocean deoxygenation after the Sturtian Snowball. *Nat. Commun.* **16**, 5618, 1–10.
- Zhang T, Ma C, Li YF, Li C, Da Silva AC, Fan TL, Gao Q, Kuang MZ, Liu WW, Li MS & Hou MC (2025) Astronomically calibrating early Ediacaran evolution. *Nat. Commun.* **16**, 3049, 1–14.

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- Al Bahri J, Bankole O, Muir D, El Albani A, Oldroyd A, Contreras D, Andersen M & Fru EDC (2024) Clay mineral geochemistry and paleoenvironmental reconstruction across the Cryogenian Sturtian Snowball glaciation. *Precam. Res.* **410**, 107498,
- Bao HM, Peng YB & Cao XB (2024) Origin of sulfate in post-snowball-Earth oceans: river inputs vs. shelf-derived H₂S. *Natl Sci. Rev.* **11**, nwae380, 1–2.
- Beukes NJ & Schröder S (2024) Sedimentary and stratigraphic architecture of the Duitschland and Rooihoogte formations (Palaeoproterozoic, South Africa): implications for tempo of the Great Oxidation Event. *S. Afr. J. Geol.* **127**(2), 433–454.
- Bhattacharya HN (2024) Marinoan glaciation in the Indian subcontinent – anatomy and global implications. *J. Palaeogeog.* **13**(2), 293–308.
- Bian CS, Sun Z, Chen X, Li CX, Chai SQ, Deng YH & Gao T (2024) Sedimentary sequence and evolutionary characteristics of the rift system of Neoproterozoic Nanhua Sysem and Doushantuo Formation: a case study from the northeastern margin of Sichuan Basin. *Geol. J.* **59**, 854–871.
- Bowles AMC (2024) A year at the forefront of Streptophyte algal evolution. *Biol. Open* **13**(9), bio061673, 1–5.
- Bowles AMC, Williams TA, Donoghue PCJ, Campbell DA & Williamson CJ (2024) Metagenome-assembled genome of the glacier alga *Ancylonema* yields insights into the evolution of streptophyte life on ice and land. *New Phytologist* **244**(4), 1629–1643.
- Bowles AMC, Williamson CJ, Williams TA & Donoghue PCJ (2024) Cryogenian origins of multicellularity in Archaeplastida. *Genome Biol. Evol.* **16**(2), 1–14.
- Cao GY, Zhang GL, Zhao YY, Wang TS, Liu Y, Li QF, Guo XQ, Zhang ZS, Yang L, Liu S & Wei HT (2024) Climatic–hydrologic influence on redox condition in the Cryogenian interglacial Nanhua Basin: insights from the Datangpo Formation in the northwestern Yangtze Block, South China. *Precam. Res.* **412**, 107557, 1–15.
- Cao KN, She ZB, Chen Q, Jiao LX, Xiao Q, Cheng M, Zhang ZH, Luo GM & Papineau D (2024) Dolostone-barite-phosphorite sequence in the basal Doushantuo Formation: origin and implications for post-Marinoan ocean chemistry. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **651**, 112400, 1–15.
- Chaverot G, Zorzi A, Ding XS, Itcovitz J, Fan B, Bhatnagar S, Ji AS, Graham RJ & Mittal T (2024) Resilience of Snowball Earth to stochastic events. *Geophys. Res. Lett.* **51**, e2024GL109512, 1–11.
- Chen H, Fan HF, Khan D, Jiang X, Feng LJ, Wen HJ, Tian HH & Zhu XK (2024) Precipitation mechanism of Mn ore deposits in the Datangpo Formation, Nanhua Basin, South China. *Glob. Planet. Change* **239**, 104499, 1–15.
- Courtney-Davies L, Flowers RM, Siddoway CS, Tasistro-Hart A & Macdonald FA (2024) Hematite U–Pb dating of Snowball Earth meltwater events. *Proc. Natl Acad. Sci. USA* **121**(47), e2410759121, 1–11.
- Crockett WW, Shaw JO, Simpson C & Kempes CP (2024) Physical constraints during Snowball Earth drive the evolution of multicellularity. *Proc. R. Soc. Lond. B* **291**, 20232767, 1–12.
- Cui H, Kitajima K, Orland IJ, Baele J-M, Denny A, Spicuzza MJ, Fournelle JH, Goderis S, de Winter NJ & Valley JW (2024) Questioning the role of methane in the wake of a Snowball Earth: insights from isotopically anomalous cap carbonate cements with a complex diagenetic history. *Geochim. Cosmochim. Acta* **364**, 195–210.
- Dong YP, Hui B, Sun SS, Sun JP, Zang RT, Zhang B, Luo QX, Chong FB, Yu KC, Fan MP, Li YX, Zhu X, Dai QW & Zuo ZS (2024) The links between Neoproterozoic tectonics, paleoenvironment and Cambrian explosion in the Yangtze Block, China. *Earth-Sci. Rev.* **248**, 104638, 1–42.
- dos Santos RF, Sansjofre P, Nogueira ACR, Crockford PW, Uhlein GJ, Fogret L, Pereira FS, Romero GR & Lalonde SV (2024) Rare earth elements as indicators of post-Marinoan (~635 Ma) paleoceanographic changes from the Amazon craton. *Precam. Res.* **413**, 107575, 1–22.

- Dutkiewicz A, Merdith AS, Collins AS, Mather B, Llano L, Zahirovic S & Müller RD (2024) Duration of Sturtian “Snowball Earth” glaciation linked to exceptionally low mid-ocean ridge outgassing. *Geology* **52**, 292–296.
- Dutkiewicz A & Müller RD (2024) Submarine volcanism along shallow ridges did not drive Cryogenian cap carbonate formation. *Geology* **52**(5), 321–325.
- Dutkiewicz A & Müller RD (2024) Forum Reply: Submarine volcanism along shallow ridges did not drive Cryogenian cap carbonate formation. *Geology* **52**, e579, doi.org/10.1130/G52425Y.1
- Eisenman I & Armour KC (2024) The radiative feedback continuum from Snowball Earth to an ice-free hothouse. *Nat. Commun* **15**, 6582, 1–11.
- Fitzgerald DM, Narbonne GM, Pufahl PK & Dalrymple RW (2024) The Mall Bay Formation (Ediacaran) and the protracted onset of the Gaskiers glaciation in Newfoundland, Canada. *Precam. Res.* **405**, 107369, 1–26.
- Frei R, Gaucher C, Boggiani PC, Frederiksen JA, Walker SR, Fernandes HA & Caxito F (2024) Surface water oxidation and low bioproductivity during deposition of iron formation of the Jacadigo Group (Brazil): insights from combined cadmium – chromium isotopes. *Chem. Geol.* **657**, 122101, 1–19.
- Fu MM, Abbot DS, Koeberl C & Fedorov A (2024) Impact-induced initiation of Snowball Earth: a model study. *Sci. Adv.* **10**, eadk5489, 1–8.
- Gan T, Tian M, Wang XK, Wang SJ, Liu XM, Jiang GQ, Gill BC, Nolan M, Kaufman AJ, Luo TY & Xiao SH (2024) Lithium isotope evidence for a plumeworld in the aftermath of the Marinoan snowball Earth. *Proc. Natl Acad. Sci. USA* **121**(46), e2407419121, 1–11.
- Gernon TM, Hincks TK, Tyrrell T, Rohling EJ & Palmer MR (2024) Comment: Submarine volcanism along shallow ridges did not drive Cryogenian cap carbonate formation. *Geology* **52**(8), e578.
- Gianchandani K, Halevy I, Gildor H, Askenazy Y & Tziperman E (2024) Production of Neoproterozoic banded iron formations in a partially ice-covered ocean. *Nat. Geosci.* **17**(4), 298–301.
- Gómez-Pérez I, Bergmann K & Al Rawahi H (2024) An integrated correlation from platform to basin: implications for understanding the Ediacaran succession of Oman. *AAPG Bull.* **108**(9), 1727–1766.
- Graham RJ & Pierrehumbert RT (2024) Carbon cycle instability for high-CO₂ exoplanets: implications for habitability. *Astrophys. J.* **970**, 32, 1–18.
- Hadlari T, Rayner NM, Poulton TP & Arnott RWC (2024) Syn-rift volcanism (ca. 670 Ma) in the lower Windermere Supergroup, southern Canadian Cordillera: new constraints on the syn- to post-rift transition for northwestern Laurentia. *Precam. Res.* **414**, 107604, 1–6.
- Hagen CJ (2024) Quantitative and nuanced approaches elucidate carbon isotope records. *Geochem. Geophys. Geosyst.* **25**, e2024GC001718, 1–6.
- Han SJ, Löhr SC, Abbott AN, Baldermann A, Shields GA, Cui H, Kaufman AJ, Chen B & Yu BS (2024) Authigenic clay mineral constraints on spatiotemporal evolution of restricted, evaporitic conditions during deposition of the Ediacaran Doushantuo Formation. *Earth Planet. Sci. Lett.* **626**, 118524, 1–14.
- Hoffman PF & Tasistro-Hart A (2024) A giant glacial erratic of Cryogenian (end-Sturtian) age. *Commun Geol. Surv. Namibia* **27**, 40–46.
- Honarmand M, Nabatian G, Wagner C, Monsef I, Delpech G, Bayon G, Boudouma O & Orberger B (2024) Late Ediacaran iron formations in NW Iran: origin, depositional age, tectonic and climatic significance. *Precam. Res.* **406**, 107382, 1–26.
- Horne JE & Goldblatt C (2024) EONS: a new biogeochemical model of Earth’s oxygen, carbon, phosphorus, and nitrogen systems from the Archean to the present. *Geochem. Geophys. Geosyst.* **25**, e2023GC011252, 1–80.
- Hörner J & Voigt A (2024) Sea-ice thermodynamics can determine waterbelt scenarios for Snowball Earth. *Earth System Dynamics* **15**(2), 215–223.

- Hou SQ, Li D, He DF, Shi KB, Li YF, Fan D & Chen JJ (2024) Neoproterozoic basin evolution of the northern Tarim craton from back-arc rift to passive continental margin: implications for the opening of the South Tianshan Ocean. *Precam. Res.* **415**, 107618, 1–16.
- Isson T & Rauzi S (2024) Oxygen isotope ensemble reveals Earth's seawater, temperature, and carbon cycle history. *Science* **383**, 666–670.
- Jiao NZ, Du JL, Xiao XL & Tian J (2024) Addressing the “Negative $\delta^{13}\text{C}$ arms” puzzle pre- and post-Neoproterozoic glaciations. *Innov. Geosci.* **2**(3), 1000081, 1–2.
- Kaiho K, Shizuya A, Kikuchi M, Komiya T, Chen ZQ, Tong JN, Tian L, Gorjan P, Takahashi S, Baud A, Grasby SE, Saito R & Saltzman MR (2024) Oxygen increase and the pacing of early animal evolution. *Glob. Planet. Change* **233**, 104364, 1–19.
- Lamothe KG, Wallace MW, Hood AVS & Rose CV (2024) An earliest Ediacaran oxygenation episode in the Wilpena Group, Adelaide Superbasin, South Australia. *Precam. Res.* **409**, 107433, 1–16.
- Lan ZW, Huyskens MH, Ren R & Yin QZ (2024) A potential new early Ediacaran glaciation. *J. Earth Sci.* **35**(6), 1810–1819.
- Lan ZW, Larson K, Cao R, Ye Q, Hu J, Tang GQ, Li J & Tong JN (2024) Black shale LA-ICP-MS Re-Sr and monazite SIMS U–Pb geochronology from the Cryogenian successions in the northern Yangtze Block. *Precam. Res.* **401**, 107277, 1–14.
- Liu J, Xu YJ, Cawood PA, Liu Y, Xiao HW, Liu GQ & Zhang JH (2024) Evidence for, and significance of, the Neoproterozoic Xuefeng Orogeny, South China. *Precam. Res.* **411**, 107532, 1–18.
- Liu JC, Yang J, Ding F, Chen G & Hu YY (2024) Hydrologic cycle weakening in hothouse climates. *Sci. Adv.* **10**, eado2515, 1–10.
- Lu LH, Han YG, Zhao GC, Huang TJ, Ju PC, Wang ZF, Guo Y, Shao D, Hu HY & Cao XY (2024) Depositional processes of Marinoan-age diamictites and cap carbonates in northwestern Tarim, China: implications for chemical weathering following the Marinoan deglaciation. *Geol. Soc. Am. Bull.* **136**(5/6) 2443–2459.
- Lu YW, Wang ZF, Meng ZK, Zhou XG, Chang C, Zhang KL & Huang KJ (2024) Marine nitrogen cycling in the aftermath of the Marinoan Snowball Earth. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **639**, 112065, 1–11.
- Magnabosco C, Husain F, Paoletti MM, Parsons C, Payette JG, Schwartz SL, Tamre E & Fournier GP (2024) Toward a natural history of microbial life. *Annu. Rev. Earth Planet. Sci.* **52**, 85–108.
- Meng ZK, Wang ZF, Ju PC, Zhou XQ, Li C, Zhang ZH, Zhang XL & Huang KJ (2024) Marine redox fluctuations during Marinoan glaciation. *Glob. Planet. Change* **235**, 104396, 1–14.
- Millikin AEG, Uveges BT, Izon G, Bauer AM, Summons RE, Evans DAD & Rooney AD (2024) A new Re–Os age constraint informs the dynamics of the Great Oxidation Event. *Geology* **52**(11), 857–862.
- Mu, XD, Wang XD, Lan ZW, Zhao H & Chen ZQ (2024) Involvement of Hg-bearing methane seeps in forming Ediacaran cap carbonate in South China. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **651**, 112389, 1–9.
- Müller RD, Dutkiewicz A, Zahirovic S, Merdith AS, Scotese CR, Mills BJW, Ilano L & Mather B (2024) Solid Earth carbon degassing and sequestration since 1 billion years ago. *Geochem. Geophys. Geosys.* **25**, e2024GC011713, 1–46.
- Nieminski NM, McHague TR, Gooley JT, Fildani A & Lowe DR (2024) Spatial distribution and variability of lobe facies in a large sand-rich submarine fan system: Neoproterozoic Zerrissene Group, Namibia. *Sedimentology* **71**, 81–115.
- Niu YZ, Shi GR, Zhang Q, Jones BG, Wang X & Zhao GC (2024) Ediacaran Cordilleran-type mountain ice sheets and their erosion effects. *Earth-Sci. Rev.* **249**, 104671, 1–22.
- Pescarini T, Trindade RIF, Hoffman PF & Gomes Sant'Anna L (2024) Paleomagnetic investigation of the basal Maieberg Formation (Namibia) cap carbonate sequence: implications for Snowball Earth postglacial dynamics. *Geol. Soc. Am. Bull.* **136**(11/12), 4775–4797.

- Porfirio-Sousa AL, Tice AK, Morais L & Lahr DJG (2024) Amoebozoan testate amoebae illuminate the diversity of heterotrophs and the complexity of ecosystems throughout geological time. *Proc. Natl Acad. Sci. USA* **121**(30), e2319628121, 1–11.
- Ramme L, Ilyina T & Marotzke J (2024) Moderate greenhouse climate and rapid carbonate formation after Marinoan snowball Earth. *Nat. Commun* **15**, 3571, 1–11.
- Rasmussen B, Zi JW & Bekker A (2024) New U–Pb tuff ages and revised stratigraphic correlations in the Superior craton during the Great Oxidation Episode. *Earth Planet. Sci. Lett.* **643**, 118779, 1–12.
- Rice AHN, Viehmann S, Peng YB & Bao HM (2024) Sedimentary environment of basal Ediacaran barite growth on Baltica in E. Finnmark, N. Norway, and subsequent dissolution/precipitation. *Precam. Res.* **406**, 107384, 1–21.
- Rugen EJ, Pastore G, Vermeesch P, Spencer AM, Webster D, Smith AGG, Carter A & Shields GA (2024) Glacially influenced provenance and Sturtian affinity revealed by detrital zircon U–Pb ages from sandstones in the Port Askaig Formation, Dalradian Supergroup. *J. Geol. Soc. Lond.* **181**, jgs2024-029, 1–10.
- Ruiz DG, Goldblatt C & Ahm S-S (2024) Climate variability leads to multiple oxygenation episodes across the Great Oxidation Event. *Geophys. Res. Lett.* **51**, e2023GL106694, 1–10.
- Schmid S, Krapf CBE, Crombez V, Spampinato G, Fabris AJ, King A & Bockmann MJ (2024) Stratigraphy and sequence stratigraphy of the Neoproterozoic (Cryogenian–Ediacaran) Stuart Shelf, South Australia. *Austral. J. Earth Sci.* **71**, 615–638.
- Shum EM, Laguë MM, Swann ALS, Bitz CM, Waddington ED & Warren SG (2024) Ocean bays surrounded by desert land could support photosynthetic life on Snowball Earth. *Authorea*. March 27, 2024. doi:10.22541/au.17115655.1.19606238/v1.
- Song F, He YY, Niu ZJ, Menzies J, Yang WQ, An ZH & Wang ZH (2024) Ediacaran diamictite deposition in South China: detrital zircon U–Pb age evidence and macro sedimentary texture of the Aiqiling formation in southeastern Hunan Province. *Precam. Res.* **413**, 107580, 1–16.
- Souza NMC, Lafon JM, Milhomem Neto JM & Soares JL (2024) Continental contribution to the Marinoan cap carbonate of Tangará de Serra – MT, Brazil: further evidence from Sr–Nd–Pb isotope geochemistry. *Brazilian J. Geol.* **54**(1), e20230015, 1–17.
- Stewart EM & Penman DE (2024) Enhanced metamorphic CO₂ release on the Proterozoic Earth. *Proc. Natl Acad. Sci. USA* **121**(40), e2401961121.
- Sun L, Khan MMSS, Yang C, Sun ZX, Pan B, Ahmed S, Miao LY, Sun WC, Hu CL, Sun XJ, Luo C, Chen B, Yin ZJ, Zhao FC, Li GX & Zhu MY (2024) Cryogenian and Ediacaran integrative stratigraphy, biotas, and paleogeographical evolution of the Qinghai–Tibetan Plateau and its surrounding areas. *Sci. China Earth Sci.* **67**(2), 919–949.
- Sundell KE, Macdonald FA & Puetz SJ (2024) Does zircon geochemistry record global sediment subduction? *Geology* **52**(4), 282–286.
- Swain A, Kaufman AJ, Kalinowski A, Yarwood SA & Fagan WF (2024) Paleoproterozoic glaciations driven by the rise of oxygen in surface environments? *Earth Planet. Sci. Lett.* **643**, 118900, 1–12.
- Thomas TB & Catling DC (2024) Three-stage formation of cap carbonates after Marinoan Snowball glaciation consistent with depositional timescales and geochemistry. *Nat. Commun* **15**, 7055, 1–15.
- Tang Q, Zheng WT, Zhang SH, Fan JX, Riedman LA, Hou XD, Muscente AD, Bykova N, Sadler PM, Wang XD, Zhang FF, Yuan XL, Zhou CM, Wan B, Pang K, Ouyang Q, McKenzie NR, Zhao GC, Shen SZ & Xiao SH (2024) Quantifying the global biodiversity of Proterozoic eukaryotes. *Science* **386**, eadm9137, 1–11.
- Thurston OG, Guenther WR, Karlstrom KE, Heizler MT, Ricketts JW & McDannell KT (2024) Deep-time thermal history of the Great Unconformity in the Grand Canyon, USA: combined zircon (U–Th)/He and K-feldspar ⁴⁰Ar/³⁹Ar thermochronometers. *Geol. Soc. Am. Bull.* **136**(11/12), 4815–4835, 10.1130/B37358.1

- Tu CY, Diamond CW, Stüeken EA, Cao MC, Pan W & Lyons TW (2024) Dynamic evolution of marine productivity, redox, and biogeochemical cycling tracks Cryogenian sea-level change. *Geochim. Cosmochim. Acta* **365**, 114–135.
- Usma CD, Sial AN, Ferreira VP, Gaucher C & Frei R (2024) Chemostratigraphy of early Ediacaran carbonate rocks of the Cachoeirinha Group (Northeastern Brazil): implications for paleoenvironmental conditions and atmospheric oxygenation. *J. S. Am. Earth Sci.* **134**, 104744.
- Vorster C, Ngobeli R & Beukes N (2024) Detrital zircon ages and proposed provenance of the Koegas Subgroup of the Ghaap Group, and overlying Makganyene Formation, of the Postmasburg Group, Transvaal Supergroup. *S. Afr. J. Geol.* **127**(2), 391–420.
- Wang XB, Dong L, Ma HR, Lang XG & Wang RM (2024) Primary productivity recovery and shallow-water oxygenation during the Sturtian deglaciation in South China. *Glob. Planet. Change* **241**, 104546, 1–24.
- Wei W, Yu WC, Du YS, Algeo TJ, Li ZQ, Cheng M, Wang P, Zhang JY, Robbins LJ & Konhauser K (2024) A new salinity-based model for Cryogenian Mn-carbonate deposits. *Precam. Res.* **403**, 107309, 1–17.
- Wen B, Lin YT, Shen FY, Zhou JY (2024) Viewpoint: decoding the puzzle of Late Ediacaran glaciation(s). *J. Earth Sci.* **35**(3), 1049–1052.
- Wilner JA, Nordin BJ, Getraer A, Gregoire RM, Kirshna M, Li JW, Pickell DJ, Rogers ER, McDannell KT, Palucis MC & Keller CB (2024) Limits to timescale dependence in erosion rates: quantifying glacial and fluvial erosion across timescales. *Sci. Adv.* **10**, eadr2009, 1–10.
- Wu CY, Hua H, Zeng ZC, Zheng YF, Yang DD & Jiao R (2024) An Ediacaran glacial deposit in southern margin of the North China Craton: the Luoquan Formation—sedimentology, geochronology and provenance. *Geol. J.* **59**, 2336–2363.
- Wu JX, Tan ZZ, Jia WL, Chen JA & Peng PA (2024) Nitrogen isotopes and geochemistry of the basal Datangpo Formation: contrasting redox conditions in the upper and lower water columns during the Cryogenian interglaciation period. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **637**, 112005, 1–14.
- Xia ZG, Li SL, Hu ZY, Bialik O, Chen TY, Weldeghebriel MF, Fan QS, Fan JX, Wang XD, An SC, Zhang FF, Xu HR, Chen JY, Ji ZH, Shen SZ, Lowenstein TK & Li WQ (2024) The evolution of Earth's surficial Mg cycle over the past 2 billion years. *Sci. Adv.* **10**, eadj5474, 1–10.
- Xu LG, Bekker A, Chamberlain K, Lehmann B, Zhang SH, Mao JW, Yan H & Pan W (2024) Termination of Sturtian glaciation with protracted, multiple volcanic eruptions. *Earth-Sci. Rev.* **255**, 104826, 1–13.
- Xu Y, Yang MY, Yu WC, Du YS, Wang P, Liu C & Liu H (2024) Controls on the formation of Mn carbonates in mudrocks of the Datangpo Formation, northern margin rift basin, Yangtze Block. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **641**, 112125, 1–13.
- Yan MY & Yang J (2024) Fine cloud structures on a hard Snowball Earth. *Geophys. Res. Lett.* **129**, e2023JD040688, 1–16.
- Yang RF, Fan HF, Zhang H, Khan D, Zhang HJ, Fu XW & Wen HJ (2024) What induced long-term Hg enrichment in interglacial sediments during the Cryogenian. *Precam. Res.* **403**, 107304, 1–13.
- Ye H, Wu CZ, Li WQ, Lei RX, Sun XH, Hao WD & Konhauser KO (2024) Deposition and termination of Neoproterozoic iron formations (NIFs): new insights from NIFs in China. *Earth-Sci. Rev.* **256**, 104861, 1–22.
- Ye YT, Wang XM, Wang HJ, Fan HF, Chen ZG, Guo QJ, Wang ZT, Wu CD, Canfield DE & Zhang SC (2024) Hydrological dynamics and manganese mineralization in the wake of the Sturtian glaciation. *Geochim. Cosmochim. Acta* **376**, 14–24.
- Ye YT, Wang XM, Wang HJ, Wu CD & Zhang SC (2024) Exploring climate variability during the Marinoan glaciation: a study of black shale geochemistry. *Gondwana Res.* **128**, 315–324.

- Zawierucha K (2024) Did bioaggregates on the glacier surface trigger life seeding and pedogenesis in terrestrial environments after the Neoproterozoic Snowball Earth? *Soil Biol. Biochem.* **198**, 109526, 1–8.
- Zhang H, Hellweger FL & Luo HW (2024) Genome reduction occurred in early *Prochlorococcus* with an unusually low effective population size. *ISME J.* **18**(1), 1–7.
- Zhang JX, Yang ZC, Wang G, Zhao K, Zhu SX, Zhang L & Lang XG (2024) Tracing the Neoproterozoic Marinoan Snowball Earth thaw from deep sea to coastal waters. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **655**, 112503, 1–17.
- Zhang XS, An YQ, Chen YR, Du WD & Wang LY (2024) Microbial mat, organic-wall microfossils and geochemistry of the Ediacaran inter-diamictite black sediments in NW China: a short-lived habitable benthic, oxic and photic “ice-free oases.” *Precam. Res.* **401**, 107255, 1–20.
- Zhang Y, Zhu GY, Li X, Ai YF, Duan PZ, Li MQ & Liu JC (2024) Chemical-to-reverse weathering triggered a pronounced positive carbon isotope excursion in a forced regressive to transgressive dolostone succession during terminal Ediacaran glaciation. *Glob. Planet. Change* **240**, 104521, 1–16.
- Zhang ZY, Zhu GY, Chen WY, Wu L, Ren R & Zhang CL (2024) Cryogenian–Cambrian tectono-sedimentary evolution, paleoclimate and environment effects, and formation of petroleum resources in the Tarim Block. *Earth-Sci. Rev.* **248**, 104632, 1–12.
- Zhu GY, Zhao K, Ding WM, Wang RM, Ma HR, Lang XG, Li TT, Li C & Shen B (2024) Synglacial carbonate records of snowball Earth ocean composition—evidence from the Nantuo Formation, South China. *Geol. Soc. Am. Bull.* **136**(9/10), 4050–4058.
- Zhu SX, Lang XG, Zhao K, Xing CC & Hou MC (2024) Meteorological influences on marine chemistry during the Cryogenian Sturtian glaciation. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **656**, 112573, 1–14.

2023: 88 8 7 73 37 7 15 13

- Ai J, Siljeström S, Zhong NN, Chen JF, Wang TG, Qiu NS & George SC (2023) Co-existing two distinct formation mechanisms of micro-scale ooid-like manganese carbonates hosted in Cryogenian organic-rich black shales in South China. *Precam. Res.* **393**, 107091, 1–18.
- Álvaro JJ, Billström K, Hallmann C, Hoshino Y & Jorge A (2023) Ediacaran cap carbonates with microbial build-ups capping barite-bearing methane seep networks in the Kaarta Mountains, Taoudeni Basin, Mali. *Sed. Geol.* **455**, 106481, 1–17.
- Árting TB, Boggiani PC, Gaucher C, Fernandes HA & Frei R (2023) Strong positive fractionation of chromium isotopes in iron formation of the Jacadigo Group (Brazil) – a link to enhanced oxygenation during the late Neoproterozoic. *Gondwana Res.* **124**, 39–60.
- Bao XJ, Zhang SH, Jiang GQ, Chan D, Hu YY, Wu HC, Li HY, Wang XQ & Yang TS (2023) Climate changes in the Cryogenian nonglacial epoch: a global synthesis with new findings from the Datangpo Formation in South China. *Glob. Planet. Change* **229**, 104234, 1–11.
- Bowyer FT, Krause AJ, Song YF, Huang KJ, Fu Y, Shen B, Zhu XK, Kipp MA, van Maldegem LM, Brocks JJ, Shields GA, Le Hir G, Mills BJW & Poulton SW (2023) Biological diversification linked to environmental stabilization following the Sturtian Snowball glaciation. *Sci. Adv.* **9**, eadf9999, 1–17.
- Brennan DT, Pearson DM, Link PK & Milton J (2023) Neoproterozoic to early Paleozoic tectono-stratigraphic framework for central Idaho: Windermere Supergroup in the northern sector of the U.S. Cordillera, in Whitmeyer SJ, Williams ML, Kellett DA & Tikoff B (eds) *Laurentia: Turning Points in the Evolution of a Continent*. Geological Society of America, Mem. 220, pp. 457–486.
- Brunoir T, Mulligen C, Sistiga A, Vuu KM, Shih PM, O'Reilly SS, Summons RE & Gold DA (2023) Common origin of sterol biosynthesis points to a feeding strategy shift in Neoproterozoic animals. *Nat. Commun* **14**, 7941, 1–8.

- Budd GE & Mann RP (2023) Two notorious nodes: a critical examination of relaxed molecular clock age estimates of the bilaterian animals and placental mammals. *Syst. Biol.* **73**(1), 223–234.
- Cai CF, Liu DW, Hu YJ, Huang TY, Jiang ZW & Xu CL (2023) Interlinked marine cycles of methane, manganese, and sulfate in the post-Marinoan Doushantuo cap dolostone. *Geochim. Cosmochim. Acta* **346**, 245–258.
- Carvalho Fraga M, Alves Mendes F, Guimarães RA & de Mesquita Barros CE (2023) Biogenic signatures in the Cryogenian Brusque Metamorphic Complex, Brazil: geochronological and paleoclimatic implications. *J. S. Am. Earth Sci.* **131**, 104601.
- Chen XS, Kuang HW, Liu YQ, Peng N, Wang YC & Qi KN (2023) Sedimentary characteristics and evolution of Ediacaran glaciation in western Henan Province, southern North China. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **632**, 111866, 1–20.
- Chen XS, Kuang HW, Liu YQ, Le Heron DP, Wang YC, Bai HQ & Peng N (2023) Sedimentology of the Ediacaran barite-bearing cap dolostone from Gaolan, northern Three Gorges, South China. *Sedimentology* **70**, 381–406.
- Crockford PW, Bar On YM, Ward LM, Milo R & Halevy I (2023) The geologic history of primary productivity. *Curr. Biol.* **33**, 4741–4750.
- de Carvalho DF, Nogueira ACR, Macambiri MJB, Lana CC, dos Santos RF, Guélard J & Sansjofre P (2023) Constraining the diagenesis of the Puga cap carbonate from U–Pb in-situ dating of seafloor crystal fans, southern Amazonian craton, Brazil. *Terra Nova* **35**(4), 276–284.
- de Lima MF, Caxito FA, Large R, Mukherjee I, Uhlein GJ, Hippertt JPTM, Moura SA, Okubo J & Warren L (2023) Trace elements in sedimentary pyrite track redox and nutrient fluctuations in the Ediacaran/Cambrian Bambuí Group, Brazil. *Chemical Geology* **635**, 121625, 1–12.
- Drozd JK, Evans TW & Summons RE (2023) Lipid biomarker comparison of relict and active microbial mats from the McMurdo Ice Shelf, Antarctica. *Org. Geochem.* **179**, 104591, 1–4.
- Dufour F, Davies JHFL, Greenman JW, Skulski T, Halverson GP & Stevenson R (2023) New U–Pb CA–ID–TIMS zircon ages implicate the Franklin LIP as the proximal trigger for the Sturtian Snowball Earth event. *Earth Planet. Sci. Lett.* **618**, 118259, 1–12.
- Eberhard J, Bevan OE, Feulner G, Petri S, Jeroen vH & Baldini JUL (2023) Sensitivity of Neoproterozoic snowball-earth inception to continental configuration, orbital geometry, and volcanism. *Clim. Past* **19**(11), 2203–2023.
- Fairchild IJ, Bao HM, Windmill RJ & Boomer I (2023) The Marinoan cap carbonate of Svalbard: syngenetic marine dolomite with ¹⁷O-anomalous carbonate-associated sulphate. *Depositional Record* **9**, 482–507.
- Feulner G, Bukenberger M & Petri A (2023) Tracing the Snowball bifurcation of aquaplanets through time reveals a fundamental shift in critical-state dynamics. *Earth Syst. Dynam.* **14**, 533–547.
- Fru EC, Al Bahri J, Brosseau C, Bankole O, Aubineau J, El Albani A, Nederbragt A, Oldroyd A, Skelton A, Lowhagen L, Webster D, Fantong WY, Mills JW, Alcott LJ, Konhauser KO & Lyons TW (2023) Transient fertilization of a post-Sturtian Snowball ocean margin with dissolved phosphate by clay minerals. *Nat. Commun.* **14**, 8418,
- Garduno Ruiz D, Goldblatt C & Ahm A-S (2023) Climate shapes the oxygenation of Earth's atmosphere across the Great Oxidation Event. *Earth Planet. Sci. Lett.* **607**, 118071, 1–11.
- Griffiths HJ, Whittle RJ & Mitchell EG (2023) Animal survival strategies in Neoproterozoic ice worlds. *Glob. Change Biol.* **29**(1), 10–20.
- Havsteen JG, Kleinhanns IG, Schröder S, Eickmann B, Izon G, Gogouvitis MD, Nfobeli R, Beukes NJ & Schoenberg R (2023) Evidence for contemporaneous deposition of the Duitschland and Rooihogte formations (Transvaal Supergroup): implications for tempo and mode of Earth's Great Oxidation. *Precam. Res.* **391**, 107055, 1–22.
- Hoffman PF (2023) Glacial erosion on snowball Earth: testing for bias in flux-balance, geographic setting, and tectonic regime. *Can. J. Earth Sci.* **60**, 765–777.

- Hoffman PF (2023) Snowball Earth: the African legacy. *J. Afr. Earth Sci.* **205**, 104975, 1–18.
- Hofmann A & Bindeman I (2023) Earth's first glaciation at 2.9 Ga revealed by triple oxygen isotopes. *Geochem. Persp. Lett.* **26**, 20–24.
- Huang CC, Zou H, Chen HF, Pirajno F, ... & Hou MC (2023) The last Neoproterozoic rift magmatism on the western margin of Yangtze block, South China: new insight of Marinoan onset from low- $\delta^{18}\text{O}$ magmatic events. *Precam. Res.* **390**, 107037.
- Jansen MF, Kang WY, Kite E & Zeng YX (2023) Energetic constraints on ocean circulations of icy ocean worlds. *Planet. Sci. J.* **4**(6), 117, 1–16.
- Isozaki Y (2023) Paleozoic extinctions in cosmoclimatological context: 'non-bolide' extraterrestrial causes for global chilling. *Paleontological Research* **27**(1), 14–24.
- Kang JY, Gregory DD, Gill B, Huang SQ, Lai CX, Chang ZS, Cui H, Belousov I & Xiao SH (2023) Trace element evidence for diverse origins of superheavy pyrite in Neoproterozoic sedimentary strata. *Geochemica et Cosmochimica Acta* **364**, 1–9.
- Kettler C, Phillips E, Pichler K, Smrzka D, Vandyk TM & Le Heron DP (2023) 3D macro- and microfabric analyses of Neoproterozoic diamictites from the Valjean Hills, California (United States). *Front. Earth Sci.* **11**, 929011.
- Kumpulainen RA, Hamilton MA, Söderlund U & Nystuen JP (2023) U–Pb baddeleyite age for the Ottfjället Dyke Swarm, central Scandinavian Caledonides: new constraints on Ediacaran opening of the Iapetus Ocean and glaciations on Baltica – a reply. *GFF* **144**(3/4), 155.
- Lamoso ISM, Babinski M, Caetano-Filho S, Paula-Santos GM, Hollanda MHBM (2023) A record of the Snowball Earth events? The Parecis Basin may encompass three major Neoproterozoic glaciations on the Amazonian craton. *J. S. Am. Earth Sci.* **127**, 104411.
- Li MH, Xu XL, Sun LL, Chen JB, Zhang K, Li DD, Farquhar J, Zhang XL, Sun RY, Macdonald FA, Grasby SE, Fu Y & Shen YN (2023) Deglacial volcanism and reoxygenation in the aftermath of the Sturtian Snowball Earth. *Sci. Adv.* **9**, eadh9502, 1–11.
- Li ZX, Liu YB & Ernst R (2023) A dynamic 2000–540 Ma Earth history: from cratonic amalgamation to the age of supercontinent cycle. *Earth- Sci. Rev.* **238**, 104336, 1–45.
- Li P, Qu HJ, Wang AG & Chen S (2023) A Cryogenian interglacial source rock in South China: geochemistry, spatial distribution and organic matter enrichment. *Precam. Res.* **399**, 107239, 1–17.
- Liu L.P, Jiang ZZ & Chu FY (2023) Sedimentary Mn metallogenesis and coupling among major geoenvironmental events during the Sturtian glacial–interglacial transition. *Minerals* **13**, 712, 1–18.
- Liu P, Liu YG, Gu SF, Hoffman PF & Li SZ (2023) A positive cooling feedback for the Neoproterozoic Snowball Earth initiation. *Geophys. Res. Lett.* **50**(4), e2022GL102020, 1–9.
- Lloyd JC, Preiss WV, Collins AS, Virgo GM, Blades ML, Gilbert SE, Subarkah D, Krapf CBE & Amos KJ (2023) Geochronology and formal stratigraphy of the Sturtian glaciation in the Adelaide Superbasin. *Geol. Mag.* **160**, 1321–1344.
- Lu LH, Han YG, Zhao GC, Huang KJ, Ju PC, Wang ZF, Guo Y, Shao D, Hu HY & Cao XY (2023) Depositional processes of Marinoan-age diamictites and cap carbonates in northwestern Tarim, China: implications for chemical weathering following the Marinoan deglaciation. *Geol. Soc. Am. Bull.* **136**(5/6), 2443–2459.
- Ma XC, Wang JS, Algeo TJ, Wang Z, Cen Y, Chen C, Chen DH, Lu JC & Yang YZ (2023) U–Pb dating of detrital zircons from the Datangpo Formation, South China: implications for Sturtian deglaciation age and Nanhua stratal provenance. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **617**, 11494, 1–13.
- Ma XC, Wang JS, Wang Z, Algeo TJ, Chen C, Cen Y, Yin QZ, Huang C, Xu LY, Huang C & Chen DH (2023) Geochronological constraints on Cryogenian ice ages: zircon U–Pb ages from a shelf section in South China. *Glob. Planet. Change* **222**, 104071, 1–11.

- Macdonald FA & Swanson-Hysell NL (2023) The Franklin Large Igneous Province and Snowball Earth initiation. *Elements* **19**, 296–301.
- Macdonald FA, Yonkee A, Flowers B & Swanson-Hysell NL (2023) Neoproterozoic of Laurentia, in Whitmeyer S, Kellett D, Tikoff B & Williams M (eds) *Laurentia: Turning Points in the Evolution of a Continent*. Geological Society of America, Boulder, CO, Mem. 220, pp. 331–380.
- Menzies J (2023) A micromorphological perspective on the Neoproterozoic Smalfjord and Mortensnes Formation diamictites—Varangerfjord, Norway. *Can. J. Earth Sci.* **60**, 696–712.
- Molén MO (2023) Glaciation-induced features or sediment gravity flows – an analytical review. *J. Palaeogeog.* **12**(4), 487–545.
- Molén MO (2023) Geochemical proxies: paleoclimate or paleoenvironment? *Geosyst. Geoenviron.* **3**(1), 100238.
- Moles NR & Selby D (2023) Implications of new geochronological constraints on the Aberfeldy stratiform barite deposits, Scotland, for the depositional continuity and global correlation of the Neoproterozoic Dalradian Supergroup. *Precam. Res.* **384**, 106925
- Morris FK & Grotzinger JP (2023) Facies and stratigraphy of the basal Ediacaran cap carbonate, Naukluft Mountains, Namibia. *Precam. Res.* **394**, 107113, 1–19.
- Ngugi DK, Salcher MM, Andrei A-S, Ghai R, Klotz F, Chiriac M-C, Ionescu D, Büsing P, Grossart H-P, Xing P, Priscu JC, Alymkulov S & Pester M (2023) Postglacial adaptations enabled colonization and quasi-clonal dispersal of ammonia-oxidizing archaea in modern European large lakes. *Sci. Adv.* **9**, eadc9392, 1–17.
- Orsi,
- Pacheco FERC, Caxito FA, Souza ME, Bento CC, Pedrosa-Soares A & Lana CC (2023) Detrital zircon U–Pb analysis constrain the depositional age and provenance of Cryogenian glacial successions of the Macaúbas group in the northeastern Araçuaí orogen, eastern Brazil. *J. S. Am. Earth Sci.* **121**, 104122,
- Plummer PS (2023) The early Ediacaran Brachina sequence, Flinders Ranges, South Australia: its age, formation and plate tectonic setting. *Austral. J. Earth Sci.* **70**(5), 681–690.
- Pu JP, Macdonald FA, Smith EF, Ramezani J & Swanson-Hysell N (2023) Tonian basins record rifting of Kalahari from Rodinia and no evidence of a pre-Sturtian Kaigas glaciation. *Earth Planet. Sci. Lett.* **624**, 118472, 1–15.
- Qi L, Hou MC, Cawood P, Lang XG, ... & Zhang MX (2023) Neoproterozoic storm deposits in western Yangtze: implications for the sea conditions during the middle Sturtian glaciation. *Precam. Res.* **384**, 106945
- Ren M & Jones B (2023) Ediacaran cap dolostones from South China: petrography, dolomite stoichiometry, and crystal architecture. *Sed. Geol.* **446**, 106345.
- Ren M & Li RF (2023) Rare earth element signatures of Doushantuo cap dolostones capture an increase in oxygen in the anoxic Ediacaran ocean. *Sed. Geol.* **446**, 106343.
- Retallack GJ (2023) Why was there a Neoproterozoic Snowball Earth? *Precam. Res.* **385**(2), 106952, 1–12.
- Rice AHN (2023) U–Pb baddeleyite age for the Ottfjället Dyke Swarm, central Scandinavian Caledonides: new constraints on Ediacaran opening of the Iapetus Ocean and glaciations on Baltica – a comment on the inferred age of Neoproterozoic glaciations. *GFF* **144**(3/4), 152–154.
- Ruiz DG, Goldblatt C & Ahm A-S (2023) Climate shapes the oxygenation of Earth's atmosphere across the Great Oxidation Event. *Earth Planet. Sci. Lett.* **607**, 118071, 1–11.
- Seeley JT & Wordsworth RD (2023) Moist convection is most vigorous at intermediate atmospheric humidity. *Planetary Science Journal* **4**:34, 1–12.
- Segessenman DC & Peters SE (2023) Macrostratigraphy of the Ediacaran System in North America, in Whitmeyer S, Kellett D, Tikoff B & Williams M (eds) *Laurentia: Turning Points in the Evolution of a Continent*. Geological Society of America, Boulder, CO, Mem. 220, pp. 399–424.

- Senger MH, Davies JHFL, Ovtcharova M, Beukes NJ, Gumsley A, Gaynor SP, Ulianov A, Ngobeli R & Schaltegger U (2023) Improving the chronostratigraphic framework of the Transvaal Supergroup (South Africa) through in-situ and high-precision U-Pb geochronology. *Precam. Res.* **392**, 107070, 1–17.
- Shawwa NA, McLoughlin-Coleman TR, Babechuk MG & Rainbird RH (2023) Paleoproterozoic (Huronian) valley-controlled deglacial-fluvial sedimentation, northern Cobalt Basin, Ontario, Canada. *Sed. Geol.* **455**, 106421.
- Simpson C (2023) Book review: Coming together to understand multicellularity. *Trends Ecol. Evol.* **36**(5), 385–386.
- Song HY, An ZH, Ye Q, Stüeken EE, Hu J, Algeo TJ, Tan L, Chu DL, Song HJ, Xiao SH & Tong JN (2023) Mid-latitude habitable environment for marine eukaryotes during the waning stage of the Marinoan snowball glaciation. *Nat. Commun.* **14**, 1564, 1–9.
- Środoń J, Condon DJ, Golubkova E, Millar IL, ... & Liivamägi S (2023) Ages of the Ediacaran Volyn-Brest trap volcanism, glaciations, paleosols, Podillya Ediacaran soft-bodied organisms, and the Redkino-Kotlin boundary (East European craton) constrained by zircon single grain U–Pb dating. *Precam. Res.* **386**(3), 106962, 1–19.
- Stevens M & Mackintosh AN (2023) Location, location, location: survival of Antarctic biota requires the best real estate. *Biol. Lett.* **19**, 20220590, 1–7.
- Sui PS, Sun Wendong, Han N, Wang L, Xie SW, Huang ZH, Wang XH, Gong HM, Liu J, Lin JY, Xiao YY, (2023) Neoproterozoic diamictite of the Luoquan Formation from the North China Block and their implications. *J. Earth Sci.* **34**(4), 1128–1139.
- Taylor HL, Dosseto A, Farkas J, Kingston A, Lorrey A & Shen B (2023) Lithium isotope composition of Ediacaran dolostones from the Nuccaleena and Doushantuo formations. *Austral. J. Earth Sci.* **70**(8), 1159–1183.
- Trower EJ, Gutoski JR, Wala VT, Mackey TJ & Simpson C (2023) Tonian low-latitude marine ecosystems were cold before snowball Earth. *Geophys. Res. Lett.* **50**(5), e2022GL101903.
- Virgo GM, Collins AS, Blades ML & Amos KJ (2023) Tectonic, eustatic and climate controls on facies architecture during the transition to the Neoproterozoic icehouse in the Adelaide Superbasin, Australia. *Sedimentologia* **1**(1), 1–38, doi:10.57035/journals/sdk.2023.e11.1083.
- Uveges BT, Izon G, Ono SH, Beukes NJ & Summons RE (2023) Reconciling discrepant minor sulfur isotope records of the Great Oxidation Event. *Nat. Commun.* **279**, doi.10.1038/s41467-023-35820-w
- Walzer U & Hendel R (2023) Natural climate change and glaciations. *Earth-Sci. Rev.* **241**, 104435, 1–26.
- Wang JY, Jacobson AD, Sageman BB & Hurtgen MT (2023) Application of the $\delta^{44/40}\text{Ca}$ – $\delta^{88/86}\text{Sr}$ multi-proxy to Namibian Marinoan cap carbonates. *Geochim. Cosmochim. Acta* **353**, 13–27.
- Wang YC, Kuang HW, Liu YQ, Zhao FH, Peng N, Chen XS, Qi KN, Liu H, Wang ZX, Zhong Q & Chen JX (2023) Sedimentary evolution from greenhouse to icehouse of Neoproterozoic and age constraints in the northern Yangtze craton. *Glob. Planet. Change* **227**, 104179, 1–20.
- Wang L, Liu Y, Yang CC, Huang H, Hou MC, Yang C & Yin RS (2023) Volcanism intensity and associated climate–ocean–land dynamics during the Cryogenian interglaciation: insights from mercury isotopes. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **623**, 111634, 1–8.
- Wang RM, Shen B, Lang XG, Wen B, Mitchell RN, Ma HR, Yin ZJ, Peng YB, Liu YG & Zhou CM (2023) A great late Ediacaran ice age. *Natl Sci. Rev.* **10**, nwad117, 1–14.
- Wang RM, Xing CC, Wen B, Wang XB, Liu KW, Huang TZ, Zhou CM & Shen B (2023) The origin of cap carbonate after Ediacaran glaciations. *Glob. Planet. Change* **226**, 104141, 1–18.
- Wang RM, Yin ZJ & Shen B (2023) A late Ediacaran ice age: the key node in the Earth system history. *Earth-Sci. Rev.* **247**, 104610, 1–22.

- Watanabe Y, Tajika E & Ozaki K (2023) Biogeochemical transformations after the emergence of oxygenic photosynthesis and conditions for the first rise of atmospheric oxygen. *Geobiology* **21**(5), 537–555.
- Wei-Haas M (2023) Lava outburst may have led to Snowball Earth. *Science* **381**, 120.
- Williams GE (2023) Strong tides during Cryogenian glaciations: tidal rhythmites from early and late Cryogenian glacial successions and interglacial beds, South Australia. *Austral. J. Earth Sci.* **70**(6), 751–762.
- Wu JC & Liu YG (2023) Response of the Snowball Earth to orbital forcing at a high CO₂ level. *J. Clim.* **36**(16), 6,349–6,362.
- Yin YS, Wei GY, Pogge von Strandmann PAE, Lechte MA, Hohl SV, Lin YB, Li D, Chen TY, Yang T, Zhang FF, Isson TT, Zhang H, Cai YF & Ling HF (2023) Widespread clay authigenesis and highly congruent silicate weathering in the Marinoan aftermath. *Earth Planet. Sci. Lett.* **623**, 118423, 1–10.
- Zhao K, Lang XG & Zhu SX (2023) An ice sheet advancing sequence at the beginning of the Cryogenian Sturtian glaciation. *Glob. Planet. Change* **227**, 104185, 1–17.
- Zhu SX, Lang XG, Zhao K & Hou MC (2023) Influence of turbidity deposition on biogeochemical cycling in sediments and oceanic redox stratification during the waning Sturtian glaciation. *Glob. Planet. Change* **228**, 104184, 1–18.
- Zhu GY, Zhang ZY, Jiang H, Chen WY, Li TT & Li X (2023) Evolution of the Cryogenian cratonic basins in China, paleo-oceanic environment and hydrocarbon generation mechanism of ancient source rocks, and exploration potential in 10,000-m-deep strata. *Earth-Sci. Rev.* **244**, 104506, 1–20.
- 2022: 84 5 3 76 14 12 7**
- Aftabi A, Atapour H & Mohsemi S (2022) The Ediacaran reord of glacial dropstones, diamictites and cap carbonates associated with non-metamorphosed banded iron formations (BIFs) in Iran. *Precam. Res.* **378**, 106740, 1–25.
- Aleksandrov D (2022) The origin oof boulders in the Neoproterozoic of Eastern Sayan Ranges, south-west Siberia: glacial transport versus winnowed concretions. *Depos. Rec.* **8**, 869–879.
- Arnscheidt CW & Rothman DH (2022) Presence or absence of stabilizing Earth system feedbacks on different time scales. *Sci. Adv.* **8**, eadc9241, 1–8.
- Banerjee A, Słowakiewicz M & Saha D (2022) On the oxygenation of the Archean and Proterozoic oceans. *Geol. Mag.* **159**(2), 212–219.
- Baum M & Fu MM (2022) Simple stochastic modelling of snowball probability throughout Earth history. *Geochem. Geophys. Geosys.* **23**(11), e2022GC010611, 1–12.
- Baum M, Fu MM & Bourguet S (2022) Sensitive dependence of global climate to continental geometry. *Geophys. Res. Lett.* **49**, e2022GL098843.
- Braun C, Hörner J, Voigt A & Pinto JG (2022) Ice-free tropical waterbelt for Snowball Earth events questioned by uncertain clouds. *Nat. Geosci.* **15**, 489–493.
- Braun C, Voigt A, Hoose C, Ekman AML & Pinto JG (2022) Controls on subtropical cloud reflectivity during a waterbelt scenario for the Cryogenian glaciations. *J. Clim.* **35**(21), 7057–7076.
- Cadeau P, Cartigny P, Thomazo C, Jézéquel D, Leboulanger C, Sarazin G & Ader M (2022) The Dziani Dzaha Lake: A lomg-awaited modern analogue for superheavy pyrites. *Geobiology* **20**(3), 444–461.
- Cai CF, Lyons TW, Sun P, Liu DW, Wang DW, Tino CJ, Luo GM, Peng YY & Jiang L (2022) Enigmatic super-heavy pyrite formation: Novel mechanistic insights from the aftermath of the Surtian Snowball Earth. *Geochim. Cosmochim. Acta* **334**, 65–82.
- Casey P (2022) A geochemical investigation of the Port Askaig ironstones and their potential for U–Pb–Th xenotime geochronology. M.Sc. thesis, University of Stockholm, Sweden, 92 p.
- Chakraborty, N. (2022) Snowball Earth: a critical review on Neoproterozoic glaciation. *J. Geointerface* **1**, 56–62.

- Chang LX, Zhang SH, Li HY, Wu HC & Yang TS (2022) New paleomagnetic insights into the Neoproterozoic connection between South China and India and their position in Rodinia. *Geophys. Res. Lett.* **49**, e2022GL098348.
- Chen GX, Cheng QM, Lyons TW, Shen J, Agterberg F, Huang N & Zhao ML (2022) Reconstructing Earth's atmospheric oxygenation history using machine learning. *Nat. Comms* **13**, 5862, 1–13.
- Chen QA, Liu H, Johnson T, Hartnady M, Kirkland CL, Lu YJ & Sun WD (2022) Intraplate continental basalts over the past billion years track cooling of the mantle and the onset of modern plate tectonics. *Earth Planet. Sci. Lett.* **597**, 117804, 1–6.
- Costa-Paiva EM, Mello B, Santos Bezerra B, Coates CJ, Halanych KM, Brown F, de Moraes Leme J & Trindade RIF (2022) Molecular dating of the blood pigment hemocyanin provides new insight into the origin of animals. *Geobiology* **20**(3), 333–345.
- Evans TW, Kalambokidis MJ, Jungblut AD, Millar JL, Bauersachs T, Grotheer H, Mackey TJ, Hawes I & Summons RE (2022) Lipid biomarkers from microbial mats on the McMurdo Ice Shelf, Antarctica: signatures for life in the cryosphere. *Front. Microbiol.* **13**, 903621, 1–17.
- Fang YH & Xu HF (2022) Coupled dolomite and silica precipitation from continental weathering during deglaciation of the Marinoan Snowball Earth. *Precam. Res.* **380**, 106824, 1–10.
- Flowers RM, Ketcham RA, Macdonald FA, Siddoway CS & Havranek RE (2022) Existing thermochronologic data do not constrain Snowball glacial erosion below the Great Unconformities. *Proc. Natl Acad. Sci (USA)* **119**(38), e2208451119
- Gan T, Zhou GH, Luo TY, Pang K, Zhou MZ, Luo WJ, Wang SJ & Xiao SH (2022) Earliest Ediacaran speleothems and their implications for terrestrial life after the Marinoan snowball Earth. *Precam. Res.* **376**, 10685, 1–22.
- Gao LZ, Ding XZ, Zhang H, Qiao XF, Yin CY, Shi XY & Zhang CH (2022) Advances in Meso-Neoproterozoic isotopic chronostratigraphy in China, in Wang TG (ed.) *Meso-Neoproterozoic Geology and Petroleum Resources in China*. Springer Science Press, Beijing, pp. 1–45.
- Halverson GP, Shen C, Davies JHFL & Wu L (2022) A Bayesian approach to inferring depositional ages applied to a late Tonian reference section in Svalbard. *Front. Earth Sci.* **10**, 798739, 1–18.
- Hao XS, Zhang CL, Zhang HC, Ding T & Ye XT (2022) Origin of the Neoproterozoic Baijianshan banded iron formation at the southeastern margin of the Tarim Block in NW China: Implication for an extremely reducing ocean. *Acta Geol. Sinica*
- Havranek RE & Flowers RM (2022) Zircon (U–Th)/He data for the Colorado Front Range “fourteeners” and testing Cryogenian exhumation of sub-Great Unconformity basement. *Chem. Geol.* **591**, 120702.
- Hodgskiss MSW & Sperling EA (2022) A prolonged two-step oxygenation of Earth's early atmosphere: support from confidence intervals. *Geology* **50**(2), 158–162.
- Hörner J, Voigt A & Braun C (2022) Snowball Earth initiation and the thermodynamics of sea ice. *J. Adv. Modeling Earth Syst.* **14**, e2021MS002734.
- Hohl SV, Rodler AS, Viehmann S, Huang XT, Xu J, Gaucher C, Germs GJB, Hegenberger W, Gopderis S, Wei HZ & Frei R (2022) C, Sr, Nd isotope chemostratigraphy and zircon provenance of the Witvlei Group (Namibia): Neoproterozoic glaciations and seawater evolution. *Precam. Res.* **372**, 106600.
- Hood AvS, Penman DE, Lechte MA, Wallace MW, Giddings JA & Planavsky NJ (2022) Neoproterozoic syn-glacial carbonate precipitation and implications for a snowball Earth. *Geobiology* **20**(2), 175–193.
- Isakson VH, Schmitz MD, Dehler CM, Macdonald FA & Yonkee WA (2022) A robust age model for the Cryogenian Pocatello Formation of southeastern Idaho (northwestern USA) from tandem in situ and isotope dilution U–Pb dating of volcanic tuffs and epiclastic detrital zircons. *Geosphere* **18**(2), 825–849.

- Izon G, Luo GM, Uveges BT, Beukes N, Kitajima K, Ono SH, Valley JW, Ma XY & Summons RE (2022) Bulk and grain-scale minor sulfur isotope data reveal complexities in the dynamics of Earth's oxygenation. *Proc. Natl Acad. Sci. USA* **119**(13), e2025606119, 1–11.
- Krause AJ, Mills BJW, Merdith AS, Lenton TM & Poulton SW (2022) Extreme variability in atmospheric oxygen levels in the late Precambrian. *Sci. Adv.* **8**, eabm8191, 1–11.
- Khan MMSS, Umar M, Pan B, Sun XJ, Ahmed S, Luo C, Zhao FC, Yin ZJ, Qasim M, Jadoon IAK, Shen SZ, Ding L & Zhu MY (2022) A newly discovered Neoproterozoic diamictite-cap carbonate couplet from the western Himalaya: The expansion of the Marinoan snowball Earth glaciation to the northwestern margin of the Indian plate in North Pakistan. *Precam. Res.* **378**, 106759. 1–25.
- Kuang HW, Liu YQ, Peng N, Vandyk TM, Le Heron DP, Zhu HL, Chen XS, Song CG & Qi KN (2022) Qi, K.N. 2022. Ediacaran cap dolomite of Shennongjia, northern Yangtze craton, South China. *Precam. Res.* **368**, 106483, 1–20.
- Lan ZW, Huyskens MH, Le Hir G, Mitchell RN, Yin QZ, Zhang GY & Li XH (2022) Massive volcanism may have foreshortened the Marinoan snowball Earth. *Geophys. Res. Lett.* **49**, e20212GL097156, 1–11.
- Lan ZW, Wu ST, Roberts NMW, Zhang SJ, Cao R, Wang H & Yang YH (2022) Geochronological and geochemical constraints on the origin of highly $^{13}\text{C}_{\text{carb}}$ -depleted calcite in basal Ediacaran cap carbonate. *Geol. Mag.* **159**(8), 1323–1334.
- Lan ZW, Mitchell RN, Gernon, TM & Nordsvan AR (2022) Did an asteroid impact cause temporary warming during snowball Earth? *Earth Planet. Sci. Lett.* **581**, 117407, 1–6.
- Le Heron DP, Busfield M & Smith A (2022) A grounding zone wedge origin for the Palaeoproterozoic Makganyene Formation of South Africa. *Front. Earth Sci.* **10**, 905602, 1–16.
- Le Heron DP, Busfield ME, Chen X, Corleron M, Davies BJ, Dietrich P, Ghiene J-F, Kettler C, Scharfenberg L, Vandyk TM & Wohlschlägl R (2022) New perspectives on glacial geomorphology in Earth's deep time record. *Front. Earth Sci.* **10**, 870359, 1–17.
- Li TT, Zhu GY, Zhao K & Chen ZY (2022) Geochemical characteristics of organic-rich intervals within the Cryogenian non-glacial Datangpo Formation in southern Yangtze Block—implications for paleoenvironment in its control on organic matter accumulation. *Precam. Res.* **378**, 106777, 1–20.
- Liebmann J, Spencer CJ, Kirkland CL & Ernst RE (2022) Large igneous provinces track fluctuations in subaerial exposure of continents across the Archean-Proterozoic transition. *Terra Nova* **34**(4), 323–329.
- Linnemann U, Hofmann M, Gärtner A, Gärtner J, Zieger J, Krause R, Haenel R, Mende K, Ovtcharova M, Schaltegger U & Vickers-Rich P (2022) An upper Ediacaran glacial period in Cadomia: the Granville tillite (Armorican Massif) – sedimentology, geochronology and provenance. *Geol. Mag.* **159**(7), 999–1013.
- Lu K, Mitchell RN, Yang C, Zhou JL, Wu LG, Wang XC & Li XH (2022) Widespread magmatic provinces at the onset of the Sturtian snowball Earth. *Earth Planet. Sci. Lett.* **594**, 117736, 1–9.
- Lucarini V, Serdkova L & Margazoglou G (2022) Lévy noise versus Gaussian-noise-induced transitions in the Ghil–Sellers energy balance model. *Nonlinear Proc. Geophys.* **29**, 183–205.
- Ma HR, Shen B, Lang XG, Peng YB, Huang KJ, Huang TZ, Fu Y & Tang WB (2022) Active biogeochemical cycles during the Marinoan global glaciation. *Geochim. Cosmochim. Acta* **321**, 155–169.
- Macdonald FA, Yonkee A, Flowers R & Swanson-Hysell N (2022) Neoproterozoic of Laurentia, in Whitmeyer SJ, Williams ML, Kellett DA & Tikoff B (eds) *Laurentia: Turning Points in the Evolution of a Continent*. Geological Society of America, Denver, CO, pp. 331–380.
- Mammone N, Bekker A, Chamberlain K & Kuznetsov AB (2022) Testing the early Paleoproterozoic connection of the Superior and Wyoming cratons with geochronology and geochemistry. *Precam. Res.* **381**, 106818, 1–29.

- McDannell KT & Keller CB (2022) Cryogenian glacial erosion of the central Canadian Shield: The 'late' Great Unconformity on thin ice. *Geology* **50**(12), 1336–1340.
- McDannell KT, Keller CB, Guenther WR & Schuster DL (2022) Reply to Flowers et al.: Existing thermochronologic data constrain Snowball glacial erosion below the Great Unconformity. *Proc. Natl Acad. Sci. USA* **119**(38), e2209946119
- McDannell KT, Keller CB, Guenther WR, Zeitler PK & Schuster DL (2022) Thermochronologic constraints on the origin of the Great Unconformity. *Proc. Natl Acad. Sci. USA* **119**(5), e2118682119, 1–11.
- Millikin AEG, Strauss JV, Halverson GP, Bergmann KD, Tosca NJ & Rooney AD (2022) Calibrating the Russøya excursion in Svalbard, Norway, and implications for Neoproterozoic chronology. *Geology* **50**(4), 506–510.
- Nolan M, Xiao SH, Gill B, Reid R & Schwid M (2022) Enigmatic provenance of carbonate clasts in Cryogenian glacial diamictite of the Nantuo Formation in South China. *Precam. Res.* **378**, 106734, 1–12.
- Ojha L, Troncone B, Buffo J, Journaux B & McDonald G (2022) Liquid water on cold exo-Earths via basal melting of ice sheets. *Nat. Commun* **13**, 7521, 1–13.
- Okubo J, Kaufman AJ, Warren LV, Evans MN, Marroquín S, Varni MA, Misi A, Bahniuk AM & Xiao SH (2022) The sulfur isotopic consequence of seawater sulfate distillation preserved in the Neoproterozoic Sete Lagoas post-glacial carbonate, eastern Brazil. *J. Geol. Soc., Lond.*, **179**, jgs2021-091.
- Olson S, Jansen MF, Abbot DS, Halevy I & Goldblatt C (2022) The effect of ocean salinity on climate and its implications for Earth's habitability. *Geophys. Res. Lett.* **49**, e2021GL095748, 1–9.
- Peng YB, Bao HM, Jiang GQ, Crockford PW, Feng D, Xiao SH, Kaufman AJ & Wang JS (2022) A transient peak in marine sulfate after the 635-Ma snowball Earth. *Proc. Natl Acad. Sci. USA* **119**(19), 32117341119,
- Pu JP, Bleeker W, Flowers RM, Hamilton MA, Hoffman PF, Peak BA, Rainbird RH, Rioux M, Schmitz MD & Macdonald FA (2022) Emplacement of the Franklin large igneous province and initiation of the Sturtian Snowball Earth. *Sci. Adv.* **8**, eadc9430, 1–12.
- Ragon C, Lembo V, Lucarini V, Vérard C, Kasparian J & Brunetti M (2022) Robustness of competing climatic models. *J. Clim.* **35**(9), 2769–2784.
- Ramme L & Marotzke J (2022) Climate and ocean circulation in the aftermath of a Marinoan snowball Earth. *Clim. Past* **18**(4), 759–774.
- Retallack GJ (2022) Towards a glacial subdivision of the Ediacaran Period, with an example of the Boston Bay Group, Massachusetts. *Austral. J. Earth Sci.* **69**(2), 223–250.
- Shang XD & Liu PJ (2022) Diverse multicellular algae from the early Ediacaran Doushantuo chert nodules and their palaeoecological implications. *Precam. Res.* **368**, 106508, 1–17.
- Shen WB, Zhu XK, Yan B, Li J, Liu PJ & Poulton SW (2022) Secular variation in seawater redox state during the Marinoan Snowball Earth event and implications for eukaryotic evolution. *Geology* **50**(11), 1239–1244.
- Środoń J, Gerdes A, Kramers J & Bojanowski MJ (2022) Age constraints of the Sturtian glaciation on western Baltica based on U-Pb and Ar–Ar dating of the Lapichi Svita. *Precam. Res.* **371**, 106595, 1–11.
- Sun RY, Grasby SE, Shen J, Xiao JF & Yin RS (2022) Climate/ocean dynamics and possible atmospheric mercury depletion events during the Late Sturtian deglaciation. *Chem. Geol.* **598**, 120830.
- Sun RY, Shen J, Grasby SE, Zhang JW, Chen JS, Yang C & Yin RS (2022) CO₂ buildup drove global warming, the Marinoan deglaciation, and the genesis of the Ediacaran cap carbonates. *Precam. Res.* **383**, 106891, 1–9.
- Uhlein GJ & Uhlein A (2022) Late Cryogenian and late Paleozoic ice ages on the São Francisco craton, east Brazil. *Front. Earth Sci.* **10**, 900101, 1–17.

- Wang XD, Cawood PA, Grasby SE, Sun GY, Zhao LS & Chen ZQ (2022) Mercury anomalies across the Cryogenian-Ediacaran boundary in South China. *Precam. Res.* **379**, 106771.
- Wang C, Evans DAD, Li M, Zhang JH, Han J, Wen B, Wang J & Zhao JF (2022) Proterozoic–Mesozoic development of the Quanji block from northern Tibet and the cratonic assembly of eastern Asia. *Am. J. Sci.* **322**, 705–727.
- Wang YC, Kuang HW, Liu YQ, Chen XS, Zhao FH, Le Heron DP, Vandyk TM, Peng N, Yang ZR & Bai HQ (2022) Composite sand-wedge pseudomorphs suggestive of a frosty Ediacaran–Cambrian transition. *Precam. Res.* **382**, 106873, 1–15.
- Wu CZ, Zhao FF, Yang T, Lei RX, Ye H, Gao BF & Li WQ (2022) Genesis of the Fulu Cryogenian iron formation in South China: Synglacial or interglacial? *Precam. Res.* **376**, 106689, 1–15.
- Xing CC, Wang RM, Shen B, Li C, Lang XG & Huang KJ (2022) The spatial distribution of surface ocean primary productivity in the wake of Marinoan global glaciation. *Glob. Planet. Change* **212**, 103816, 1–13.
- Xu DT, Wang XQ, Zhu JM, Jiang GQ, Shi XY, Wang XL & Sahoo SK (2022) Chromium isotope evidence for oxygenation events in the Ediacaran ocean. *Geochim. Cosmochim. Acta* **323**, 258–275.
- Yan B, Zhu XK, Li ZH & Li J (2022) Origin of the Cryogenian iron formations: Climatic fluctuation coupling with local hydrothermal iron input. *Precam. Res.* **382**, 106885, 1–15.
- Yang FL, Zhou XF, Hu YY, Yang XD & Yang RQ (2022) Neoproterozoic extensional basins and its control on the distribution of hydrocarbon source rocks in the Yangtze craton, South China. *Geosyst. Geoenviron.* **1**(1),
- Yu WC, Algeo TJ, Zhou Q, Wei W, Yang MY, Li F, Du YS, Pan W & Wang P (2022) Evaluation of alkalinity sources to Cryogenian cap carbonates, and implications for cap carbonate formation models. *Glob. Planet. Change* **217**, 103949, 1–0.
- Žárský J, Žárský V, Hanáček M & Žárský V (2022) Cryogenian glacial habitats as a plant terrestrial cradle – the origin of the Anydrophytes and Zygnematophyceae split. *Front. Plant Sci.* **12**, 735020, 1–15.
- Zieger-Hofmann, M, Zieger J, Gärtner A, Mende K, Sagawe A, Mocke H, Mhopjeni K, Marko L, Albert R, Gerdes A & Linnemann U (2022) Correlation of Neoproterozoic diamictites in southern Namibia. *Earth-Sci. Rev.* **233**, 104159, 1–44.
- Zhang B, Cao J, Hu K, Liao ZW, Zhang Y & Shi CH (2022) Microbially-mediated Mn redox cycling and Mn carbonate precipitation in the Marinoan glacial aftermath, South China. *Glob. Planet. Change* **217**, 103950, 1–17.
- Zhang FL, Wang HJ, Ye YT, Liu YK, Lyu YT, Deng Y, Lyu D, Wang XM, Wu HC, Deng SH & Zhang SC (2022) Did high temperature rather than low O₂ hinder the evolution of eukaryotes in the Precambrian? *Precam. Res.* **378**, 106755, 1–25.
- Zhao ZQ, Liu YG & Dai HJ (2022) Sea-glacier retreating rate and climate evolution during marine deglaciation of a snowball Earth. *Glob. Planet. Change* **215**, 103877, 1–9.
- Zhao K, Lang XG, Zhu GY, Feng MS, He R, Guan CG, Li SZ, Zhu SX & Zhou CM (2022) Low sulfate levels during initiation of the Cryogenian Marinoan glaciation. *Precam. Res.* **377**, 106737, 1–11.
- Zhu FZ & Rose BEJ (2022) Multiple equilibria in a coupled climate-carbon model. *J. Clim.* **36**(2), 547–564.
- Zhu GY, Li TT, Zhang ZY, Zhao K, Song HJ, Wang PJ, Yan HH & Song HY (2022) Nitrogen isotope evidence for oxygenated upper ocean during the Cryogenian interglacial period. *Chem. Geol.* **604**, 120929, 1–18.
- Zhu MY, Zhang JM, Yang AH, Li GX, Zhao FC, Lu M, Yin ZJ, Miao LY & Hu CL (2022) Neoproterozoic stratigraphy, depositional environments and hydrocarbon source-reservoir-seal bed assemblage in South China, in Wang TG (ed.) *Meso-Neoproterozoic Geology and Petroleum Resources in China*. Springer Science Press, Beijing, pp. 181–227.

2021: 79 5 14 70 8 14 13

- Ahm A-SC, Bjerrum CJ, Hoffman PF, Macdonald FA, Maloof AC, Rose CV, Strauss JV & Higgins JA (2021) The Ca and Mg isotope record of the Cryogenian Trezona carbon isotope excursion. *Earth Planet. Sci. Lett.* **568**, 117002, 1–13.
- Ai JY, Zhong NN, Zhang TG, Zhang Y & Wang TG (2021) Oceanic water chemistry evolution and its implications for post-glacial black shale formation: insights from the Cryogenian Datangpo Formation, South China. *Chem. Geol.* **566**, 120063, 1–15.
- Al-Hashim M & Corcoran PL (2021) Synsedimentary deformation structures within the Paleoproterozoic Espanola Formation, Huronian Supergroup, Canada: implications for basin tectonism and paleodepositional conditions. *Precam. Res.* **367**, 106441.
- An ZH, Ye Q, Hu J, Tong JN & Tian L (2021) Stratigraphic position of the Cryogenian Songluo biota in Shennongjia area. *Earth Sci.* **48**(10), 3799–3811.
- Araújo R, Araújo Filho R & Coasta L (2021) Tectono-sedimentary evolution of the Paleoproterozoic succession of the Carajás Basin, southeastern Amazonian Craton, Brazil: insights from sedimentology, stratigraphy, and U–Pb detrital zircon geochronology. *Precam. Res.* **362**, 106290.
- Bobrovskiy I, Hope JM, Nettersheim BJ, Volkman JK, Hallmann C & Brocks J (2021) Algal origin of sponge sterane biomarkers negates the oldest evidence for animals in the rock record. *Nat. Ecol. Evol.* **5**, 165–168.
- Casado J (2021) A review of the Neoproterozoic global glaciations and a biotic cause of them. *Earth Syst. Env.* **5**, 811–824.
- Chen XS, Kuang HW, Liu YQ, Le Heron DP, Wang YC, Peng N, Wang ZX, Zhong QA, Yu HL & Chen JX (2021) Revisiting the Nantuo Formation in Shennongjia, South China: a new depositional model and multiple glacial cycles in the Cryogenian. *Precam. Res.* **356**, 106132, 1–19.
- Cheng M, Zhang ZH, Algeo TJ, Liu SL, Liu XD, Wang HY, Chang B, Jin CS, Pan W, Cao MC & Li C (2021) Hydrological controls on marine chemistry in the Cryogenian Nanhua Basin (South China). *Earth-Sci. Rev.* **218**, 103678.
- Collins AS, Blades ML, Merdith AS & Foden JD (2021) Closure of the Proterozoic Mozambique Ocean was instigated by a late Tonian plate reorganization event. *Nat. Commun Earth Env.* **2**, 75, 1–7.
- Crockford PW, Mehra A, Domack EW & Hoffman PF (2021) An occurrence of radially symmetric sedimentary structures in the basal Ediacaran cap dolostone (Keilberg Member) of the Otavi Group. *Commun Geol. Surv. Namibia* **23**, 26–38.
- D’Agrella-Filho MS, Antonio PYJ, Trindade RIF, Teixeira W & Bispo-Santos F (2021) The Precambrian drift history and paleogeography of Amazonia, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 207–241.
- De Kock MO, Luskin CR, Djeutchou C & Wabo H (2021) The Precambrian drift history and paleogeography of the Kalahari craton, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 377–421.
- Defliese WF (2021) The impact of Snowball Earth glaciation on ocean water $\delta^{18}\text{O}$ values. *Earth Planet. Sci. Lett.* **554**, 116661.
- de Vrese P, Stacke T, Rugenstein JC, Goodman J & Brovkin V (2021) Snowfall–albedo feedbacks could have led to deglaciation of snowball Earth starting from the mid-latitudes. *Commun Earth Env.* **2**, 91, 1–9,
- dos Santos RF, Nogueira ACR, Romero GR, Soares JL & Bandeira Junior J (2021) Life in the aftermath of Marinoan glaciation: The giant stromatolite evolution in the Puga cap carbonate, southern Amazon Craton, Brazil. *Precam. Res.* **354**, 106059, 1–13.
- Du QD, Qin ZP, Wang J, Wang ZJ, Deng Q, Yang F (2021) The Cryogenian Nanhua (South China) during the interglacial–glacial transition: geochemistry, sedimentary provenance, and tectonic setting. *Intl Geol. Rev.* **63**(12), 1540–1558.

- Edkins NJ & Davies R (2021) Atmospheric pressure and Snowball Earth deglaciation. *J. Geophys. Res.: Atmos.* **126**, e2021JD035423, 1–14.
- Fakhraee M, Tarhan LG, Planavsky NJ & Reinhard CT (2021) A largely invariant marine dissolved organic carbon reservoir across Earth history. *Proc. Natl Acad. Sci. USA* **118**(40), e2103511118, 1–6.
- Freitas BT, Rudnitzki ID, Morais L, Campos MDR, Almeida RP, Warren LV, Boggiani PC, Caetano-Filho S, Bedoya-Reuda C, Babinski M, Fairchild TR & Trindade RIF (2021) Cryogenian glaciostatic and eustatic fluctuations and massive Marinoan-related deposition of Fe and Mn in the Urucum District, Brazil. *Geology* **49**, 1478–1483.
- Gan T, Luo TL, Pang K, Zhou CM, Zhou GH, Wan B, Li G, Yi QR, Czaja AD & Xiao SH (2021) Cryptic terrestrial fungus-like fossils of the early Ediacaran Period. *Nat. Commun* **12**, 641, 1–12, <https://doi.org/10.1038/s41467-021-20975-1>
- Goddéris Y, Ramstein G & Le Hir G (2021) The Precambrian climate, in Ramstein, G., Landais, A., Bouttes, N., Sepulchre, P., Govin, A. (eds) *Paleoclimatology*, Springer, Berlin, pp. 343–358.
- Gómez-Peral L, Arrouy MJ, Richiano S, Cereceda A, Alé SA & Poiré DG 2021. Unravelling hidden glacial effects in the Cryogenian marine depositional settings of the Tandilia Basin, Argentina. *Precam. Res.* **361**, 106261, 1–22.
- Gong Z (2021) Cyclostratigraphy of the Cryogenian Fiq Formation, Oman and its implications for the age of the Marinoan glaciation. *Glob. Planet. Change* **204**, 103584, 1–12.
- Gong, Z., Evans DAD (2021) Constraints on the Precambrian paleogeography of West African craton, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 423–443.
- Griffiths HJ, Anker P, Linse K, Maxwell J, Post AL, Stevens C, Tulaczyk S & Smith JA (2021) Breaking all the rules: the first recorded hard substrate community far beneath an Antarctic ice shelf. *Front. Mar. Sci.* **8**, 642040, 1–11.
- He R, Lang WG & Shen B (2021) A rapid rise in $\delta^{13}\text{C}$ during the deglaciation of the Marinoan Snowball Earth. *Glob. Planet. Change* **207**, 103672, 1–6.
- Helmy HM, Morad AE & Abdel Rahman HB (2021) Um Zariq formation, southeast Sinai, Egypt: A new record of the Sturtian Snowball Earth event in the Arabian Nubian Shield. *J. Afr. Earth Sci.* **173**, 104048.
- Hoffman PF, Halverson GP, Schrag DP, Higgins JA, Domack EW, Macdonald FA, Pruss SB, Blättler CL, Crockford PW, Hodgkin EB, Bellefroid EJ, Johnson BW, Hodgskiss MSW, Lamothe KG, LoBianco SLC, Busch JF, Howes BJ, Greenman JW & Nelson LL (2021) Snowballs in Africa: sectioning a long-lived Neoproterozoic carbonate platform and its bathyal foreslope (NW Namibia). *Earth-Sci. Rev.* **219**, 103616, 1–231.
- Hoffman PF, Pruss SB, Blättler CL, Bellefroid EJ & Johnson BW (2021) A reference section for the Otavi Group (Damara Supergroup) in Eastern Kaoko Zone near Ongongo, Namibia. *Commun Geol. Surv. Namibia* **23**, 1–25.
- Johnstone CP, Lammer H, Kislyakova KG, Scherf M & Güdel M (2021) The young Sun's XUV-activity as a constraint for lower CO₂-limits in the Earth's Archean atmosphere. *Earth Planet. Sci. Lett.* **576**, 117197.
- Kumpulainen RA, Hamilton MA, Söderlund U & Nystuen JP (2021) U–Pb baddeleyite age for the Ottfjället Dyke Swarm, central Scandinavian Caledonides: new constraints on Ediacaran opening of the Iapetus Ocean and glaciations on Baltica. *GFF* **143**(1), 40–54.
- Kurucz S, Fralick P, Homann M & Lalonde S (2021) Earth's first snowball event: evidence from the early Paleoproterozoic Huronian Supergroup. *Precambrian Research* **365**, 106408, 1–18.
- Kirscher U, Nordsvan A & Schmidt P (2021) Whence Australia: its Precambrian drift history and paleogeography, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 277–303.

- Lagué MM, Pietschnig M, Ragen S, Smith TA & Battisti DS (2021) Terrestrial evaporation and global climate: Lessons from Northland, a planet with a hemispheric continent. *J. Clim.* **34**, 2253–2276.
- Lang XG, Zhao ZQ, Ma HR, Huang KJ, Li SZ, Zhou CM, Xiao SH, Peng YB, Liu YG, Tang WB & Shen B (2021) Cracking the superheavy pyrite enigma: possible roles of volatile organosulfur compound emission. *Natl Sci. Rev.* **8**(10), nwab034.
- Le Heron DP, Busfield ME & Kettler C (2021) Ice-rafted dropstones in “postglacial” Cryogenian cap carbonates. *Geology* **49**(3), 263–267.
- Li FB, Penman D, Planavsky N, Knudsen A, Zhao MY, Wang XL, Isson T, Huang KJ, Wei GY, Zhang SA, Shen J, Zhu XK & Shen B (2021) Reverse weathering may amplify post-Snowball atmospheric carbon dioxide levels. *Precam. Res.* **364**, 106279.
- Liu YG, Liu P, Li DW & Hu HY (2021) Influence of dust on the initiation of Neoproterozoic Snowball Earth events. *J. Clim.* **34**(16), 6673–6689.
- Linnemann U, Hofmann M, Gärtner A, Gärtner J, Zieger J, Krause R, Haenel R, Mende K, Ovtcharova M, Schaltegger U & Vickers-Rich P (2021) An upper Ediacaran glacial period in Dadomia: the Granville tillite (Armorican Massif) – sedimentology, geochronology and provenance. *Geol. Mag.* **159**(7), 1–15.
- Margazoglou G, Grafke T, Laio A & Lucarini V (2021) Dynamical landscape and multistability of a climate model. *Philosophical Transactions of the Royal Society, London, Ser. A*, **477**, 20210019.
- Marzeion B (2021) ESD Ideas: a weak positive feedback between sea level and the planetary albedo. *Earth Syst. Dyn.* **12**, 1057–1060.
- Meert JG, Piverunas AF, Miller SR, Pandit MK & Sinha AK (2021) The Precambrian drift history and paleogeography of India, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 305–331.
- Merdith AS, Williams SE, Collins AS, Tetley MG, Mulder JA, Blades ML, Young A, Armistead SE, Cannon J & Zahirovic S (2021) Extending full-plate tectonic models into deep time: linking the Neoproterozoic and the Phanerozoic. *Earth-Sci. Rev.* **214**, 103477, 1–44.
- Mitchell RN, Gernon TM, Cox GM, Nordsvan AR, Kirscher U, Xuan C, Liu YB, Liu X & He XF (2021) Orbital forcing of ice sheets during snowball Earth. *Nat. Commun.* **12**(1), 4187, 1–9.
- Molén MO (2021) Field evidence suggests that the Paleoproterozoic Gowganda Formation in Canada is non-glacial in origin. *Geologos* **27**(2), 73–91.
- Morais L, Freitas BT, Fairchild TR, Toniolo TF, Campos MDR, Prado GMM, Silva PAS, Rudnitzki ID, Lahr DJG, Leme JM, Philippot P, Lopez M & Trindade RIF (2021) Diverse vase-shaped microfossils within a Cryogenian glacial setting in the Urucum Formation (Brazil). *Precam. Res.* **367**, 106470, 1–19.
- Ning M, Yang F, Ma HR, Lang XG & Shen B (2021) Precipitation of Marinoan cap carbonate from Mn-enriched seawater. *Earth-Sci. Rev.* **218**, 103666.
- Pan W, Cao MC, Du YS, Cheng M, Zhou YQ, Algeo TJ, Zhao MY, Thibault N, Li C, Wei GY & Dahl TW (2021) Paired U and Mo isotopic evidence for pervasive anoxia in the Cryogenian early interglacial ocean. *Precam. Res.* **361**, 106244.
- Pang K, Wu CX, Sun YP, Ouyang Q, Yuan XL, Shen B, Lang XG, Wang RM, Chen Z & Zhou CM (2021) New Ediacara-type fossils and late Ediacaran stratigraphy from the northern Qaidam Basin (China): paleogeographic implications. *Geology*, **49**(10), 1160–1164.
- Pisarevsky SA, Gladkochub DP & Donskaya TV (2021) Precambrian paleogeography of Siberia, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 263–275.
- Poulton SW, Bekker A, Cumming VM, Zerckle AL, Canfield DE & Johnston DT (2021) A 200-million-year delay in permanent atmospheric oxygenation. *Nature* **592**, 232–236.
- Rapalini AE, Franceschinis PR, Sánchez Bettucci L, Arrouy MJ & Poiré DG (2021) The Precambrian drift history and paleogeography of Rio de la Plata craton, in Pesonen L, Salminen J, Elming S-Å,

- Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 243–261.
- Retallack GJ (2021) Paleosols and weathering leading up to Snowball Earth in central Australia. *Austral. J. Earth Sci.* **68**(8), 1122–1148.
- Salminen J, Lehtonen E, Mertanen S, Pesonen L, Elming S-Å & Luoto T (2021) The Precambrian drift history and paleogeography of Baltica, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 155–205.
- Santos RF dos, Nogueira ACR, Romero GR, Soares JL & Bandeira J Jr (2021) Life in the aftermath of Marinoan glaciation: The giant stromatolite evolution in the Puga cap carbonate, southern Amazon craton, Brazil. *Precam. Res.* **354**, 106059, 1–13.
- Shen WB, Zhu XK, Yan B, Qin HY, Gao ZF & Li FB (2021) Sequence stratigraphy of the Cryogenian Nantuo Formation in South China: constraints on Marinoan glaciation dynamics. *J. Asian Earth Sci.* **214**, 104776, 1–16.
- Shields GA, Strachan RA, Porter SM, Halverson GP, Macdonald FA, Plumb KA, de Alvarenga CJ, Banerjee DM, Bekker A, Bleeker W, Brasier A, Chakraborty PP, Collins AS, Condie K, Das K, Evans DAD, Ernst R, Fallick AE, Frimmel H, Fuck R., Hoffman PF, Kamber BS, Kuznetsov AB, Mitchell RN, Roiré DG, Poulton SW, Riding R., Sharma M, Story C, Stueken E, Tostevin R, Turner E, Xiao, SH, Zhang SH, Zhou Y & Zhu MY (2021) A template for an improved rock-based subdivision of the pre-Cryogenian time scale. *J. Geol. Soc., Lond.* **179**(1), doi.org/10.1144/jgs2020-222
- Shinohara, N & Nishitani K (2021) Cryogenian origin and subsequent diversification of the plant cell-wall enzyme XTH family. *Plant Cell Physiol.* **65**(12), 1874–1889.
- Shizuya A, Kaiho K, Tong JN (2021) Marine biomass changes during and after the Neoproterozoic Marinoan global glaciation. *Glob. Planet. Change* **205**, 103610, 1–11.
- Simpson C (2021) Adaptation to a viscous snowball Earth ocean as a path to complex multicellularity. *Am. Naturalist* **198**(5), 590–609.
- Swanson-Hysell NL (2021) The Precambrian paleogeography of Laurentia, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 109–153.
- Teixeira Vilela F, Pedrosa-Soares A, Babinski M, Lana C, Trindade RIF & Santos E (2021) Diamictitic iron formation (DIF) deposits of the Neoproterozoic Nova Aurora Iron District (Macaúbas Group, Southeast Brazil). *J. S. Am. Earth Sci.* **112**, 103614, 1–23.
- Trindade RIF, d’Agrella-Filho MS, Antonio PYJ & Teixeira W (2021) The Precambrian drift history and paleogeography of Congo – São Francisco craton, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 445–464.
- Vandyk TM, Kettler BJ, Davies BJ, Shields GA, Candy I & Le Heron DP (2021) Reassessing classic evidence for warm-based Cryogenian ice on the western Laurentian margin: the “striated pavement” of the Mineral Fork Formation, USA. *Precam. Res.* **363**, 106345.
- van Maldegem LM, Nettersheim BJ, Leider A, Brocks JJ, Adam P, Schaeffer P & Hallmann C (2021) Geological alteration of Precambrian steroids mimics early animal signatures. *Nat. Ecol. Evol.* **5**, 169–173.
- Vérard C (2021) 888–444 Ma global plate tectonic reconstruction with emphasis on the formation of Gondwana. *Front. Earth Sci.* **9**, 666153.
- Virgo GM, Collins AS, Amos KJ, Farkaš J, Blades ML & Subarkah D (2021) Descending into the “snowball”: high resolution sedimentological and geochemical analysis across the Tonian to Cryogenian boundary in South Australia. *Precam. Res.* **367**, 106449, 1–28.
- Wang X, Zhang XL & Liu, W (2021) Biostratigraphic constraints on the age of Neoproterozoic glaciation in North China. *J. Asian Earth Sci.* **219**, 104894, 1–10.

- Wordsworth R (2021) How likely are snowball episodes near the inner edge of the habitable zone? *Astrophys. J. Lett.* **912**, L14, 1–5.
- Wu C, Yang T, Shields GA, Bian X, Gao B, Ye H, Li W (2021) Termination of Cryogenian ironstone deposition by deep ocean euxinia. *Geochem. Persp. Lett.* **15**, 1–5.
- Wu L, Guan SW, Ren R, Zhang CY & Feng XQ (2021) Neoproterozoic glaciations and rift evolution in the northwest Tarim Craton, China: new constraints from geochemical, geochemical, and geophysical data. *Intl Geol. Rev.* **63**, 1–20.
- Wu JC, Liu YG & Zhao ZQ (2021) How should snowball Earth deglaciation start. *J. Geophys. Res.: Atmos.* **126**(2), e2020JD033833.
- Xiao D, Cao J, Luo XC, Tan XC, Xiao WY, He Y & Li KY (2021) Neoproterozoic postglacial paleoenvironment and hydrocarbon potential: a review and new insights from the Doushantuo Formation Sichuan Basin. *Earth-Sci. Rev.* **212**, 103451.
- Zhang B, Cao J, Liao ZW, Zhang Y, Wu QM, Shi CH & Hu K (2021) Dynamic biogeochemical cycling and mineralization of manganese of hydrothermal origin after the Marinoan glaciation. *Chem. Geol.* **584**, 120502, 1–24.
- Zhang SH, Chang LX, Zhao HQ, Ding JK, Xian HB, Li HY, Wu HC & Yang TS (2021) The Precambrian drift history and paleogeography of the Chinese cratons, in Pesonen L, Salminen J, Elming S-Å, Evans DAD & Veikkolainen T (eds) *Ancient Supercontinents and the Paleogeography of Earth*. Elsevier, Amsterdam, pp. 333–375.
- Zhang H, Sun Y, Zeng QL, Crowe SA & Luo HW (2021) Snowball Earth, population bottleneck and *Prochlorococcus* evolution. *Proc. R. Soc., Lond., Ser. B*, **288**, 20211956, 1–9.
- Zhao ZQ, Shen B, Zhu JM, Lang XG, Wu GL, Tan D, Pei HX, Huang TZ, Ning M & Ma HR (2021) Active methanogenesis during the melting of Marinoan snowball Earth. *Nat. Commun* **12**, 955.
- Zhou T, Pan X, Sun RY, Deng CZ, Shen J, Kwon SY, Grasby SE, Xiao JF & Yin RS (2021) Cryogenian interglacial greenhouse driven by enhanced volcanism: evidence from mercury records. *Earth Planet. Sci. Lett.* **564**, 116902, 1–7.
- Zhou MZ, Wan B, Zhou L, Yang EL, Yang LS, Luo TY (2021) Origin of K-bentonites in the Doushantuo cap dolostones from South China and its potential link with the sedimentary model of the Marinoan cap dolostones. *Precam. Res.* **366**, 106416. 1–17.

2020: 85 12 15 69 13 20 8

- Ai J, Zhong N, George SC, Zhang, Y, Yao L & Wang T (2020) Evolution of paleoweathering during the late Neoproterozoic in South China: implications for paleoclimatic conditions and organic carbon burial. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **555**, 109843.
- Arnscheidt, C.W & Rothman DH (2020) Routes to global glaciation. *Phil. Trans. R. Soc., Ser. A*, **476**, 2020303, <http://dx.org/10.1098/rspa.2020.0303>
- Bai HQ, Kuang HW, Liu YQ, Peng N, Chen XS & Wang YC (2020) Marinoan-aged red beds at Shenongja, South China: Evidence against global-scale glaciation during the Cryogenian. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **559**, 109967.
- Banerjee A, Słowakiewicz M & Saha D (2020) On the oxygenation of the Archaean and Proterozoic oceans. *Geol. Mag.* **159**, 212–219.
- Bekker A, Krapež B & Karhu JA (2020) Correlation of the stratigraphic cover of the Pilbara and Kaapvaal cratons recording the lead up to Paleoproterozoic Icehouse and the GOE. *Earth-Sci. Rev.* **211**, 103389.
- Bowles AMC, Bechtold U & Paps J (2020) The origin of land plants is rooted in two bursts of genomic novelty. *Curr. Biol.* **30**, 530–536.
- Burzinski G, Decocchi TA, Narbonne GM & Dalrymple RW (2020) Cryogenian *Aspidella* from northwestern Canada. *Precam. Res.* **336**, 105507, 1–9.
- Chambers J (2020) The effect of seafloor weathering on planetary habitability. *Astrophys. J.* **896**, 96.

- Caquineau T, Paquette J-L, Gannoun A & Philippot P (2020) Lu-Hf systematics of 4.0–2.3 Ga old zircons from the Turee Creek Group (Pilbara Craton, W. Australia): implications on the rise of atmospheric oxygen and global glaciation during the Paleoproterozoic. *Precam. Res.* **348**, 105859.
- Chen XS, Liu YQ, Kuang HW, Liu YQ, Wang YC, Yang ZR, Vandyk TM, Le Heron DP, Wang SY, Geng YS, Bai HQ, Nan P & Xia WW (2020) Subglacial bedforms and landscapes formed by ice sheet of the Ediacaran-Cambrian age in west Henan, North China. *Precam. Res.* **344**, 105727.
- Chen C, Wang JS, Wang Z, Peng YB, Chen XH, Ma XC, Cen Y, Zhao J & Zhou P (2020) Variation in index of alteration (CIA) in the Ediacaran Doushantuo Formation and its environmental implications. *Precam. Res.* **347**, 105829.
- Conor CHH & Preiss WV (2020) Cryogenian glaciomarine megaclasts of the McDonald Corridor, Bimbowrie Conservation Park, Olary Region, South Australia. *Austral. J. Earth Sci.* **67**(6), 857–872.
- De Castro MP, Nascimento Queiroga G, Martins M, Pedrosa-Soares AC, Dias L, Lana C, Babinski M, Alkmim AR & de Silva MA (2020) Provenance shifts through time in superposed basins: from early Cryogenian glaciomarine to late Ediacaran orogenic sedimentation (Aracuaí Orogen, SE Brazil). *Gondwana Res.* **87**, 41–66.
- Del Cortona A, Jackson CJ, Bucchini F, Van Bel M, D'hondt S, Škaloud P, Delwiche CF, Knoll AH, Raven JA, Verbruggen H, Vandepoele K, De Clerck O & Leliaert F (2020) Neoproterozoic origin and multiple transitions to macroscopic growth in green seaweeds. *Proc. Natl Acad. Sci. USA* **117**, 2551–2559.
- Delpomdor F, Callec Y, Bailly L, Mashigiro EH, Ilunga S, Sebagenzi S, Mupande JF, Kamata D & Cailteux J (2020) Sedimentary evolution and chemostratigraphy of the post-Sturtian cap carbonate-like Dolomie Tigrée Formation (Katanga Supergroup) in the Democratic Republic of the Congo. *J. Afr. Earth Sci.* **162**, 103727.
- Dey S, Dasgupta P, Das K & Matin A (2020) Neoproterozoic Blaini Formation of Lesser Himalaya, India: fiction and Fact. *Geol. Soc. Am. Bull.* **132**(11/12), 2267–2281.
- Erickson TM, Kirkland CL, Timms NE, Cavosie AJ & Davison TM (2020) Precise radiometric age establishes Yarrabubba, Western Australia, as Earth's oldest recognized meteorite impact structure. *Nat. Commun* **11**, 300, 1–8.
- Eyster A, Weiss BP, Karlstrom KE & Macdonald FA (2020) Paleomagnetism of the Chuar Group and evaluation of the late Tonian Laurentian apparent polar wander path with implications for the makeup and breakup of Rodinia. *Geol. Soc. Am. Bull.* **132**, 710–738.
- Flowers RM, Macdonald FA, Siddoway CS & Havranek R (2020) Diachronous development of Great Unconformities before Neoproterozoic Snowball Earth. *Proc. Natl Acad. Sci. USA* **117**, 10172–10180.
- Gao YP, Zhang XL, Xu YL, Fang CX, Gong YZ & Shen YN (2020). High primary productivity during the Ediacaran Period revealed by the covariation of paired C-isotopic records from South China. *Precam. Res.* **349**, 105411.
- Graham RJ & Pierrehumbert RT (2020) Thermodynamic and energetic limits on continental silicate weathering strongly impact the climate and habitability of wet, rocky worlds. *Astrophys. J.* **896**, 115, 1–22.
- Greaney AT, Rudnick RL, Romaniello SJ, Johnson AC, Gaschnig RM & Anbar AD (2020) Molybdenum isotope fractionation in glacial diamictites tracks the onset of oxidative weathering of the continental crust. *Eart Planet. Sci. Lett.* **534**, 116083.
- Green JAM, Davies HS, Duarte JC, Creveling JR & Scotese C (2020) Weak tides during Cryogenian glaciations. *Nat. Commun* **11**, 6227.
- Hallmann C, Nettersheim BJ, Brocks JJ, Schwelm A, Hope JM, Not F, Lomas M, Schmidt C, Schiebel R, Nowack ECM, De Decker P, Pawlowski J, Bowser SS, Bobrowskiy I, Zonneveld K & Stuhr M

- (2020) Reply to: Sources of C₃₀ steroid biomarkers in Neoproterozoic-Cambrian rocks and oils. *Nat. Ecol. Evol.* **4**, 37–39.
- Halverson G., Porter S & Shields G (2020) The Tonian and Cryogenian periods, in Gradstein FM, Ogg JG, Schmitz MD & Ogg GM (eds) *Geologic Time Scale 2020, Vol. 1*. Elsevier, Amsterdam, pp. 495–519.
- Hartley A, Kurjanski B, Pugsley J & Armstrong J (2020) Ice-rafting in lakes in the early Neoproterozoic: dropstones in the Diabaig Formation, Torridon Group, NW Scotland. *Scottish J. Geol.* **10**, <https://doi.org/10.1144/sjg2019-017>
- He RL, Jiang GQ, Lu WY & Lu ZL (2020) Iodine records from the Ediacaran Doushantuo cap carbonates of the Yangtze Block, South China. *Precam. Res.* **347**, 105843.
- Hiatt EE, Pufahl PK & Guimarães da Silva L (2020) Iron and phosphorus biochemical systems and the Cryogenian–Ediacaran transition, Jacadigo basin, Brazil: Implications for the Neoproterozoic Oxygenation Event. *Precam. Res.* **337**, 105533.
- Hu J, Li C, Tong JN, Ye Q, Tian L, An ZH, Dodd MS & Algeo TJ (2020) Glacial origin of the Cryogenian Nantuo Formation in eastern Shennongjia area (South China): implications for macroalgal survival. *Precam. Res.* **351**, 105969, 1–19.
- Jellinek AM, Lenardic A & Perrehumert RT (2020) Ice, fire, or fizzle: The climate footprint of Earth's supercontinental cycles. *Geochem. Geophys. Geosyst.* **21**, e2019GC008464, 1–45.
- Jiang L, Fakhree M, Cai CF & Worden RH (2020) Sulfur cycling during progressive burial in sulfate-rich marine carbonates. *Geochem. Geophys. Geosyst.* **21**(12), e2020GC009383.
- Keeman J, Turner S, Haines PW, Belousova E, Ireland T, Brouwer P, Foden J & Wörner G (2020) New U–Pb, Hf and O isotope constraints on the provenance of sediments from the Adelaide Rift Complex – Documenting the key Neoproterozoic to Cambrian succession. *Gondwana Res.* **83**, 248–278.
- Kennedy K & Eyles N (2020) Syn-rift mass flow generated 'tectonofacies' and 'tectonosequences' of the Kingston Peak Formation, Death Valley, California, and their bearing on supposed Neoproterozoic panglacial climates. *Sedimentology* **68**(1), 352–381.
- Krissansen-Totton J & Catling DC (2020) A coupled carbon-silica cycle model over Earth history: Reverse weathering as a possible explanation of a warm mid-Proterozoic climate. *Earth Planet. Sci. Lett.* **537**, 116181.
- Laakso TA & Schrag DP (2020) The role of authigenic carbonate in Neoproterozoic carbon isotope excursions. *Earth Planet. Sci. Lett.* **549**, 116534.
- Lan ZW, Huyskens MH, Lu K, Li XH, Zhang GY, Lu DB & Yin QZ (2020) Toward refining the onset age of Sturtian glaciation in South China. *Precam. Res.* **338**, 105555.
- Le Heron DP, Eyles N & Busfield ME (2020) The Laurentian Neoproterozoic Glacial Interval: reappraising the extent and timing of glaciation. *Austrian J. Earth Sci.* **113**, 59–70.
- Lehmer OR, Catling DC, Buick R, Brownlee DE & Newport S (2020) Atmospheric CO₂ levels from 2.7 billion years ago inferred from micrometeorite oxidation. *Sci. Adv.* **6**, eaay4644, 1–8.
- Li F, Lang X, Ma H, Cui Y, Pei H & Shen B (2020) Heterogeneous seawater phosphorus concentrations during the Sturtian glaciation: evidence from P/Fe ratios of Fulu Formation ironstone in South China. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **537**, 109409.
- Li J, Hao CG, Wang ZH, Dong L, Wang YW, Huang KJ, Lang XG, Huang TZ, Yuan HL, Zhou CM & Shen, B (2020) Continental weathering intensity during the termination of the Marinoan Snowball Earth: Mg isotope evidence from the basal Doushantuo cap carbonate in South China. *Palaeogeog., Palaeoclimatol. Palaeoecol.* **552**, 109774, 1–12.
- Liljestrand FL, Knoll AH, Tosca NJ, Cohen PA, Macdonald FA, Peng YB & Johnston DT (2020) The triple oxygen isotope composition of Precambrian chert. *Eart Planet. Sci. Lett.* **537**, 116167.
- Liljestrand FL, Laakso TA, Macdonald FA, Schrag DP & Johnston DT (2020) Isotopically anomalous organic carbon in the aftermath of the Marinoan snowball Earth. *Geobiology* **18**, 476–485.

- Liu YG, Yang J, Bao HM, Shen B & Hu YY (2020) Large equatorial seasonal cycle during Marinoan snowball Earth. *Sci. Adv.* **6**, eaay2471.
- Lobo AH & Bordoni S (2020) Atmospheric dynamics in high-obliquity planets. *Icarus*, **340**, 113592.
- Love GD, Zumberge JA, Cárdenas P, Sperling EA, Rohrsson M, Grosjean E, Grotzinger JP & Summons RE (2020) Matters Arising: Sources of C₃₀ steroid biomarkers in Neoproterozoic-Cambrian rocks and oils. *Nat. Ecol. Evol.* **4**, 34–36.
- Lowe DR & Byerly GR (2020) The non-glacial and non-cratonic origin of an early Archean felsic volcanoclastic unit, Barberton Greenstone Belt, South Africa. *Precam. Res.* **341**, 105647.
- Lloyd JC, Blades ML, Counts JW, Collins AS, Amos KJ, Wade BP, Hall JW, Hore S, Ball AL, Shahin S & Drabsch M (2020) Neoproterozoic geochronology and provenance of the Adelaidean Superbasin. *Precam. Res.* **350**, 105849.
- MacLennan SA, Eddy MP, Merschat AJ, Mehra AK, Crockford PW, Maloof AC, Southworth CS & Schoene B (2020) Geologic evidence for an icehouse Earth before the Sturtian global glaciation. *Sci. Adv.* **6**, eaay6647, 1–5.
- Mattias Green JA, Davies HS, Duarte JC, Creveling JR & Scotese C (2020) Weak tides during Cryogenian glaciations. *Nat. Commun* **11**, 6227.
- Nelson LL, Smith EF, Hodgkin EB, Crowley JL, Schmitz MD & Macdonald FA (2020) Geochronological constraints on Neoproterozoic rifting and onset of the Marinoan glaciation from the Kingston Peak Formation in Death Valley, California. *Geology* **48**, 1083–1087.
- Okubo J, Klyukin YI, Warren LV, Sublett DM Jr, Bodnar RJ, Gill BC & Xiao SH (2020) Hydrothermal influence on barite precipitates in the basal Ediacaran Sete Lagoas cap dolostone, São Francisco Craton, central Brazil. *Precam. Res.* **340**, 105628.
- Park Y, Swanson-Hysell NL, Lisiecki LE & Macdonald FA (2020) Evaluating the relationship between the area and latitude of large igneous provinces and Earth's long-term climate state, in Ernst RE, Dickson AJ & Bekker A (eds) *Large Igneous Provinces: A Driver of Global Environmental and Biotic Change*. American Geophysical Union, Geophys. Monogr. 255, pp. 153–168.
- Park Y, Swanson-Hysell NL, MacLennan SA, Maloof AC, Gebreslassie M, Tremblay MM, Schoene B, Alene M, Anttila ESC, Tesema T & Haileab B (2020) The lead-up to the Sturtian Snowball Earth: Neoproterozoic chemostratigraphy time-calibrated by the Tambien Group of Ethiopia. *Geol. Soc. Am. Bull.* **132**, 1119–1149.
- Payne RC, Brownlee D & Kasting JF (2020) Oxidized micrometeorites suggest either high pCO₂ or low pN₂ during the Neoproterozoic. *Proc. Natl Acad. Sci. USA* **117**, 1360–1366.
- Peng Y, Dong L, Ma HR, Wang RM, Lang SG, Peng YB, Qin SJ, Liu W & Shen B (2020) Surface ocean nitrate-limitation in the aftermath of Marinoan snowball Earth: Evidence from the Ediacaran Doushantuo Formation in the western margin of the Yangtze Block, South China. *Precam. Res.* **347**, 105846.
- Qi L, Cawood PA, Yang JH, Xu YJ & Du YS (2020) Quantifying temperature variation between Neoproterozoic cryochron – nonglacial interlude, Nanhua Basin, South China. *Precam. Res.* **351**, 105967, 1–10.
- Romero GR, Sanchez EAM, Soares JL, Nogueira ACR & Fairchild TR (2020) Waxing and waning of microbial laminites in the aftermath of the Marinoan Glaciation at the margin of the Amazon Craton (Brazil). *Precam. Res.* **348**, 105856.
- Rooney AD, Cantine MD, Bergmann KD, Gómez-Pérez I, Al Baloushim B, Boag TH, Busch JF, Sperling EA & Strauss JV (2020) Calibrating the co-evolution of Ediacaran life and environment. *Proc. Natl Acad. Sci. USA* **117**, 16824–16830.
- Rooney AD, Yang C, Condon DJ, Zhu MY & Macdonald FA (2020) U–Pb and Re–Os geochronology tracks stratigraphic condensation in the Sturtian snowball Earth aftermath. *Geology* **48**, 625–629.
- Rud'ko SV, Kuznetsov NB, Shatsillo AV, Rud'ko DV, Malishev S, Dubenskiy A, Sheshukov V, Kanygina N & Romanyuk TV (2020) Sturtian glaciation in Siberia: evidence of glacial origin and U–Pb

- dating of the diamictites of the Chivida Formation in the North of the Yenisei Ridge. *Precam. Res.* **345**, 105778.
- Schier K, Bau M, Smith AJB, Beukes NJ, Coetzee LL & Viehmann S (2020) Chemical evolution of seawater in the Transvaal Ocean between 2426 Ma (Ongeluk Large Igneous Province) and 2413 Ma (Kalahari Manganese Field). *Gondwana Res.* **88**, 373-388.
- Soares JL, Nogueira ACR, dos Santos RF, Sandsjöföre P, Ader M & Truckenrodt W (2020) Microfacies, diagenesis and hydrocarbon potential of the Neoproterozoic cap carbonate of southern Amazon Craton. *Sed. Geol.* **406**, 105720.
- Somelar P, Soomer S, Driese SG, Lepland A, Stinchcomb GE & Kirimäe K (2020) CO₂ drawdown and cooling at the onset of the Great Oxidation Event recorded in 2.45 Ga paleoweathering crust. *Chem. Geol.* **548**, 119678.
- Summerhayes CP (2020) *Paleoclimatology: from Snowball Earth to the Anthropocene*. Wiley Blackwell, 560 p.
- Terada K, Morota T & Kato M (2020) Asteroid shower on the Earth-Moon system immediately before the Cryogenian period revealed by KAGUYA. *Nat. Commun* **11**, 3453.
- Tian ZL & Wisdom J (2020) Vertical angular momentum constraint on lunar formation and orbital history. *Proc. Natl Acad. Sci. USA* **117**, 15460–15464.
- Trower EJ (2020) The enigma of Neoproterozoic giant ooids—fingerprints of extreme climate? *Geophys. Res. Lett.* **47**(4), e2019GL086146.
- Tyrrell T (2020) Chance played a role in determining whether Earth stayed habitable. *Commun Earth Env.* **1**, 61, 1–10.
- Wang Z, Chen C, Wang JS, Suess E & Xiao SH (2020) Wide but not ubiquitous distribution of glendonite in the Doushantuo Formation, South China: Implications for Ediacaran climate. *Precam. Res.* **338**, 105586.
- Wang P, Du YS, Yu WC, Algeo TJ, Zhou Q, Xu YA, Qi LA, Yuan LJ & Pan W (2020) The chemical index of alteration (CIA) as a proxy for climate change during glacial-interglacial transitions in Earth history. *Earth-Sci. Rev.* **201**, 103032.
- Warke MR, Di Rocco T, Zerckle AL, Lepland A, Prave AR, Martin AP, Ueno Y, Condon DJ & Claire MW (2020) The Great Oxidation Event preceded a Paleoproterozoic “snowball Earth”. *Proc. Natl Acad. Sci. USA* **117**(2), 13314–13320.
- Wei GY, Wei W, Wang D, Li T, Jang XP, Shields GA, Zhang FF, Li GJ, Chen TY, Yang T & Ling HF (2020) Enhanced chemical weathering triggered an expansion of euxinic seawater in the aftermath of the Sturtian glaciation. *Earth Planet. Sci. Lett.* **539**, 116244.
- Wu C, Yang T, Shields GA, Bian X, Gao B, Ye H & Li W (2020) Termination of Cryogenian ironstone deposition by deep ocean euxinia. *Geochem. Persp. Lett.* **15**, 1–5.
- Xiao SH & Narbonne GM (2020) The Ediacaran Perior, in Gradstein FM, Ogg JG, Schmitz MD & Ogg GM (eds) *Geologic Time Scale 2020, Vol. 1*. Elsevier, Amsterdam, pp. 521–561.
- Xiao WY, Cao J, Luo B, He Y, Zhou G, Zuo ZX, Xiao D & Hu K (2020) Marinoan glacial aftermath in South China: paleo-environmental evolution and organic carbon accumulation in the Doushantuo shales. *Chem. Geol.* **555**, 119838.
- Yang J, Ji WW & Zeng YX (2020) Transition from eyeball to snowball driven by sea-ice rift on tidally locked terrestrial planets. *Nat. Astron.* **4** 58–66.
- Yang XX, Long XP, Li J, Dong, YP & Zhao BS (2020) Mo isotopic response to the end of Neoproterozoic Marinoan glaciation: evidence from a sedimentary profile in South China. *Precam. Res.* **339**, 105609.
- Ye Q, Tong JN, Pang K, Tian L, Hu J & An ZH (2020) Fossils or sedimentary structures? Carbonaceous spheroids from the shale of the Cryogenian Nantuo Formation in Shennongjia area, South China. *Precam. Res.* **345**, 105759.
- Youbi N, Ernst RE, Söderlund U, Boumehdi MA, Ait Lahna A, Tassinari CCG, El Moume W & Bensalah MK (2020) The Central Iapetus magmatic province: an updated review and link with the ca 580

- Ma Gaskiers glaciation, in Adatte T, Bond DPG & Keller G (eds) *Mass Extinctions, Volcanism, and Impacts: New Developments*. Geological Society of America, Sp. Pap. 544, pp. 35–66.
- Zeh A, Wilson AH & Gerdes A (2020) Zircon U–Pb–Hf isotope systematics of Transvaal Supergroup – constraints for the geodynamic evolution of the Kaapvaal Craton and its hinterland between 2.65 and 2.06 Ga. *Precam. Res.* **345**, 105760, 1–20.
- Yu WC, Algeo TJ, Zhou Q, Du YS & Wang P (2020) Cryogenian cap carbonate models: a review and critical assessment. *Palaeogeography, Palaeoclimatology, Palaeoecology* **552**, 109774, 1–26.
- Yue WS & Yang J (2020) Effect of sea-ice drift on the onset of Snowball climate on rapidly rotating aqua-planets. *Astrophys. J. Lett.* **898**(1), L19.
- Zhou CM, Huyskens MH, Xiao SH & Yin QZ (2020) Refining the termination age of the Cryogenian Sturtian glaciation in South China. *Paleoworld* **29**, 462–468.
- Zhou Y, Pogge von Strandmann PAE, Zhu MY, Ling HF, Manning C, Li D, He TC & Shields GA (2020) Reconstructing Tonian seawater $^{87}\text{Sr}/^{86}\text{Sr}$ using calcite microspar. *Geology* **48**, 462–467.
- Zhu GY, Li TT, Zhang ZY, Zhao K & Wang PJ (2020) Distribution and geodynamic setting of the Late Neoproterozoic—early Cambrian hydrocarbon source rocks in the South China and Tarim Blocks. *J. Asian Earth Sci.* **201**, 104504
- Zhu GY, Yan HH, Chen WY, Yan L, Zhang KJ, Li TT, Chen ZY, Wu GH & Santosh M (2020) Discovery of Cryogenian interglacial source rocks in the northern Tarim, NW China: implications for Neoproterozoic paleoclimatic reconstructions and hydrocarbon exploration. *Gondwana Res.* **80**, 370–384.
- Zumberge JA, Rocher D & Love GD (2020) Free and kerogen-bound biomarkers from late Tonian sedimentary rocks record abundant eukaryotes in mid-Neoproterozoic marine communities. *Geobiology* **18**(3) 326–347.
- 2019: 85 7 3 74 13 21 14**
- Agic H, Högström AES, Moczydłowska M, Jensen S, Palacios T, Meinhold G, Ebbestad JOR, Taylor WL & Høyberget M (2019) Organically-preserved multicellular eukaryote from the early Ediacaran Nyborg Formation, Actic Norway. *Sci. Rep.* **9**, 14659.
- Ahm A-SC, Maloof AC, Macdonald FA, Hoffman PF, Bjerrum CJ, Bold U, Rose CV, Strauss JV & Higgins JA (2019) An early diagenetic deglacial origin for basal Ediacaran “cap dolostones”. *Earth Planet. Sci. Lett.* **506**, 292–307.
- Araújo R & Nogueira A (2019) Serra Sul diamictite of the Carajás Basin (Brazil): a Paleoproterozoic glaciation on the Amazon craton. *Geology* **47**, 1166–1170.
- Bono RK, Tarduno JA, Nimmo F & Cottrell RD (2019) Young inner core inferred from Ediacaran ultra-low geomagnetic field intensity. *Nat. Geosci.* **12**, 143–147.
- Cailteux JLH & Putter TD (2019) The Neoproterozoic Katanga Supergroup (D. R. Congo): state-of-the-art and revisions of the lithostratigraphy, sedimentary basin and geodynamic evolution. *J. Afr. Earth Sci.* **150**, 522–531.
- Chen YJ, Chen WY, Li QG, Santosh M & Li JR (2019) Discovery of the Huronian glaciation event in China: evidence from glacial diamictites in the Hutuo Group in Wutai Shan. *Precam. Res.* **320**, 1–12.
- Cheng C, Busigny V, Ader M, Thomazo C, Chaduteau C & Philippot P (2019) Nitrogen isotope evidence for stepwise oxygenation of the ocean during the Great Oxidation Event. *Geochim. Cosmochim. Acta* **261**, 224–247.
- Colose CM, Del Genio AD & Way MJ (2019) Enhanced habitability on high obliquity bodies near the outer edge of the habitable zone of Sun-like stars. *Astrophys. J.* **884**, 138, 1–13.
- Cornet Y, François C, Compère P, Callec Y, Roberty S, Plumier JC & Javaux EJ (2019) New insights on the paleobiology, biostratigraphy and paleogeography of the pre-Sturtian microfossil index taxon *Cerebrospiraera*. *Precam. Res.* **332**, 105410.

- Crockford PW, Kunzmann M, Bekker A, Hayles J, Bao HM, Halverson GP, Peng YB, Bui TH, Cox GM, Gibson TM, Wörndle S, Rainbird R, Lepland A, Swanson-Hysell NL, Master S, Sreenivas B, Kuznetsov A, Krupenik V & Wing BA (2019) Claypool revisited: extending the isotopic record of sedimentary sulfate. *Chem. Geol.* **513**, 200–225.
- Crockford PW, Wing BA, Paytan A, Hodgskiss MSW, Mayfield KK, Hayles JA, Middleton JE, Ahm A-SC, Johnston DT, Caxito F, Uhlein G, Halverson GP, Eickmann B, Torres M & Horner TJ (2019) Barium-isotope constraints on the origin of post-Marinoan barites. *Earth Planet. Sci. Lett.* **519**, 234–244.
- Cui YX, Lang XG, Li FB, Huang KJ, Ma HR, Li CQ, Pei HX, Li C, Zhou CM & Shen B (2019) Germanium/silica ratio and rare earth element composition of silica-filling in sheet cracks of the Doushantuo cap carbonates, South China: Constraining hydrothermal activity during the Marinoan snowball Earth glaciation. *Precam. Res.* **332**, 105407.
- El-Rahman YA, Gutzmer J, Li XH, Seifert T, Li CF, Ling XX & Li J (2019) Not all Neoproterozoic iron formations are glaciogenic: Sturtian-aged non-Rapitan exhalative iron formations from the Arabian-Nubian Shield. *Mineralium Deposita* doi.org/10.1007/s00126-019-00898-0
- Gao BF, Wu CZ, Yang T, Santosh M, Dong LH, Zhao TY, Ye H, Lei RX & Li W (2019) The Neoproterozoic “Blood Falls” in Tarim craton and their possible connection with snowball Earth. *J. Geophys. Res.* **124**(1), 229–244.
- Galili N, Shemesh A, Yam R, Braikovsky I, Sela-Adler M, Schuster EM, Collom C, Bekker A, Planavsky N, Macdonald FA, Pr at A, Rudmin M, Trela W, Stuesson U, Heikoop JM, Aurell M, Ramajo J & Halevy I (2019) The geologic history of seawater oxygen isotopes from marine iron oxides. *Science* **365**, 469–473.
- Graham RJ, Shaw TA & Abbot DS (2019) The Snowball stratosphere. *J. Geophys. Res.: Atmos.* **124**(22), 11819–11836.
- Gupta G, Marshall J & Ferreira D (2019) Triggering global climate transitions through volcanic eruptions. *J. Clim.* **32**(12), 3727–3742.
- Harada M, Nagano A, Yagi S, Furukawa R, Yokobori SI & Yamagishi A (2019) Planktonic adaptive evolution to the sea surface temperature in the Neoproterozoic inferred from ancestral NDK of marine cyanobacteria. *Earth Planet. Sci. Lett.* **522**, 98–106.
- Hoffman PF & Lamothe KG (2019) Seawater-buffered diagenesis, destruction of carbon isotope excursions, and the composition of DIC in Neoproterozoic oceans. *Proc. Natl Acad. Sci. USA* **116**(38), 18,874–18,879.
- Irie Y, Nakada M, Okuno J & Bao HM (2019) Nonmonotonic postdeglacial relative sea level changes at the aftermath of Marinoan (635 Ma) snowball Earth meltdown. *J. Geophys. Res.: Solid Earth* **124**(8), 9373–9394.
- Joshi MM, Mills BJW & Johnson M (2019) A capacitor–discharge mechanism to explain the timing of orogeny-related global glaciations. *Geophys. Res. Lett.* **46**, 8347.
- Kasting JF 2019. Goldilocks planet? How silicate weathering maintains Earth “just right”. *Elements* **15**, 236–240.
- Kasz s B, Haszpra T & Herein M (2019) The snowball Earth transition in a climate model with drifting parameters: splitting of the snapshot attractor. *Chaos* **29**, 113102.
- Keller CB, Husson JM, Mitchell RN, Bottke WF, Gernon TM, Boehnke P, Bell EA, Swanson-Hysell NL & Peters SE (2019) Neoproterozoic glacial origin of the Great Unconformity. *Proc. Natl Acad. Sci. USA* **117**(4), 1136–1145.
- Kennedy K, Eyles N & Broughton D (2019) Basinal setting and origin of thick (1.8 km) mass flow dominated Grand Conglom rat diamictites, Kamoia, Democratic Republic of Congo: resolving climate and tectonic controls during Neoproterozoic glaciations. *Sedimentology* **66**(2), 556–589.
- Klaebe R & Kennedy MJ (2019) The palaeoenvironmental context of the Trezona anomaly in South Australia: do carbon isotopes record a global or regional signal? *Depositional Rec.* **5**, 131–146.

- Klaebe R & Kennedy MJ (2019) The palaeoenvironmental context of the Trezona anomaly in South Australia: do carbon isotope values record a global or regional signal? *Depositional Rec.* **5**(1), 131–146.
- Koeberl C & Ivanov BA (2019) Asteroid impact effects on Snowball Earth. *Meteoritics Planet. Sci.* **54**, 2273–2285.
- Lahr DJG, Kosakyan A, Lara E, Mitchell EAD, Morais L, Porfirio-Sousa AL, Ribeiro G, Tice AK, Pánek T & Kang S (2019) Phylogenomics and morphological reconstruction of *Arcellinida* testate amoebae highlight diversity of microbial eukaryotes in the Neoproterozoic. *Curr. Biol.* **29**, 991–1001.
- Lamothe KG, Hoffman PF, Greenman JW & Halverson GP (2019) Stratigraphy and isotope geochemistry of the pre-Sturtian Ugab Subgroup, Otavi/Swakop Group, northwestern Namibia. *Precam. Res.* **332**, 105387, 1–11.
- Lechte MA, Wallace MW & Hoffmann K-H (2019) Glacio-marine iron formation deposition in a c. 700 Ma glaciated margin: insights from the Chuos Formation, Namibia, in Le Heron DP, Hogan KA, Phillips ER, Huuse M, Busfield ME & Graham AGC (eds) *Glaciated Margins: the Sedimentary and Geophysical Archive*. Geological Society of London, Sp. Publ. 475, 9–34.
- Lechte MA, Wallace MW, Hood AvS, Li WQ, Jiang GQ, Halverson GP, Asael D, McColl SL & Planavsky NJ (2019) Subglacial meltwater supported aerobic marine habitats during Snowball Earth. *Proc. Natl Acad. Sci. USA* **116**, 25,478–25,483.
- Le Heron DP, Busfield ME, Ali DO, Vandyk T & Tofaif S (2019) A tale of two rift shoulders, and two ice masses: the Cryogenian glaciated margin of Death Valley, California, in Le Heron DP, Hogan KA, Phillips ER, Huuse M, Busfield ME & Graham AGC (eds) *Glaciated Margins: the Sedimentary and Geophysical Archive*. Geological Society of London, Sp. Publ. 475, 35–52.
- Le Heron DP & Vandyke TM (2019) A slippery slope for Cryogenian diamictites? *Depositional Rec.* **5**, 306–321.
- Le Heron DP, Vandyke TM, Kwang HW, Liu YQ, Chen XS, Wang YC, Yang ZR, Scharfenberg L, Davies B & Shields G (2019) Bird's-eye view of an Ediacaran subglacial landscape. *Geology* **47**, 705–709.
- Li S, Junkin WD, Gaschnig RM, Ash RD, Piccoli PM, Candela PA & Rudnick RL (2019) Molybdenum contents of sulfides in ancient glacial diamictites: implications of molybdenum delivery to the oceans prior to the Great Oxidation Event. *Geochim. Cosmochim. Acta* **278**(15), 30–50.
- Li SH, Li XY, Wang GZ, Liu YM, Wang ZC, Wang TS, Cao XZ, Guo XY, Somerville I, Li Y, Zhou J, Dai LM, Jiang SH, Zhao H, Wang Y, Wang G & Yu S (2019) Global Meso-Neoproterozoic plate reconstruction and formation mechanisms for Precambrian basins: Constraints from three cratons in China. *Earth-Sci. Rev.* **198**, 102946.
- Liu YG (2019) Large true polar wander in a sea level model with application to the Neoproterozoic snowball Earth events. *Earth Planet. Sci. Lett.* **520**, 40–49.
- Liu H, Zartman RE, Ireland TR & Sun WD (2019) Global atmospheric oxygen variations recorded by Th/U systematics of igneous rocks. *Proc. Natl Acad. Sci. USA* **116**(38), 18,854–18,859.
- Long J, Zhang SX & Luo KL (2019) Cryogenian magmatic activity and early life evolution. *Sci. Rep.* **9**, 6586.
- Love GD, Zumberge JA, Cárdenas P, Sperling EA, Rohrsen M, Grosjean E, Grotzinger JP & Summons RE (2019) Sources of C₃₀ steroid biomarkers in Neoproterozoic-Cambrian rocks and oils. *Nat. Ecol. Evol. Matters Arising from B.J. Nettersheim et al.*, <https://10.1038/s41559-019-0806-5>
- Lucarini V & Bódai T (2019) Transitions across melancholia states in a climate model: reconciling the deterministic and stochastic points of view. *Phys. Rev. Lett.* **122**, 158701.
- Ma ZX, Liu XT, Yu WC, Du YS & Du QD (2019) Redox conditions and manganese metallogenesis in the Nanhua Basin: Insight from the basal Datangpo Formation, South China: *Palaeogeog. Palaeoclimatol. Palaeoecol.* **529**, 39–52.

- Merdith AS, Williams SE, Brune A, Collins AS & Müller RD (2019) Rift and plate boundary evolution across two supercontinent cycles. *Glob. Planet. Change* **173**, 1–14.
- Mills BJW, Krause AJ, Scotese CR, Hill DJ, Shields GA & Lenton TM (2019) 2019. Modelling the long-term carbon cycle, atmospheric CO₂, and Earth surface temperature from late Neoproterozoic to present day. *Gondwana Res.* **67**, 172–186.
- Mitchell RN, Gernon TM, Nordsvan A, Cox GM, Li ZX & Hoffman PF (2019) Hit or miss: glacial incisions of snowball Earth. *Terra Nova* **31**, 381–389.
- Morais L, Lahr DJG, Rudnitzki ID, Freitas BT, Romero GR, Porter SM, Knoll AH & Fairchild TR (2019) Insights into vase-shaped microfossil diversity and Neoproterozoic biostratigraphy in light of recent Brazilian discoveries. *J. Paleontol.* **93**, 593–611.
- Naranjo-Ortiz MA & Gabaldón T (2019) Fungal evolution: major ecological adaptations and evolutionary transitions. *Biological Reviews (Cambridge Philosophical Society)* **94**, 1443–1476.
- Nelson MP, Lücking R, Boyce CK, Lumbsch HT & Ree RH (2019) No support for the emergence of lichens prior to the evolution of vascular plants. *Geobiology* **18**(1), 3–13.
- Nettersheim BJ, Brocks JJ, Schwelm A, Hope JM, Not F, Lomas M, Schmidt C, Schiebel R, Nowack ECM, DeDeckker P, Pawlowski J, Bowser SS, Bobrovskiy I, Zonneveld K, Kucera M, Stuhr M & Hallmann C (2019) Putative sponge biomarkers in unicellular Rhizaria question an early rise of animals. *Nat. Ecol. Evol.* **3**, 577–581.
- Nordsvan AR, Barham M, Cox G, Kirscher U & Mitchell RN (2019) Major shoreline retreat and sediment starvation following Snowball Earth. *Terra Nova* **31**, 495–502.
- Paradise A, Menou K, Valencia D & Lee C (2019) Habitable snowballs: temperate land conditions, liquid water, and implications for CO₂ weathering. *J. Geophys. Res.* **124**(8), 2087–2100.
- Peng X, Zhu XK, Shi FQ, Yan B & Shields GA (2019) A deep marine organic carbon reservoir in the non-glacial Cryogenian ocean (Nanhua Basin, South China) revealed by organic carbon isotopes. *Precam. Res.* **321**, 212–220.
- Penman DE & Rooney AD (2019) Coupled carbon and silica cycle perturbations during the Marinoan snowball Earth deglaciation. *Geology* **47**(4), 317–320.
- Porter SM & Riedman LA (2019) Evolution: ancient fossilized amoebae find their home in the tree. *Curr. Biol.* **29**, 200–223.
- Qing OY, Zhou CM, Xiao SH, Chen Z & Shao YF (2019) Acanthomorphic acritarchs from the Ediacaran Doushantuo Formation at Zhangcunping in South China, with implications for the evolution of early Ediacaran eukaryotes. *Precam. Res.* **320**, 171–192.
- Plummer P (2019) Seismic images grounding zone wedge in Neoproterozoic glacials, Amadeus Basin, central Australia. *Austral. J. Earth Sci.* **66**, 47–55.
- Reinhard CT & Fischer WW (2019) Mechanistic links between the sedimentary redox cycle and marine acid-base chemistry. *Geochem. Geophys. Geosyst.* **20**, <https://doi.org/10.1029/2019GC008621>
- Shields AL (2019) The climates of other worlds: a review of the emerging field of exoplanet climatology. *Astrophys. J. Suppl. Ser.* **243**:30, 1–19.
- Shields GA, Mills BJW, Zhu MY, Raub TD, Daines SJ & Lenton TM (2019) Unique Neoproterozoic carbon isotope excursions sustained by coupled evaporite dissolution and pyrite burial. *Nat. Geosci.* **12**, 823–827.
- Skelton A, Löwhagen L, Fairchild IJ, Boyce A, Mörth C-M, Siegmund H, Webster D & Spencer AM (2019) Stable isotopes of oxygen and hydrogen in meteoric water during the Cryogenian Period. *Precam. Res.* **320**, 253–260.
- Sobolev SV & Brown M (2019) Surface erosion events controlled the evolution of plate tectonics on Earth. *Nature* **570**, 52–57.
- Spalding C & Fischer WW (2019) A shorter Archean day-length biases interpretations of the early Earth's climate. *Earth Planet. Sci. Lett.* **514**, 28–36.

- Tofaif S, Vandyk TM, Le Heron DP & Melvin J (2019) Glaciers, flows, and fans: origins of a Neoproterozoic diamictite in the Saratoga Hills, Death Valley, California. *Sed. Geol.* **385**, 79–95.
- Vandyke TM, Wu G, Davies BJ, Xiao Y, Li M, Shields GA & Le Heron DP (2019) Temperate glaciation on a Snowball Earth: glaciological and palaeogeographic insights from the Cryogenian Yuermenak Formation of NW China. *Precam. Res.* **331**, 105362.
- van Maldegem LM, Sansjofre P, Weijers JWH, Wolkenstein K, Strother PK, Wörmer L, Hefter J, Nettersheim BJ, Hoshino Y, Schouten S, Sinnige Damste JS, Nath N, Griesinger C, Kuznetsov NB, Elie M, Elvert M, Tegelaar E, Gleixner G & Hallmann C (2019) Bisnorgammacerane traces predatory pressure and the persistent rise of algal ecosystems after Snowball Earth. *Nat. Commun.* **10**:476, doi.org/10.1038/s41467-019-08306-x
- Wallace MW, Hood AvS, Fayle J, Hordern ES & O'Hare TF (2019) Neoproterozoic marine dolomite hardgrounds and their relationship to cap dolomites. *Precam. Res.* **328**, 269–286.
- Walsh A, Ball T & Schultz DM (2019) Extreme sensitivity in Snowball Earth formation to mountains on PaleoProterozoic supercontinents. *Sci. Rep.* **9**, 2349.
- Wang D, Zhu XK, Zhao N, Yan B, Li XH, Shi FQ & Zhang FF (2019) Timing of the termination of Sturtian glaciation: SIMS U-Pb zircon dating from South China. *J. Asian Earth Sci.* **177**, 287–294.
- Ward JF, Verdel C, Campbell MJ, Leonard N & Nguyen AD (2019) Rare earth element geochemistry of Australian Neoproterozoic carbonate: constraints on the Neoproterozoic oxygenation events. *Precam. Res.* **335**, 105471.
- Weber B, Schmitt AK, de León AC & González-Guzmán R (2019) Coeval Early Ediacaran breakup of Amazonia, Baltica, and Laurentia: evidence from micro-baddeleyite dating of dykes from the Novillo Canyon, Mexico. *Geophys. Res. Lett.* **46**(4), 2003–211.
- Wei GY, Hood AvS, Chen X, Li D, Wei W, Wen B, Gong Z, Yang T, Zhang ZF & Ling HF (2019) Ca and Sr isotope constraints on the formation of the Marinoan cap dolostones. *Earth Planet. Sci. Lett.* **511**, 202–212.
- Williams GE & Gostin VA (2019) Late Cryogenian glaciation in South Australia: Fluctuating ice margin and no extreme or rapid post-glacial sea-level rise. *Geosci. Front.* **10**, 1397–1408.
- Williamson CJ, Cameron KA, Cook JM, Zarsky JD, Stibal M & Edwards A (2019) Glacier algae: a dark past and a darker future. *Front. Microbiol.* **10**, 519, 1–8.
- Wu HP, Jiang SY, Palmer MR, Wei HZ & Yang JH (2019) Positive cerium anomaly in the Doushantuo cap carbonates from the Yangtze platform, South China: implications for intermediate water column manganese conditions in the aftermath of the Marinoan glaciation. *Precam. Res.* **320**, 93–110.
- Xu LG, Frank AB, Lehmann B, Zhu JM, Mao JW, Ju YZ & Frei R (2019) Subtle Cr isotope signals track the variably anoxic Cryogenian interglacial period with voluminous manganese accumulation and decrease in biodiversity. *Sci. Rep.* **9**, 15056.
- Yang J, Lyons TW, Zeng ZX, Odigie KO, Bates S & Hu LS (2019) Geochemical constraints on the origin of Neoproterozoic cap carbonate in the Helan Mountains, North China: implications for mid-late Ediacaran glaciation? *Precam. Res.* **331**, 105361.
- Ye Q, Tong JN, Tian L, Hu J & Xiao SH (2019) Detrital graphite particles in the Cryogenian Nantuo Formation of South China: Implications for sedimentary provenance and tectonic history. *Precam. Res.* **323**, 6–15.
- Young GM (2019) Aspects of the Archean–Proterozoic transition: How the great Huronian Glacial Event was initiated by rift-related uplift and terminated at the rift–drift transition during breakup of Lauroscandia. *Precam. Res.* **190**, 171–189.
- Yu WC, Polgári M, Gyollai I, Fintor K, Szabó M, Kovács I, Fekete J, Du YS & Zhou Q (2019) Microbial metallogenesis of Cryogenian manganese ore deposits in South China. *Precam. Res.* **322**, 122–135.
- Zhou CM, Huyskens MH, Lang XG, Xiao SH & Yin QZ (2019) Calibrating the terminations of Cryogenian global glaciations. *Geology* **47**, 251–254.

- Zhou CM, Yuan XL, Xiao SH, Chen Z & Hua H (2019) Ediacaran integrative stratigraphy and timescale of China. *Sci. China Earth Sci.* **62**, 7–24.
- Zhu XK, Sun J & Li ZH (2019) Iron isotopic variation of the Cryogenian banded iron formations: a new model. *Precam. Res.* **331**, 105359.
- Zhu GY, Li TT, Zhao K, Zhang ZY, Chen WY, Yan HH, Zhang K & Ci LX (2019) Excellent source rocks discovered in the Cryogenian interglacial deposits in South China: geology, geochemistry, and hydrocarbon potential. *Precam. Res.* **333**, 105455.
- 2018: 94 12 6 79 6 24 12**
- Ali DO, Spencer AM, Fairchild IJ, Chew KJ, Anderton R, Levell BK, Hambrey MJ, Dove D & Le Heron DP (2018) Indicators of relative completeness of the glacial record of the Port Askaig Formation, Garvellach Islands, Scotland. *Precam. Res.* **319**, 65–78.
- Bao XJ, Zhang SH, Jiang GQ, Wu HC, Li HY, Wang XQ, An ZZ & Yang TS (2018) Cyclostratigraphic constraints on the duration of the Datangpo Formation and the onset age of the Nantuo (Marinoan) glaciation in South China. *Earth Planet. Sci. Lett.* **483**, 52–63.
- Bechstädt T, Jäger H, Rittersbacher A, Schweizfurth B, Spence G, Werner G & Boni M (2018) The Cryogenian Ghaub Formation of Namibia – new insights into Neoproterozoic glaciations. *Earth-Sci. Rev.* **177**, 678–714.
- Bindeman IN & Lee JE (2018) The possibility of obtaining ultra-low $\delta^{18}\text{O}$ signature of precipitation near equatorial latitudes during the Snowball Earth glaciation episodes. *Precam. Res.* **319**, 211–219.
- Blattmann TM, Letch D & Eglinton TI (2018) On the geological and scientific legacy of petrogenic organic carbon. *Am. J. Sci.* **318**, 861–881.
- Botting JP & Nettersheim BJ (2018) Searching for sponge origins. *Nat. Ecol. Evol.* **2**, 1685–1686.
- Brocks JJ (2018) The transition from a cyanobacterial to algal world and the emergence of animals. *Emerg. Top. Life Sci.* **2**(2), 181–190.
- Broecker W (2018) CO₂: Earth's Climate Driver, Chapter 3, Snowball Earth. *Geochem. Persp. Lett.* **7**(2), 130–141.
- Busfield ME & Le Heron DP (2018) Snowball Earth under the microscope. *J. Sed. Res.* **88**, 659–677.
- Busigny V, Planavsky NJ, Goldbaum E, Lechte MA, Feng LJ & Lyons TW (2018) Origin of the Neoproterozoic Fulu iron formation, South China: insights from iron isotopes and rare earth element patterns. *Geochim. Cosmochim. Acta* **242**, 123–142.
- Caquineau T, Paquette J-L & Philippot P (2018) U–Pb detrital zircon geochronology of the Turee Creek Group, Hamersley Basin, Western Australia: timing and correlation of the Paleoproterozoic glaciations. *Precam. Res.* **307**, 34–50.
- Cheng M, Li C, Chen X, Zhou L, Algeo T, Ling HF, Feng LJ & Jin CS (2018) A delayed Neoproterozoic oceanic oxygenation: evidence from Mo isotopes of the Cryogenian Datangpo Formation. *Precam. Res.* **319**, 187–197.
- Cohen PA & Riedman LA (2018) It's a protist-eat-protist world: recalcitrance, predation, and evolution in the Tonian – Cryogenian ocean. *Emerg. Top. Life Sci.* **2**(2), 173–180.
- Cox GM, Halverson GP, Denyszyn S, Foden J & Macdonald FA (2018) Cryogenian magmatism along the north-western margin of Laurentia: plume or rift? *Precam. Res.* **319**, 144–157.
- Cox GM, Isakson V, Hoffman PF, Gernon TM, Schmitz MD, Shahin S, Collins AS, Preiss W, Blades ML, Mitchell RN & Nordsvan A (2018) U–Pb (CA-ID-TIMS) age supports globally synchronous Sturtian deglaciation. *Precam. Res.* **315**, 257–263.
- Crockford PW, Hodgskiss MSW, Uhlein GJ, Caxito F, Hayles JA & Halverson GP (2018) Linking paleocontinents through triple oxygen isotope anomalies. *Geology* **46**, 179–182.
- Cui H, Kitajima K, Spicuzza MJ, Fournelle JH, Ishida A, Brown PE & Valley JW (2018) Searching for the Great Oxidation Event in North America: a reappraisal of the Huronian Supergroup by SIMS sulfur four-isotope analysis. *Astrobiology* **18**, 519–538.

- DeLucia MS, Guenther WR, Marshak S, Thompson SN & Ault AK (2018) Thermochronology links denudation of the Great Unconformity surface to the supercontinent cycle and snowball Earth. *Geology* **46**, 167–170.
- Domack EW & Powell R (2018) Modern glaciomarine environments and sediments, in Menzies J & van der Meer JJM (eds) *Past Glacial Environments, 2nd ed.* Elsevier, Amsterdam, pp. 181–272.
- Eyster A, Ferri F, Schmitz MD & Macdonald FA (2018) One diamictite and two rifts: stratigraphy and geochronology of the Gataga Mountain of northern British Columbia. *Am. J. Sci.* **318**, 167–207.
- Fairchild IJ, Spencer AM, Ali DO, Anderson RP, Anderton R, Boomer I, Dove D, Evans JD, Hambrey MJ, Howe J, Sawaki Y, Shields GA, Skelton A, Tucker ME, Wang ZR & Zhou Y (2018) Tonian–Cryogenian boundary sections of Argyll, Scotland. *Precam. Res.* **319**, 37–64.
- Foley BJ & Smye AJ (2018) Carbon cycling and habitability of Earth-sized stagnant lid planets. *Astrobiology* **18**, <http://doi.org.ezp-prod1.hul.harvard.edu/10.1089/ast.2017.1695>
- Frimmel HE (2018) The Gariep Belt, in Siegesmund S, Basei M, Oyhantçabal P & Oriolo S (eds), *Geology of Southwest Gondwana*. Springer, Cham, pp. 353–386.
- Galli KG (2018) *Field guide to sedimentology of the Ediacaran Roxbury Conglomerate, Boston Bay Group of eastern Massachusetts*. New Hampshire Geological Society, 26 p.
- Gladkochub DP, Donskaya TV, Stanevich AM, Pisarevsky SA, Zhang S, Motova ZL, Mazukabsov AM & Li H (2018) U–Pb detrital zircon geochronology and provenance of Neoproterozoic sedimentary rocks in southern Siberia: new insights into breakup of Rodinia and opening of Paleo-Asian Ocean. *Gondwana Res.* **65**, 1–16.
- Gold DA (2018) The slow rise of complex life as revealed through biomarker genetics. *Emerg. Top. Life Sci.* **2**(20), 191–199.
- Gómez-Peral LE, Kaufman AJ, Arrouy MJ, Richiano S, Sial AN, Poiré DG & Ferreira VP (2018) Preglacial palaeoenvironmental evolution of the Ediacaran Loma Negra Formation, far southwestern Gondwana, Argentina. *Precam. Res.* **325**, 120–137.
- Halverson GP, Kunzmann M, Strauss JV & Maloof AC (2018) The Tonian–Cryogenian transition in Northeastern Svalbard. *Precam. Res.* **319**, 79–95.
- Halverson GP, Porter SM & Gibson TM (2018) Dating the late Proterozoic stratigraphic record. *Emerging Topics in Life Sciences*, <https://doi.org/10.1042/ETLS20170167>.
- Hawes I, Jungblut AD, Matys ED & Summons RE (2018) The “dirty ice” of the McMurdo Ice Shelf: analogues for biological oases during the Cryogenian. *Geobiology* **16**, 369–377.
- Hodel F, Macouin M, Trindade RIF, Triantafyllou A, Ganne J, Chavagnac V, Berger J, Rospabé M, Destrigneville C, Carlut J, Ennih N & Agrinier P (2018) Fossil black smoker yields oxygen isotopic composition of Neoproterozoic seawater. *Nat. Commun* **9**(1453), 1–7.
- Hoffman PF & Halverson GP (2018) Discussion of “Depositional ages and provenance of the Neoproterozoic Damara Supergroup (northwest Namibia): implications for the Angola – Congo and Kalahari cratons connection” by Débora B. Nascimento, Renata S. Schmitt, André Ribeiro, Rudolph A. J. Trouw, Cees W. Passcier, and Miguel A. S. Basei. *Gondwana Res.* **58**, 235–238.
- Hoffman PF, Lamothe KG & Greenman JW (2018) Report: Stratigraphic investigations of the Neoproterozoic Otavi/Swakop Group in the southern Kunene Region. *Commun Geol. Surv. Namibia* **20**, 100–113.
- Hood AvS & Wallace MW (2018) Neoproterozoic marine carbonates and their paleoceanographic significance. *Glob. Planet. Change* **160**, 28–45.
- Howe TS, Corcoran PL, Longstaffe FJ, Webb EA & Pratt RG (2018) Response to the discussion on “Climatic cycles recorded in glacially influenced rhythmites of the Gowganda Formation, Huronian Supergroup,” *Precam. Res.* **286**, 269–280. *Precam. Res.* **316**, 327.
- Hu CL, Zhao FC, Ji QM & Zhu MY (2018) The basal Ediacaran cap carbonate in the Ningzhen Mountain area, South China (Chinese with English abstract). *J. Stratigr.* **42**(4), 381–392.

- Isakson VH, Schmitz MD, Dehler CM, Macdonald FA & Yonkee WA (2018) Epiclastic versus pyroclastic? Using tandem *in situ* and isotope dilution U–Pb zircon geochronology to improve age models for the Cryogenian Pocatello Formation, southeastern Idaho. *Geosphere* **18**(2), 825–849.
- Isson TT & Planavsky NJ (2018) Reverse weathering as a long-term stabilizer of marine pH and planetary climate. *Nature* **560**, 471–475.
- Isson TT, Love GD, Dupont CL, Reinhard CT, Zumberge AJ, Asael D, Guegen B, McCrow J, Gill BC, Owens J, Rainbird RH, Rooney AD, Zhao MY, Stueken EE, Konhauser KO, John SG, Lyons TW & Planavsky NJ (2018) Tracking the rise of eukaryotes to ecological dominance with zinc isotopes. *Geobiology* **16**, 341–352.
- Jin CS, Li C, Algeo TJ, O’Connell B, Cheng M, Shi W, Shen J & Planavsky NJ (2018) Highly heterogeneous ‘poikiloredox’ conditions in the early Ediacaran Yangtze Sea. *Precam. Res.* **311**, 157–166.
- Kennedy K, Eyles N & Broughton D (2018) Basinal setting and origin of thick (1.8 km) mass-flow dominated Grand Conglomérat diamictites, Kamao, Democratic Republic of Congo: resolving climate and tectonic controls during Neoproterozoic glaciations. *Sedimentology* **66**(2), 556–589, doi: 10.1111/sed.12494.
- Kilic C, Lunkeit F, Raible CC & Stocker TF (2018) Stable equatorial ice belts at high obliquity in a coupled atmosphere–ocean model. *Astrophys. J.* **864**, 106, 7 p.
- Klaebe RM & Kennedy MJ (2018) The palaeoenvironmental context of the Trezona anomaly in South Australia: do carbon isotope values record a global or regional signal? *Depositional Rec.* **5**, 131–146.
- Klaebe RM, Smith MP, Fairchild IJ, Fleming EJ & Kennedy MJ (2018) Facies-dependent $\delta^{13}\text{C}$ variation and diagenetic overprinting at the onset of the Sturtian glaciation in North-East Greenland. *Precam. Res.* **319**, 96–113.
- Krissansen-Totton J, Arney GN & Catling DC (2018) Constraining the climate and ocean pH of the early Earth with a geological carbon cycle model. *Proc. Natl Acad. Sci. USA* **115**, 4205–4110.
- Lang XG, Chen JT, Cui H, Man L, Huang KJ, Fu Y, Zhou CM, Shen B (2018) Cyclic cold climate during the Nantuo glaciation: evidence from the Cryogenian Nantuo Formation in the Yangtze Block, South China. *Precam. Res.* **310**, 243–255.
- Lang XG, Shen B, Peng YB, Xiao SH, Zhou CM, Bao HM, Kaufman AJ, Huang KJ, Crockford PW, Liu YG, Tang WB & Ma HR (2018) Transient marine euxinia at the end of the terminal Cryogenian glaciation. *Nat. Commun* **9**, 3019.
- Lechte MA, Wallace MW & Hood AvS & Planavsky NJ (2018) Cryogenian iron formations in the glacial Kingston Peak Formation, California. *Precam. Res.* **310**, 443–462.
- Lechte MA, Wallace MW & Hoffmann K-H (2018) Glacio-marine iron formation in a c. 700 Ma glaciated margin: insights from the Chuos Formation, Namibia, in Le Heron DP, Hogan KA, Phillips ER, Huuse M, Busfield ME & Graham AGC (eds) *Glaciated Margins: the Sedimentary and Geophysical Archive*. Geological Society, London, Sp. Publ. 475, pp. 9–34.
- Le Heron DP, Busfield ME, Ali DO, Tofaif S & Vandyk TM (2018) The Cryogenian record in the southern Kingston Range, California: the thickest Death Valley succession in the hunt for a GSPP. *Precam. Res.* **319**, 158–172.
- Le Heron DP, Busfield ME, Ali DO, Vandyke T & Tofaif S (2018) A tale of two rift shoulders, and two ice masses: the Cryogenian glaciated margin of Death Valley, California, in Le Heron DP, Hogan KA, Phillips ER, Huuse M, Busfield ME & Graham AGC (eds) *Glaciated Margins: The Sedimentary and Geophysical Archive*. Geological Society, London, Sp. Publ. 475, pp. 35–52.
- Le Heron DP, Vandyk TM, Wu GH & Li M (2018) New perspectives on the Luoquan (Ediacaran–Cambrian) of North China. *Depositional Rec.* **4**(2), 274–292.
- Letsch D, Large SJE, Buechi MW, Winkler W & von Quadt A (2018) Ediacaran glaciations of the west African Craton – Evidence from Morocco. *Precam. Res.* **310**, 17–38.

- Li PB, Tang DJ, Shi XY, Jiang GQ, Chao XK, Wang XK, Zhou XQ, Wang XQ & Chen X (2018) Sunspot cycles recorded in siliciclastic biolaminites at the dawn of the Neoproterozoic Sturtian glaciation in South China. *Precam. Res.* **315**, 75–91.
- Liu C, Wang ZR & Macdonald FA (2018) Sr and Mg isotope geochemistry of the basal Ediacaran cap limestone sequence in Mongolia: implications for carbonate diagenesis, mixing of glacial meltwaters, and seawater chemistry in the aftermath of Snowball Earth. *Chem. Geol.* **491**, 1–13.
- Liu YG, Peltier WR, Yang J & Hu YY (2018) Influence of surface topography on the critical carbon dioxide level required for the formation of a modern snowball Earth. *J. Clim.* **31**, 8463–8479.
- Lutsko NJ & Popp M (2018) The influence of meridional gradients in insolation and longwave optical depth on the climate of a gray radiation GCM. *J. Clim.* **31**(19), 7803–7822.
- Lutzoni F, Nowak MD, Alfaro ME, Reeb V, Miadlikowska J, Krug M, Arnold AE, Lewis LA, Swofford DL, Hibbett D, Hilu K, James TY, Quandt D & Magallón S (2018) Contemporaneous radiations of fungi and plants linked to symbiosis. *Nat. Commun.* **9**, 5451, 1–11.
- Lv YW, Liu SA, Wu HC, Hohl SV, Chen SM & Li SG (2018) Zn–Sr isotope records of the Ediacaran Doushantuo Formation in South China: diagenesis assessment and implications. *Geochim. Cosmochim. Acta* **239**, 330–345.
- Macdonald FA, Schmitz MD, Strauss JV, Halverson GP, Gibson TM, Eyster A, Cox G, Mamroi P & Crowley JL (2018) Cryogenian of Yukon. *Precam. Res.* **319**, 114–143.
- MacLennan S, Park Y, Swanson-Hysell N, Maloof A, Schoene B, Gebreslassie M, Antilla E, Tesema T, Alene M & Haileab B (2018) The arc of the Snowball: U–Pb dates constrain the Islay anomaly and the initiation of the Sturtian glaciation. *Geology* **46**, 539–542.
- Myrow PM, Lamb, MP & Ewing RC (2018) Rapid sea level rise in the aftermath of a Neoproterozoic snowball Earth. *Science* **360**, 649–651.
- Nascimento DB, Ribeiro A, Trouw RAJ, Schmitt RS & Passchier CW (2018) Reply to discussion by Hoffman and Halverson (in press) on the article: “Depositional ages and provenance of the Neoproterozoic Damara Supergroup (northwest Namibia): implications for the Angola – Congo and Kalahari cratons connection” by Nascimento et al. (2017), *Gondwana Res.* **52**, 153–171. *Gondwana Research* **58**, 239–240.
- Nowajewski P, Rojas M, Rojo P & Kimeswenger S (2018) Atmospheric dynamics and habitability range in Earth-like aquaplanets obliquity simulations. *Icarus* **305**, 84–90.
- Okubo J, Muscente AD, Luvizotto GL, Uhlein GJ & Warren LV (2018) Phosphogenesis, aragonite fan formation and seafloor environments following the Marinoan glaciation. *Precam. Res.* **311**, 24–36.
- Paradise A, Menou K, Valencia D & Lee C (2018) Habitable Snowballs: temperate land conditions, liquid water, and implications for CO₂ weathering. *J. Geophys. Res.: Planets* **124**(8), 2087–2100.
- Parnell J, Perez M, Armstrong J, Bullock L, Feldmann J & Boyce AJ (2018) Geochemistry and metallogeny of Neoproterozoic pyrite in oxic and anoxic sediments. *Geochem. Persp. Lett.* **7**, 12–16.
- Paula Santos GM, Caetano-Filho S, Babinski M & Enzweiler J (2018) Rare earth elements of carbonate rocks from the Bambuí Group, southern São Francisco Basin, Brazil, and their significance as paleoenvironmental proxies. *Precam. Res.* **305**, 327–340.
- Philippot P, Ávila JN, Killingsworth BA, Tessalina S, Baton F, Caquineau T, Muller E, Pecoits E, Cartigny P, Lalonde SV, Ireland TR, Thomazo C, van Kranendonk MJ & Busigny V (2018) Globally asynchronous sulfur isotope signals require re-definition of the Great Oxidation Event. *Nat. Commun.* **9**, 2245.
- Poiré DG, Gómez Peral LE & Arrouy MJ (2018) The glaciations in South America, *in*: Siegesmund, S., Basei, M., Oyhantçabal, P., Oriolo, S. (eds.), *Geology of Southwest Gondwana*. Springer, Cham, pp. 527–541.

- Prave AR, Meng F, Lepland A, Kirsmäe K, Kreitsmann T & Jiang CZ (2018) A refined late Cryogenian – Ediacaran Earth history of South China: phosphorus-rich marbles of the Dabie and Sulu orogens. *Precam. Res.* **305**, 166–176.
- Qi LA, Xu YJ, Cawodd PA & Du YS (2018) Reconstructing Cryogenian to Ediacaran successions and paleogeography of the South China Block. *Precam. Res.* **314**, 452–467.
- Qin C, Zhong SJ & Phillips R (2018) Formation of the Lunar fossil bulges and its implication for the early Earth and Moon. *Geophys. Res. Lett.* **45**, 1-1012.2017GL076278
- Robert B, Greff-Lefftz M & Besse J (2018) True polar wander: a key indicator for plate configuration and mantle convection during the late Neoproterozoic. *Geochem. Geophys. Geosyst.* **19**, 3478–3495.
- Riedman LA & Sadler PM (2018) Global species richness record and biostratigraphic potential of early to middle Neoproterozoic eukaryotic fossils. *Precam. Res.* **319**, 6–18.
- Riedman LA, Porter SM & Calver CR (2018) Vase-shaped microfossil biostratigraphy with new data from Tasmania, Svalbard, Greenland, Sweden and the Yukon. *Precam. Res.* **319**, 19–36.
- Scheller EL, Dickson AJ, Canfield DE, Korte C, Kristiansen KK & Dahl TW (2018) Ocean redox conditions between the Snowballs – geochemical constraints from Arena Formation, East Greenland. *Precam. Res.* **319**, 173–186.
- Shields GA (2018) Carbon and carbon isotope mass balance in the Neoproterozoic Earth system. *Emerg. Top. Life Sci.* **2**(2), 257–265.
- Shields GA, Halverson GP & Porter SM (2018) Descent into the Cryogenian. *Precam. Res.* **319**, 1–5.
- Smith, A.J.B. (2018) The iron formations of southern Africa, in Siegesmund S, Basei M, Oyhantçabal P & Oriolo S (eds) *Geology of Southwest Gondwana*. Springer, Cham, pp. 469–491.
- Smith DG & Bailey RJ 2017. Discussion: Howe, T.S., Corcoran, P., Longstaffe, F.J., Webb, E.A., Pratt, R.G. 2016. Climatic cycles recorded in glacially influenced rhythmites of the Gowganda Formation, Huronian Supergroup. *Precambrian Research*, 286, 269–280. *Precam. Res.* **316**, doi:10.1016/j.precamres.2017.04.022
- Stanton CL, Reinhard CT, Kasting JF, Ostrom NE, Haslun JA, Lyons TW & Glass JB (2018) Nitrous oxide from chemodenitrification: a possible missing link in the Proterozoic greenhouse and the evolution of aerobic respiration. *Geobiology* **16**, 597–609.
- Stern RJ & Miller NR (2018) Did the transition to plate tectonics cause Neoproterozoic Snowball Earth? *Terra Nova* **30**, 87–94.
- Wang XQ, Jiang GQ, Shi XY, Peng YB & Morales DC (2018) Nitrogen isotope constraints on the early Ediacaran ocean redox structure. *Geochim. Cosmochim. Acta* **240**, 220–235.
- Wang YC, Kuang HW, Peng N, Liu YQ, Fan ZX, Xia XX, Chen XS, Zheng HH & Sub YX (2018) Freezing and thawing structures: an evidence of cold climate in the Neoproterozoic Liantuo Formation in Shennongjia of northern margin of Yangtze Craton [in Chinese with English summary]. *J. Palaeogeog.* **20**(4), 579–594.
- Warke MR & Schröder S (2018) Synsedimentary fault control on the deposition of the Deutschland Formation (South Africa): implications for depositional settings, Paleoproterozoic stratigraphic correlations, and the GOE. *Precam. Res.* **310**, 348–364.
- Wei W, Frei R, Gilleaudeau GJ, Li D, Wei GY, Chen X & Ling HF (2018) Oxygenation variations in the atmosphere and shallow seawaters of the Yangtze platform during the Ediacaran Period: clues from Cr-isotopes and Ce-anomalies in carbonates. *Precam. Res.* **313**, 78–90.
- Wei W, Frei R, Kläbe R, Li D, Li D, Wei GY & Ling HF (2018) Redox conditions in the Nanhua Basin during the waning of the Sturtian glaciation: a chromium-isotope perspective. *Precam. Res.* **319**, 198–210.
- Witkowski R & Wernicke BP (2018) Subsidence history of the Ediacaran Johnnie Formation and related strata of southwest Laurentia: implications for the age and duration of the Shuram isotopic excursion and animal evolution. *Geosphere* **14**, GES01678.1.

- Wu L, Guan SW, Zhang SC, Yang HJ, Jin JQ, Zhang XD & Zhang CY (2018) Neoproterozoic stratigraphic framework of the Tarim Craton in NW China: Implications for rift evolution. *J. Asian Earth Sci.* **158**, 240–252.
- Wu GG, Le Heron DP, Yang LY, Luo BX, Xiao Y & Wang B (2018) Cryptic climatic signatures and tectonic controls on Cryogenian diamictites in the NW Tarim craton, China. *J. Geol. Soc., Lond.* **175**, 642–658.
- Young GM (2018) Precambrian glacial deposits: their origin, tectonic setting, and key role in Earth evolution, in Menzies J & van der Meer JJM (eds) *Past Glacial Environments*, 2nd ed. Elsevier, Amsterdam, pp. 17–45.
- Zhao YY, Zhao MY & Li SZ (2018) Evidences of hydrothermal fluids recorded in microfacies of the Ediacaran cap dolostone: geochemical implication in South China. *Precam. Res.* **306**, 1–21.
- Zumberge JA, Love GD, Cárdenas P, Sperling EA, Gunasekera S, Rohrssen M, Grosjean E, Grotzinger JP & Summons RE (2018) Demosponge steroid biomarker 26-methylstigmastane provides evidence for Neoproterozoic animals. *Nat. Ecol. Evol.* **2**, 1709–1714.
- 2017: 71 11 2 58 12 22 9**
- Blättler CL, Kump LR, Fischer WW, Paris G, Kasbohm JJ & Higgins JA (2017) Constraints on ocean carbonate chemistry and $p\text{CO}_2$ in the Archaean and Palaeoproterozoic. *Nat. Geosci.* **10**, 41–45.
- Boyle R (2017) Eukaryotic origins and the Proterozoic Earth system: a link between global scale glaciations and eukaryogenesis? *Earth-Sci. Rev.* **174**, 22–38.
- Braakman R, Follows MJ & Chisolm SW (2017) Metabolic evolution and the self-organization of ecosystems. *Proc. Natl Acad. Sci. USA* **114**, E3091–E3100.
- Brocks JJ, Jarrett AJM, Sirantoine E, Hallmann C, Hoshino Y & Liyanage T (2017) The rise of algae in Cryogenian oceans and the emergence of animals. *Nature* **548**, 578–581.
- Campbell AJ, Massarano B, Waddington ED & Warren SG (2017) Could promontories have restricted sea-glacier penetration into marine embayments during Snowball Earth events? *Cryosphere* **11**, 1141–1148.
- Catling DC & Kasting JF (2017) *Atmospheric Evolution on Inhabited and Lifeless Worlds*. Cambridge University Press, Cambridge, UK, 579 p.
- Cevtkovska M, Hüner NPA & Smith DR (2017) Chilling out: the evolution and diversification of psychrophilic algae with a focus on Chlamydomonales. *Polar Biol.* **40**(6), 1169–1184.
- Charnay B, Le Hir G, Fluteau F, Forget F & Catling DC (2017) A warm or a cold early Earth? New insights from a 3-D climate-carbon model. *Earth Planet. Sci. Lett.* **474**, 97–109.
- Dohrmann M & Wörheide G (2017) Dating early animal evolution using phylogenetic data. *Sci. Rep.* **7**, 3599.
- Ernst RE & Youbi N (2017) How Large Igneous Provinces affect global climate, sometimes cause mass extinctions, and represent natural markers in the geological record. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **478**, 30–52.
- Eyster AE, Ferri F, Schmitz MD & Macdonald FA (2017) One diamictite and two rifts: stratigraphy and geochronology of the Gataga Volcanics of northern British Columbia. *Am. J. Sci.* **318**(2), 167–207.
- Eyster AE, Fu RR, Strauss JV, Weiss BP, Roots CF, Halverson GP, Evans DAD & Macdonald FA (2017) Paleomagnetic evidence for a large rotation of the Yukon block relative to Laurentia: implications for a low-latitude Sturtian glaciation and the breakup of Rodinia. *Geol. Soc. Am. Bull.* **129**, 38–58.
- Feng LJ, Huang J, Lu DB & Zhang QR (2017) Major and trace element geochemistry of the Neoproterozoic syn-glacial Fulu iron formation, South China. *Geol. Mag.* **154**, 1371–1380.
- Fulner G (2017) Formation of most of our coal brought Earth close to global glaciation. *Proc. Natl Acad. Sci. USA* **114**(43), 11333–11337.

- Frei R, Døssing LN, Gaucher C, Boggiani PC, Frei KM, Bech Ártung T, Crowe SA & Freitas BT (2017) Extensive oxidative weathering in the aftermath of a late Neoproterozoic glaciation – Evidence from trace element and chromium isotope records in the Urucum district (Jacadigo Group) and Puga iron formations (Mato Grosso do Sul, Brazil). *Gondwana Res.* **49**, 1–20.
- Gaia VCS, Nogueira ACR, Domingos FHG, Sans-Jofre P, Bandeira JCS Jr, de Oliveira JGF & Sial AN (2017) The new occurrence of Marinoan cap carbonate in Brazil: the expansion of Snowball Earth events to the southwesternmost Amazon craton. *J. S. Am. Earth Sci.* **76**, 446–459.
- Goddéris Y, Le Hir G, Macouin M, Donnadiou Y, Hubert-Théou L, Dera G, Aretz M, Fluteau F, Li ZX & Halverson GP (2017) Paleogeographic forcing of the strontium isotopic cycle in the Neoproterozoic. *Gondwana Res.* **42**, 151–162.
- Gómez-Peral LE, Sial AN, Arrouy MJ, Richiano S, Ferreira VP, Kaufman AJ & Poiré DG (2017) Paleoclimatic and paleo-environmental evolution of the Neoproterozoic basal sedimentary cover on the Rio de la Plata Craton, Argentina: Insights from the $\delta^{13}\text{C}$ chemostratigraphy. *Sed. Geol.* **353**, 139–157.
- Gyollai I, Polgari M, Fintor K, Pal-Molnar E, Popp F & Koeberl C (2017) Microbial activity records in Marinoan Snowball Earth postglacial transition layers connecting diamictite with cap carbonate (Otavi Group, NW-Namibia). *Austrian J. Earth Sci.* **110**, 2–18.
- Gumsley AP, Chamberlain KR, Bleeker W, Söderlund U, de Kock MO, Larsson ER & Bekker A (2017) Timing and tempo of the Great Oxidation Event. *Proc. Natl Acad. Sci. USA* **114**, 1811–1816.
- Hartmann J, Li G & West AJ (2017) Running out of gas: Zircon ^{18}O -Hf-U/Pb evidence for Snowball Earth preconditioning by low degassing. *Geochem. Persp. Lett.* **4**, 41–46.
- Hoffman PF, Abbot DS, Ashkenazy Y, Benn DI, Brocks JJ, Cohen PA, Cox GM, Creveling JR, Donnadiou Y, Erwin DH, Fairchild IJ, Ferreira D, Goodman JC, Halverson GP, Jansen MF, Le Hir G, Love GD, Macdonald FA, Maloof AC, Partin CA, Ramstein G, Rose BEJ, Rose CV, Sadler PM, Tziperman E, Voigt A & Warren, SG (2017) Snowball Earth climate dynamics and Cryogenian geology–geobiology. *Sci. Adv.* **3**, e1600983, 1–43, doi:10.1126/sciadv.1600983.
- Hoffman PF, Lamothe KG, LoBianco SJC, Hodgskiss MSW, Bellefroid EJ, Johnson BW, Hodgkin EB & Halverson GP (2017) Sedimentary depocenters on Snowball Earth: case studies from the Sturtian Chuos Formation in northern Namibia. *Geosphere* **13**, i. 3, 811–837.
- Hohl SV, Galer SJG, Gamper A & Becker H (2017) Cadmium isotope variations in Neoproterozoic carbonates – a tracer of biological production. *Geochem. Persp. Lett.* **3**, 32–44.
- Hohl SV, Becker H, Jiang SY, Ling HF, Guo QJ & Struck U (2017) Geochemistry of Ediacaran cap dolostones across the Yangtze Platform, South China: implications for diagenetic modification and seawater chemistry in the aftermath of the Marinoan glaciation. *J. Geol. Soc., Lond.* **174**, 893–912.
- Hoshino Y, Poshibaeva A, Meredith W, Snape C, Poshibaev V, Versteegh GJM, Kuznetsov N, Leider A, van Maldegem L, Neumann M, Naeher S, Moczyłowska M, Brocks JJ, Jarrett AJM, Tang Q, Xiao SH, McKirdy D, Das SK, Alvaro JJ, Sansjofre P & Hallmann C (2017) Cryogenian evolution of stigmastereoid biosynthesis. *Sci. Adv.* **3**, e1700887, 1–7.
- Humbert F, Sonnette L, de Kock MO, Robion P, Horng CS, Cousture A & Wabo H (2017) Palaeomagnetism of the early Palaeoproterozoic, volcanic Hekpoort Formation (Transvaal Supergroup) of the Kaapvaal craton, South Africa. *Geophys. J. Intl* **209**, 842–865.
- John SG, Kunzmann M, Townsend EJ & Rosenberg AD (2017) Zinc and cadmium stable isotopes in the geological record: a case study from the post-snowball Nuccaleena cap dolostone. *Palaeogeog. Palaeoecol. Palaeoclimatol.* **466**, 202–208.
- Johnson BW & Goldblatt C (2017) A secular increase in continental crust nitrogen during the Precambrian. *Geochem. Persp. Lett.* **4**, 24–28.
- Johnson BW, Poulton SW & Goldblatt C (2017) Marine oxygen production and open water supported an active nitrogen cycle during the Marinoan Snowball Earth. *Nat. Geosci.* **8**, 1316, 1–10.

- Joshi M, von Glasow R, Smith RS, Paxton CGM, Maycock AC, Lunt DJ, Loptson C & Markwick P (2017) Global warming and ocean stratification: a potential result of large extraterrestrial impacts. *Geophys. Res. Lett.* **44**, 3841–3848.
- Kilic C, Raible CC & Stoker TF (2017) Multiple climate states of habitable exoplanets: the role of obliquity and irradiance. *Astrophys. J.* **844**, 147 (13 p).
- Knoll AH (2017) Food for early animal evolution (News & Views). *Nature* **548**, 528–530.
- Kunzmann M, Bui TH, Crockford PW, Halverson GP, Lyons TW & Wing BA (2017) Bacterial sulfur disproportionation constrains timing of Neoproterozoic oxygenation. *Geology* **45**, 207–210.
- Kunzmann M, Gibson TM, Halverson GP, Hodgskiss MSW, Bui TH, Carozza DA, Sperling EA, Poirier A, Cox GM & Wing BA (2017) Iron isotope biogeochemistry of Neoproterozoic marine shales. *Geochim. Cosmochim. Acta* **209**, 85–105.
- Laakso TA & Schrag DP (2017). A theory of atmospheric oxygen. *Geobiology* **15**, 366–384.
- Lau KV, Macdonald FA, Maher K & Payne JL (2017) Uranium isotope evidence for temporary ocean oxygenation in the aftermath of the Sturtian Snowball Earth. *Earth Planet. Sci. Lett.* **458**, 282–292.
- Le Heron DP, Tofaif S, Vandyk T & Ali DO (2017) A diamictite dichotomy: glacial conveyor belts and olistostromes in the Neoproterozoic of Death Valley, California, USA. *Geology* **45**, 31–34.
- Linnemann U, Pidal AP, Hofmann M, Drost K, Quesada C, Gerdes A, Marko L, Gärtner A, Zieger J, Ulrich J, Krause R, Vickers-Rich P & Horak J (2017) A ~565 Ma old glaciation in the Ediacaran of peri-Gondwanan West Africa. *Intl J. Earth Sci. (Geologische Rundsch.)* **107**, 885–911.
- Liu YG, Peltier WR, Yang J, Vettoretti G & Wang YW (2017) Strong effects of tropical ice-sheet coverage and thickness on the hard snowball Earth bifurcation point. *Clim. Dyn.* **48**, 3459–3474.
- Macdonald FA & Wordsworth R (2017) Initiation of Snowball Earth with volcanic sulfur aerosol emissions. *Geophys. Res. Lett.* **44**(4), 1938–1946.
- Merdith AS, Collins AS, Williams SE, Pisarevsky S, Foden JD, Archibald DB, Blades ML, Alessio BL, Armistead S, Plavsa D, Clark C & Müller RD (2017) A full-plate global reconstruction of the Neoproterozoic. *Gondwana Res.* **50**, 84–134.
- Merdith AS, Williams SE, Müller RD & Collins AS (2017) Kinematic constraints on the Rodinia-Gondwana transition. *Precam. Res.* **299**, 132–150.
- Miller AJ, Strauss JV, Halverson GP, Macdonald FA, Johnston DT & Sperling EA (2017) Tracking the onset of Phanerozoic-style redox-sensitive trace metal enrichments: new data from basal Ediacaran post-glacial strata in NW Canada. *Chem. Geol.* **457**, 24–37.
- Mills BJW, Scotese CR, Walding NG, Shields GA & Lenton TM (2017) Elevated CO₂ degassing rates prevented the return of Snowball Earth during the Phanerozoic. *Nat. Commun.* **8**, 1110.
- Molén MO (2017). The origin of upper Precambrian diamictites, northern Norway: a case study applicable to diamictites in general. *Geologos* **23**(3), 163–181.
- Moore KR, Bosak T, Macdonald FA, Lahr DJG, Newman S, Settens C & Pruss SB (2017) Biologically-agglutinated eukaryotic microfossil from Cryogenian cap carbonates. *Geobiology* **15**, 499–515.
- Morais L, Fairchild TR, Lahr DJG, Rudnitski ID, Schopf JW, Garcia AK, Kudryavtsev AB & Romero GR (2017) Carbonaceous and siliceous Neoproterozoic vase-shaped microfossils (Urucum Formation, Brazil) and the question of early protistan biomineralization. *J. Paleontol.* **91**(3), 393–406;
- Parnell J & Boyce AJ (2017) Microbial sulphate reduction during Neoproterozoic glaciation, Port Askaig Formation, UK. *J. Geol. Soc., Lond.* **174**, 850–854.
- Paula-Santos GM, Caetano-Filho S & Babinski M (2017) Tracking the connection and restriction of West Gondwana São Francisco Basin through isotope chemostratigraphy. *Gondwana Res.* **42**, 280–305.
- Pollard D, Kasting, JF & Zugger ME (2017) Snowball Earth: asynchronous coupling of sea-glacier flow with a global climate model. *J. Geophys. Res., Atmos.* **122**(10), 5157–5171.

- Reinhard CT, Planavsky NJ, Gill BC, Ozaki K, Robbins LJ, Lyons TW, Fischer WW, Wang CJ, Cole DB & Konhauser KO (2017) Evolution of the global phosphorus cycle. *Nature* **541**, 386–389.
- Rodler AS, Frei R, Gaucher C, Korte C, Rosing SA & Germs GJB (2017) Multiproxy isotope constraints on ocean compositional changes across the late Neoproterozoic Ghaub glaciation, Otavi Group, Namibia. *Precam. Res.* **298**, 306–324.
- Rose BEJ, Cronin TW & Bitz CM (2017) Ice caps and ice belts: the effects of obliquity on Ice-albedo feedback. *Astrophys. J.* **846**, 28, 17 pp.
- Sánchez-Baracaldo P, Raven JA, Pisani D & Knoll AH (2017) Early photosynthetic eukaryotes inhabited low-salinity habitats. *Proc. Natl Acad. Sci. USA* **114**, E7737–E7745.
- Sarangi S, Mohanty SP & Barik A (2017) Rare earth element characteristics of Paleoproterozoic cap carbonates pertaining to the Sausar Group, Central India: Implications for ocean paleoredox conditions. *J. Asian Earth Sci.* **148**, 31–50.
- Shields GA & Mills BJW (2017) Tectonic controls on the long-term carbon isotope mass balance. *Proc. Natl Acad. Sci. USA* **114**, 4318–4323.
- Song GY, Wang XQ, Shi XY & Jiang GQ (2017) New U–Pb age constraints on the upper Banxi Group and synchrony of the Sturtian glaciation in South China. *Geosci. Front.* **8**, 1161–1173.
- Torres MA, Moosdorf N, Hartmann J, Adkins JF & West AJ (2017) Glacial weathering, sulfide oxidation, and global carbon cycle feedbacks. *Proc. Natl Acad. Sci. USA* **114**(33), 8716–8721.
- Turbet M, Forget F, Leconte J, Charney B & Tobie G (2017) CO₂ condensation is a serious limit to the deglaciation of Earth-like planets. *Earth Planet. Sci. Lett.* **476**, 11–21.
- Wang Z, Wang JS, Kouketsu Y, Bodnar RJ, Gill BC & Xiao SH (2017) Raman geothermometry of carbonaceous material in the basal Ediacaran Doushantuo cap dolostone: the thermal history of extremely negative $\delta^{13}\text{C}$ signatures in the aftermath of the terminal Cryogenian snowball Earth glaciation. *Precam. Res.* **298**, 174–186.
- Wang Z, Wang JS, Suess E, Wang GZ, Chen C & Xiao SH (2017) Silicified glendonites in the Ediacaran Doushantuo Formation (South China) and their potential paleoclimatic implications. *Geology* **45**, 115–118.
- Wen B, Evans, D.A.D. & Li, Y.X. (2017) Neoproterozoic paleogeography of the Tarim Block: an extended or alternative "missing-link" model for Rodinia? *Earth Planet. Sci. Lett.* **458**, 92–106.
- Yang J, Jansen MF, Macdonald FA & Abbot DS (2017) Persistence of a surface freshwater ocean after a Snowball Earth. *Geology* **45**, 615–618.
- Yang J, Ding F, Ramirez RM, Peltier WR, Hu YY & Liu YG (2017) Abrupt climate transition of icy worlds from snowball to moist runaway greenhouse. *Nat. Geosci.* **10**, 556–560.
- Yu WC, Algeo TG, Du YS, Zhou Q, Wang P, Xu Y, Yuan LJ & Pan W (2017) Newly discovered Sturtian cap carbonate in the Nanhua Basin, South China. *Precam. Res.* **293**, 112–130.
- Zakharov DO, Bindeman IN, Slabunov AI, Ovtcharova M, Coble MA, Serebyakov NS & Schaltegger U (2017) Dating the Paleoproterozoic snowball Earth glaciations using contemporaneous subglacial hydrothermal systems. *Geology* **45**, 667–670.
- Zhou GH, Luo TY, Zhou MZ, Xing LC & Gan T (2017) A ubiquitous hydrothermal episode recorded in the sheet-crack cements of a Marinoan cap dolostone of South China: implications for the origin of the extremely ^{13}C -depleted calcite cement. *J. Asian Earth Sci.* **134**, 63–71.
- Zhou LL, McKenna CA, Long DGF & Kamber BS (2017) LA-ICP-MS elemental mapping of pyrite: an application to the Palaeoproterozoic atmosphere. *Precam. Res.* **297**, 33–35.

2016: 71 7 3 61 13 18 6

- Abbot DS (2016) Analytical investigation of the decrease in the size of the habitable zone due to a limited CO₂ outgassing rate. *Astrophys. J.* **827**:117 (10 pp).
- Affaton P, Kalsbeek F, Boudzoumou F, Trompette R, Thrane K & Frei R (2016) The Pan-African West Congo belt in the Republic of Congo (Congo Brazzaville): stratigraphy of the Mayombe and West Congo Supergroups studied by detrital zircon geochronology. *Precam. Res.* **272**, 185–202

- Angerer T, Hagemann SG, Walde D, Halverson GP & Boyce AJ (2016) Multiple metal sources in the glaciomarine facies of the Neoproterozoic Jacadigo iron formation in the “Santa Cruz deposit”, Corumbá, Brazil. *Precam. Res.* **275**, 369–393.
- Ashkenazy Y & Tziperman E (2016) Variability, instabilities, and eddies in a Snowball Ocean. *J. Clim.* **29**, 869–888.
- Baldwin GJ, Turner EC & Kamber BS (2016) Tectonic controls on distribution and stratigraphy of the Cryogenian Rapitan iron formation, northwestern Canada. *Precam. Res.* **278**, 303–322.
- Bartlett BC & Stevenson DJ (2016) Analysis of a Precambrian resonance-stabilized day length. *Geophys. Res. Lett.* **43**, 5716–5724.
- Bindeman IN, Bekker A & Zakharov DO (2016) Oxygen isotope perspective on crustal evolution on early Earth: A record of Precambrian shales with emphasis on Paleoproterozoic glaciations and Great Oxygenation Event. *Earth Planet. Sci. Lett.* **437**, 101–113.
- Blamey NJF, Brand U, Parnell J, Spear N, Lécuyer, Benison K, Meng FW & Ni P (2016) Paradigm shift in determining Neoproterozoic atmospheric oxygen. *Geology* **44**, 651–654.
- Bold U, Smith EF, Rooney AD, Bowring SA, Buchwaldt R, Dudás FÖ, Ramezani J, Crowley JL, Schrag DP & Macdonald FA (2016) Neoproterozoic stratigraphy of the Zavkhan terrane of Mongolia: the backbone for Cryogenian and early Ediacaran Chemostratigraphic records. *Am. J. Sci.* **316**, 1–63.
- Brocks JJ, Jarett AJM, Sirantoine E, Kenig F, Moczyłowska Ł, Porter S & Hope J (2016) Early sponges and toxic protists: possible sources of cryostane, an age diagnostic biomarker antedating Sturtian Snowball Earth. *Geobiology* **14**, 129–149.
- Busfield ME & Le Heron DP (2016) A Neoproterozoic ice advance sequence, Sperry Wash, California. *Sedimentology* **63**, 307–330.
- Carns RC, Light B & Warren SG (2016) The spectral albedo of sea ice and salt crusts on the tropical ocean of Snowball Earth: II. Optical modeling. *J. Geophys. Res.: Oceans* **121**, 5217–5230.
- Cox GM, Halverson GP, Poirier A, Le Heron D, Strauss JV & Stevenson R (2016) A model for Cryogenian iron formation. *Earth Planet. Sci. Lett.* **433**, 280–292.
- Cox GM, Halverson GP, Stevenson RK, Vokaty M, Poirier A, Kunzmann M, Li ZX, Denyszyn SW, Strauss CV & Macdonald FA (2016) Continental flood basalt weathering as a trigger for Neoproterozoic Snowball Earth. *Earth Planet. Sci. Lett.* **446**, 89–99.
- Creveling JR, Bergmann KD & Grotzinger JP (2016) Cap carbonate platform facies model, Noonday Formation, SE California. *Geol. Soc. Am. Bull.* **128**, 1249–1269.
- Crockford PW, Cowie BR, Johnston DT, Hoffman PF, Sugiyama I, Pellerin A, Bui TH, Hayles J, Halverson GP, Madonald FA & Wing BA (2016) Triple oxygen and multiple sulfur isotope constraints on the evolution of the post-Marinoan sulfur cycle. *Earth Planet. Sci. Lett.* **435**, 74–83.
- Cuk M, Hamilton DP, Lock SJ & Stewart ST (2016) Tidal evolution of the Moon from a high-obliquity, high-angular-momentum Earth. *Nature* **539**, 402–406.
- Delpomdor F, Eyles N, Tack L & Pr eat A (2016) Pre- and post-Marinoan carbonate facies of the Democratic Republic of the Congo: glacially- or tectonically-influenced deep-water sediments? *Palaeogeog. Palaeoclimatol. Palaeoecol.* **457**, 144–157.
- De Wit MJ & Furnes H (2016) 3.5-Ga hydrothermal fields and diamictites in the Barberton Greenstone Belt—Paleoarchean crust in cold environments. *Sci. Adv.* **2**, e1500368.
- Driscoll PE (2016) Simulating 2 Ga of geodynamo history. *Geophys. Res. Lett.* **43**, 5680–5687.
- Fairchild IJ (2016) Neoproterozoic glass-bleeding. *Nature Geoscience (News & Views)* **9**, 192–193.
- Fairchild IJ, Bonnand P, Davies T, Fleming EJ, Grassineau N, Halverson GP, Hambrey MJ, McMillan EM, McKay E, Parkinson IJ & Stevenson CTE (2016) The late Cryogenian warm interval, NE Svalbard: Chemostratigraphy and genesis. *Precam. Res.* **281**, 128–154.
- Fairchild IJ, Fleming EJ, Bao HM, Benn DI, Boomer I, Dublyansky YV, Halverson GP, Hambrey MJ, Hendy C, McMillan EA, Sp otl C, Stevenson CTE & Wynn PM (2016) Continental carbonate facies of a Neoproterozoic panglaciation, north-east Svalbard. *Sedimentology* **63**, 433–497.

- Fleming EJ, Benn DI, Stevenson CTE, Petronis MS, Hambrey MJ & Fairchild IJ (2016) Glacitectonism, subglacial and glacialacustrine processes during a Neoproterozoic panglaciation, north-east Svalbard. *Sedimentology* **63**, 411–442.
- Furuyama S, Kano A, Kunimitsu Y, Ishikawa T & Wei W (2016) Diagenetic overprint to a negative carbon isotope anomaly associated with the Gaskiers glaciation of the Ediacaran Doushantuo Formation in South China. *Precam. Res.* **276**, 110–122.
- Gernon TM, Hincks TK, Tyrrell T, Rohling EJ & Palmer MR (2016) Snowball Earth ocean chemistry driven by extensive ridge volcanism during Rodinia breakup. *Nat. Geosci.* **9**, 242–248.
- Gold DA, Grabenstatter J, de Mendoza A, Riesgo A, Ruiz-Trillo I & Summons RE (2016) Sterol and genomic analyses validate the sponge biomarker hypothesis. *Proc. Natl Acad. Sci. USA* **113**, 2684–2689.
- Gumsley AP, Chamberlain K, Bleeker W, Söderlund U, de Kock MO, Kampmann TC, Larsson E & Bekker A (2016) The timing of the Palaeoproterozoic Great Oxidation Event using dykes, sills and volcanics of the Ongeluk large-igneous province, Kaapvaal craton. *Acta Geol. Sinica* **90**, 67–68.
- Hartmann DL (2016) *Global Physical Climatology*. Elsevier, Amsterdam, 485 p.
- He Q, Zhang SB & Zheng YF (2016) High temperature glacial meltwater reaction in the Neoproterozoic: evidence from zircon *in-situ* oxygen isotopes in granitic gneiss from the Sulu orogen. *Precam. Res.* **284**, 1–13.
- Hoffman PF (2016) Cryoconite pans on Snowball Earth: supraglacial oases for Cryogenian eukaryotes? *Geobiology* **14**, 531–542.
- Hoffman PF, Bellefroid EJ, Crockford PW, de Moor A, Halverson GP, Hodgins EB, Hodgskiss MSW, Holtzman BK, Jasechko GR, Johnson BW & Lamothe KG (2016) A misfit Cryogenian diamictite in the Vrede domes, Northern Damara Zone, Namibia: Chuos (Sturtian) or Ghaub (Marinoan) formation? Moraine or paleovalley? *Communications of the Geol. Surv. Namibia* **17**, 1–16.
- Howe TS, Corcoran PL, Longstaffe FJ, Webb EA & Pratt RG (2016) Climatic cycles recorded in glacially influenced rhythmites of the Gowganda Formation, Huronian Supergroup. *Precam. Res.* **286**, 269–280.
- Huang KJ, Teng FZ, Shen B, Xiao SH, Lang XG, Ma HR, Fu Y & Peng YB (2016) Episode of intense chemical weathering during the termination of the 635 Ma Marinoan glaciation. *Proc. Natl Acad. Sci. USA* **113**, 14904–14909.
- Jansen M (2016) The turbulent circulation of a Snowball Earth ocean. *J. Phys. Oceanog.* **46**, 1901–1916.
- Jones DS (2016) Cracking the Neoproterozoic atmosphere? *Geology* **44**, 687–688.
- Kitzman D (2016) Revisiting the scattering greenhouse effect of CO₂ ice clouds. *Astrophys. J. Lett.* **817**, L18 (5 pp).
- Lang XG, Shen B, Peng YB, Huang KJ, Lu JM & Ma HR (2016) Ocean oxidation during deposition of basal Ediacaran Doushantuo cap carbonates in the Yangtze Platform, South China. *Precam. Res.* **281**, 253–268.
- Lechte M & Wallace M (2016) Sub-ice shelf ironstone deposition during the Neoproterozoic Sturtian glaciation. *Geology* **44**, 891–894.
- Le Heron DP & Busfield ME (2016) Pulsed iceberg delivery driven by Sturtian ice sheet dynamics: an example from Death Valley, California. *Sedimentology* **63**, 331–349.
- Le Heron DP, Alderton DHM, Collinson ME, Grassineau N, Sykes D & Trundle AE (2016) A eukaryotic assemblage intercalated with Marinoan glacial deposits in South Australia. *J. Geol. Soc., Lond.* **173**, 560–568.
- Light B, Carns RC & Warren SG (2016) The spectral albedo of sea ice and salt crusts on the tropical ocean of Snowball Earth: 1. Laboratory measurements. *J. Geophys. Res.: Oceans* **121**, 4966–4979.
- Luo GM, Ono SH, Beukes NJ, Wang DT, Xie SC & Summons RE (2016) Rapid oxygenation of Earth's atmosphere 2.33 billion years ago. *Sci. Adv.* **2**, e1600134, doi:10.1126/sciadv.1600134

- Macouin M, Roques D, Rousse S, Ganne J, Denèle Y & Trindade RIF (2016) Is the Neoproterozoic oxygen burst a supercontinent legacy? *Front. Earth Sci.* **3**, 44, doi: 10.3389/feart.2015.00044
- Nascimento DB, Ribeiro A, Trouw RAJ, Schmitt RS & Passchier CW (2016) Stratigraphy of the Neoproterozoic Damara Sequence in northwest Namibia: slope to basin sub-marine mass transport deposits and olistolith fields. *Precam. Res.* **278**, 108–125.
- Oldfield JD (2016) Mikhail Budyko's (1920–2001) contributions to global climate science: from heat balances to climate change and global ecology. *WIREs Clim. Change* **7**, 682–692.
- Olson SL, Reinhardt CT & Lyons TW (2016) Limited role for methane in the mid-Proterozoic greenhouse. *Proc. Natl Acad. Sci. USA* **113**, 11447–11452.
- Partin CA & Sadler PM (2016) Slow net sediment accumulation sets snowball Earth apart from all younger glacial episodes. *Geology* **44**, 1019–1022.
- Peucker-Ehrenbrink B, Waters CA, Kurz MD & Hoffman PF (2016) No evidence of extraterrestrial noble metal and helium anomalies at Marinoan glacial termination. *Earth Planet. Sci. Lett.* **437**, 76–88.
- Prave AR, Condon DJ, Hoffmann KH, Tapster S & Fallick AE (2016) Duration and nature of the end-Cryogenian (Marinoan) glaciation. *Geology* **44**, 631–634.
- Pu JP, Bowring SA, Ramezani J, Myrow P, Raub TD, Landing E, Mills A & Macdonald FA (2016) Dodging snowballs: geochronology of the Gaskiers glaciation and the first appearance of the Ediacaran biota. *Geology* **44**, 955–958.
- Rodler AS, Frei R, Gaucher C & Germs GJB (2016) Chromium isotope, REE and redox-sensitive trace element chemostratigraphy across the late Neoproterozoic Ghaub glaciation, Otavi Group, Namibia. *Precam. Res.* **286**, 234–249.
- Romero GR, Sanchez EAM, Morais L, Boggiani, PC & Fairchild TR (2016) Tubestone stromatolite association in the Ediacaran cap carbonates in the southern Paraguay Fold Belt (SW Brazil): geobiological and stratigraphic implications for a Marinoan cap carbonate. *J. S. Am. Earth Sci.* **71**, 172–181.
- Saito T, Shibuya T, Komiya T, Kitajima K, Yamamoto S, Nishizawa M, Ueno Y, Kurosawa M & Maruyama S (2016) PIXE and microthermometric analyses of fluid inclusions in hydrothermal quartz from the 23.2 Ga Ongeluk Formation, South Africa: implications for ancient seawater salinity. *Precam. Res.* **286**, 337–351.
- Sansjofre P, Cartigny P, Trindade RIF, Nogueira ACR, Agrinier P & Ader M (2016) Multiple sulfur isotope evidence for massive oceanic sulfate depletion in the aftermath of Snowball Earth. *Nat. Commun* **7**, 12192, doi: 10.1038/ncomms12192.
- Sato H, Tahata M, Sawaki Y, Maruyama S, Yoshida N, Shu DG, Han J, Li Y & Komiya T (2016) A high-resolution chemostratigraphy of post-Marinoan cap carbonate using drill core samples in the Three Gorges area, South China. *Geosci. Front.* **7**, 663–671.
- Shen B, Dong L, Xiao SH, Lang XG, Huang KJ, Peng YB & Zhou CM (2016) Molar tooth carbonates and benthic methane fluxes in Proterozoic oceans. *Nat. Commun* **7**, 10317.
- Shields-Zhou GA, Porter S & Halverson GP (2016) A new rock-based definition for the Cryogenian Period (circa 720 – 635 Ma). *Episodes* **39**, 3–8.
- Smith EF, Macdonald FA, Crowley JL, Hodgkin EB & Schrag DP (2016) Tectonostratigraphic evolution of the c. 780–730 Ma Beck Spring Formation in the core of Rodinia, in Li ZX, Evans DAD & Murphy JB (eds) *Supercontinent Cycles Through Earth History*. Geological Society, London, Sp. Publ. 424, pp. 213–239.
- Sousa Júnior GR, Nogueira ACR, Santos Neto EV, Moura CAV, Araújo BQ & Reis F de AM (2016) Organic matter in the Neoproterozoic cap carbonate from the Amazonian Craton, Brazil. *J. S. Am. Earth Sci.* **72**, 7–24.
- Sovetov JK & Le Heron DP (2016) Birth and evolution of a Cryogenian basin: glaciation, rifting and sedimentation in the Vorogovka Basin, Siberia. *Sedimentology* **63**, 498–522.

- Spence GH, Le Heron DP & Fairchild IJ (2016) Sedimentological perspectives on climatic, atmospheric and environmental change in the Neoproterozoic Era. *Sedimentology* **63**, 253–306.
- Uhlein GJ, Uhlein A, Halverson GP, Stevenson R, Caxito FA, Cox GM & Carvalho JFMG (2016) The Carrancas Formation, Bambuí Group: a record of pre-Marinoan sedimentation on the southern São Francisco craton, Brazil. *J. S. Am. Earth Sci.* **71**, 1–16.
- Uyeda JC, Harmon LJ & Blank CE (2016) A comprehensive study of cyanobacterial morphological and ecological evolutionary dynamics through deep geologic time. *PLoS ONE* **11**(9), e0162539.
- Viehmann S, Bau M, Bühn B, Dantas EL, Andrade FRD & Walde DHG (2016) Geochemical characterization of Neoproterozoic marine habitats: Evidence from trace elements and Nd isotopes in the Urucum iron and manganese formations, Brazil. *Precam. Res.* **282**, 74–96.
- Ward LM, Kirschvink JL & Fischer WW (2016) Timescales of oxygenation following the evolution of oxygenic photosynthesis. *Origin of Life and Evolution of the Biosphere* **46**, 51–65.
- Williams GE, Schmidt, PW & Young GM (2016) Strongly seasonal Proterozoic climate in low palaeolatitudes: radically different climate system on the pre-Ediacaran Earth. *Geosci. Front.* **7**, 555–571.
- Wordsworth RD (2016) The climate of early Mars. *Annu. Rev. Earth Planet. Sci.* **44**, 381–408.
- Wunsch, C. 2016. Tides of global ice-covered oceans. *Icarus* **274**, 122–130.
- Yu WC, Algeo TJ, Du YS, Maynard B, Guo H, Zhou Q, Peng TP, Wang P & Yuan LJ (2016) Genesis of Cryogenian Datangpo manganese deposit: hydrothermal influence and episodic post-glacial ventilation of Nanhua Basin, South China. *Palaeog. Palaeoclimatol. Palaeoecol.* **459**, 321–337.
- Zhou CM, Guan CG, Cui H, Qing OY & Wang W (2016) Methane-derived authigenic carbonate from the lower Doushantuo Formation of South China: implications for seawater sulfate concentration and global carbon cycle in the early Ediacaran ocean. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **461**, 145–155.

2015: 56 10 4 42 9 7 6 19

- Allen P (2015) Snowball climate conundrum. *Nat. Geosci.* **8**, 668–669.
- Bachan A & Kump LR (2015) The rise of oxygen and siderite oxidation during the Lomagundi Event. *Proc. Natl Acad. Sci. USA* **112**, 6562–6567.
- Bao HM (2015) Sulfate: A time capsule for Earth's O₂, O₃, and H₂O. *Chem. Geol.* **395**, 108–118.
- Benn DI, Le Hir G, Bao H, Donnadieu Y, Dumas C, Fleming EJ, Hambrey MJ, McMillan EA, Petronis MS, Ramstein G, Stevenson CTE, Wynn PM & Fairchild IJ (2015) Orbitally forced ice sheet fluctuations during the Marinoan Snowball Earth glaciation. *Nat. Geosci.* **8**, 704–708.
- Carns RC, Brandt RE & Warren SG (2015) Salt precipitation in sea ice and its effect on albedo, with application to Snowball Earth. *J. Geophys. Res.: Oceans* **120**, 7400–7412.
- Chattopadhyay A (2015) Discussion on: “Carbon and oxygen isotope systematics of a Paleoproterozoic cap-carbonate sequence from the Sausar Group, Central India” by S. Mohanty, A. Barik, S. Sarangi and A. Sarkar (2015) published in *Palaeogeography, Palaeoclimatology, Palaeoecology* **417**, 195–209. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **433**, 156–157.
- Cohen P & Macdonald FA (2015) The Proterozoic record of eukaryotes. *Paleobiology* **41**, 610–632.
- Corsetti FA (2015) Life during Neoproterozoic Snowball Earth. *Geology* **43**, 559–560.
- Cox GM, Strauss JV, Halverson GP, Schmitz MD, McClelland WC, Stevenson RS & Macdonald FA (2015) Kikiktat volcanics of Arctic Alaska—melting of harzburgitic mantle associated with the Franklin large igneous province. *Lithosphere* **7**, 275–295.
- Cui X, Zhu WB, Fitzsimmons ICW, He JW, Lu YZ, Wang X, Wang X, Ge RF, Zheng BH & Wu XH (2015) U–Pb age and Hf isotope composition of detrital zircons from Neoproterozoic sedimentary units in southern Anhui Province, South China: Implications for the provenance, tectonics evolution and glacial history of the eastern Jiangnan Orogen. *Precam. Res.* **271**, 65–82.

- Ding HF, Ma DS, Lin QZ & Jing LH (2015) Age and nature of Cryogenian diamictites at Aksu, northwest China: implications for Sturtian tectonics and climate. *Intl Geol. Rev.* **57**, 2044–2064.
- Drummond JBR, Pufahl PK, Porto CG & Carvalho M (2015) Neoproterozoic peritidal phosphorite from the Sete Lagoas Formation (Brazil) and the Precambrian phosphorus cycle. *Sedimentology* **62**, 1978–2008.
- Etemad-Saeed N, Hosseini-Barzi M, Adabi MH, Miller NR, Sadeghi A, Houshmanzadeh A & Stockli DF (2015) Evidence for ca. 560 Ma Ediacaran glaciation in the Kahar Formation, central Alborz Mountains, northern Iran. *Gondwana Res.* **31**, 164–183.
- Erwin DH (2015) Early metazoan life: divergence, environment and ecology. *Phil. Trans. R. Soc., Lond., B*, **370**, 10.1098/rstb.2015.0036
- Feulner G & Kienert H (2015) Climate simulations of Neoproterozoic snowball Earth events: similar critical carbon dioxide levels for the Sturtian and Marinoan glaciations. *Earth Planet. Sci. Lett.* **404**, 200–205. See also Corrigendum **430**, 551–552.
- Feulner G, Hallmann C & Kienert H (2015) Snowball cooling after algal rise. *Nat. Geosci.* **8**, 659–662.
- Gumsley A, Olsson J, Söderlund U, de Kock M, Hofmann A & Klausen M (2015) Precise U–Pb baddeleyite age dating of the Usushwana Complex, southern Africa—Implications for the Mesoarchean magmatic and sedimentological evolution of the Pongola Supergroup, Kaapvaal Craton. *Precam. Res.* **267**, 174–185.
- Harada M, Tajika E & Sekine Y (2015) Transition to an oxygen-rich atmosphere with an extensive overshoot triggered by the Paleoproterozoic snowball Earth. *Earth Planet. Sci. Lett.* **419**, 178–186.
- He JW, Zhu WB, Zheng BH, Wu HL, Cui XA & Lu YS (2015) Neoproterozoic diamictite-bearing sedimentary rocks in the northern Yili Block and their constraints on the Precambrian evolution of microcontinents in the Western Central Asian Orogenic Belt. *Tectonophysics* **665**, 23–36.
- Herwartz D, Pack A, Krylov D, Xiao YL, Muehlenbachs K, Sengupta S & Di Rocco T (2015) Revealing the climate of snowball Earth from $\Delta^{17}\text{O}$ systematics of hydrothermal rocks. *Proc. Natl Acad. Sci. USA* **112**(17), 5337–5341. doi:10.1073/pnas.1422887112
- Hofmann M, Linnemann U, Hoffmann K-H, Germs G, Gerdes A, Marko L, Eckelmann K, Gärtner A & Krause R (2015) The four Neoproterozoic glaciations of southern Namibia and their detrital zircon record: the fingerprints of four crustal growth events during two supercontinent cycles. *Precam. Res.* **259**, 176–188.
- Hood AvS, Wallace MW, Reed CP, Hoffmann K-H & Freyer EE (2015) Enigmatic carbonates of the Ombombo Subgroup, Otavi Fold Belt, Namibia: A prelude to extreme Cryogenian anoxia? *Sed. Geol.* **324**, 12–31.
- Horton F (2015) Did phosphorus derived from the weathering of large igneous provinces fertilize the Neoproterozoic ocean? *Geochem. Geophys. Geosyst.* **16**(6), 1723–1738.
- Kampmann TC, Gumsley AP, de Kock MO & Söderlund U (2015) U–Pb geochronology and paleomagnetism of the Westerberg Sill Suite, Kaapvaal Craton—support for a coherent Kaapvaal–Pilbara block (Vaalbara) into the Paleoproterozoic? *Precam. Res.* **269**, 58–72.
- Kanzaki Y & Murakami T (2015) Estimates of atmospheric CO_2 in the Neoproterozoic–Paleoproterozoic from paleosols. *Geochim. Cosmochim. Acta* **159**, 190–219.
- Klein R, Salminen J & Mertanen S (2015) Baltica during the Ediacaran and Cambrian: a paleomagnetic study of Hailuoto sediments in Finland. *Precam. Res.* **267**, 94–105.
- Kuchenbecker M, Pedrosa-Soares AC, Babinski M & Fanning M (2015) Detrital zircon age patterns and provenance assessment for pre-glacial to post-glacial successions of the Neoproterozoic Macaúbas Group, Araçuaí orogen, Brazil. *Precam. Res.* **266**, 12–26.
- Kunzmann M, Halverson GP, Minarik WG & Wing BA (2015) Geochemistry of Neoproterozoic black shales from Svalbard: Implications for oceanic redox conditions spanning Cryogenian glaciations. *Chem. Geol.* **417**, 383–393.

- Lan ZW, Li XH, Zhang QR, Li QL (2015) Global synchronous initiation of the 2nd episode of Sturtian glaciation: SIMS zircon U–Pb and O isotope evidence from the Jiangkou Group, South China. *Precam. Res.* **267**, 28–38.
- Lan ZW, Li XH, Zhu MY, Zhang QR & Li QL (2015) Revisiting the Liantuo Formation in Yangtze Block, South China: SIMS U–Pb zircon age constraints and regional and global significance. *Precam. Res.* **263**, 123–141.
- Le Ber E, Le Heron DP & Oxtoby NH (2015) Influence of microbial framework on Cryogenian microbial facies, Rasthof Formation, Namibia, in Bosence DWJ, Gibbons KA, Le Heron DP, Morgan WA, Pritchard T & Vining BA (eds) *Microbial Carbonates in Space and Time: Implications for Global Exploration and Production*. Geological Society, London, Sp. Publ. 418, pp. 111–122.
- Lechte MA & Wallace MW (2015) Sedimentary and tectonic history of the Holowilena Ironstone, a Neoproterozoic iron formation in South Australia. *Sedimentary Geology* **329**, 211–224.
- Le Heron DP (2015) The significance of ice-rafted debris in Sturtian glacial successions. *Sed. Geol.* **322**, 19–33.
- Liu PJ, Li XH, Chen SM, Lan ZW, Yang B, Shang XD & Yin CY (2015) New SIMS U–Pb zircon age and its constraint on the beginning of the Nantuo glaciation. *Sci. Bull.* **60**, 958–963.
- Love GD & Summons RE (2015) The molecular record of Cryogenian sponges – A response to Antcliffe (2013). *Palaeontology* **58**, 1131–1136.
- Macouin M, Roques D, Rousse S, Ganne J, Denèle Y & Trindade RIF (2015) Is the Neoproterozoic oxygen burst a supercontinental legacy? *Front. Earth Sci.* **3**, 44, 1–10.
- McGee B, Collins AS, Trindade RIF & Jourdan F (2015) Investigating mid-Ediacaran glaciation and final Gondwana amalgamation using coupled sedimentology and ⁴⁰Ar/³⁹Ar detrital muscovite provenance from the Paraguay Belt, Brazil. *Sedimentology* **62**(1), 130–154.
- Menou K (2015) Climate stability of habitable Earth-like planets. *Earth Planet. Sci. Lett.* **429**, 20–24.
- Mohanty SP, Barik A, Sarangi S & Sarkar A (2015a) Carbon and oxygen isotope systematics of a Paleoproterozoic cap-carbonate sequence from the Sausar Group, Central India. *Palaeogeog., Palaeoclimatol. Palaeoecol.* **417**, 195–209.
- Mohanty SP, Barik A, Sarangi S & Sarkar A (2015b) Reply to discussion on: “Carbon and oxygen isotope systematics of a Paleoproterozoic cap-carbonate sequence from the Sausar Group, Central India” by Anupam Chattopadhyay (2015) published in *Palaeogeog. Palaeoclimatol. Palaeoecol.* **433**, 156–157. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **438**, 425–427.
- Nédélec A & Borisova AY (2015) Commentary: Is the Neoproterozoic oxygen burst a supercontinental legacy? *Front. Earth Sci.* **3**, 80, 1–3.
- Paula-Santos GM, Babinski M, Kuchenbecker M, Caetano-Filho S, Trindade RIF & Pedrosa-Soares AC (2015) New evidence of an Ediacaran age for the Bambuí Group in southern São Francisco craton (eastern Brazil) from zircon U–Pb data and isotope chemostratigraphy. *Gondwana Res.* **28**, 702–720.
- Pogge von Strandmann PAE, Stüeken EA, Elliott T, Poulton SW, Dehler CM, Canfield DE & Catling DC (2015) Selenium isotope evidence for progressive oxidation of the Neoproterozoic biosphere. *Nat. Commun.* **6**, 10157.
- Rapalini AE, Tohver E, Sánchez Betucci L, Lossada AC, Barcelona H & Pérez C (2015) The late Neoproterozoic Sierra de las Ánimas Magmatic Complex and Playa Hermosa Formation, southern Uruguay, revisited: paleogeographic implications of new paleomagnetic and precise geochronologic data. *Precam. Res.* **259**, 143–155.
- Retallack GJ, Gose BN & Osterhout JT (2015) Periglacial paleosols and Cryogenian paleoclimate near Adelaide, South Australia. *Precam. Res.* **263**, 1–18.
- Rooney AD, Strauss JV, Brandon AD & Macdonald FA (2015) A Cryogenian chronology: Two long-lasting synchronous Neoproterozoic glaciations. *Geology* **43**, 459–462.

- Rose CV, Maloof AC, Schoene B, Ewing RC, Linnemann U, Hofmann M & Cottle JM (2015) The end-Cryogenian glaciation of South Australia, in Murphy JB, Hildebrand RS & Halverson GP (eds) *Stirring the Pot*. Geological Association of Canada, Geosci. Can. Reprint Ser. **11**, pp. 113–150.
- Rose BEJ (2015) Stable “Waterbelt” climates controlled by tropical ocean heat transport: a non-linear coupled climate mechanism of relevance to Snowball Earth. *J. Geophys. Res., Atmos.* **120**, doi: 10.1002/2014JD022659
- Sánchez-Baracaldo P (2015) Origin of marine planktonic cyanobacteria. *Sci. Rep.* **5**, 17418, doi:10.1038/srep17418
- Spiegel TC, Paeth H & Frimmel HE (2015) Evaluating key parameters for the initiation of a Neoproterozoic Snowball Earth with a single Earth System Model of intermediate complexity. *Earth Planet. Sci. Lett.* **415**, 100–110.
- Stewart JA, Gutjahr M, Pearce F, Swart PK & Foster GL (2015) Boron during meteoric diagenesis and its potential implications for Marinoan snowball Earth $\delta^{11}\text{B}$ -pH excursions. *Geology* **43**, 627–630.
- Tahata M, Sawaki Y, Yoshiya K, Nishizawa M, Komiya T, Hirata T, Yoshida N, Maruyama S & Windley BF (2015) The marine environments encompassing the Neoproterozoic glaciations: evidence from C, Sr and Fe isotope ratios in the Hecla Hoek Supergroup in Svalbard. *Precam. Res.* **263**, 19–42.
- Van Kranendonk MJ, Mazumder R, Yamaguchi KE, Yamada K & Ikehara M (2015) Sedimentology of the Paleoproterozoic Kungarra Formation, Turee Creek Group, Western Australia: A conformable record of the transition from early to modern Earth. *Precam. Res.* **256**, 314–343.
- Vieira LC, Nédélec A, Fabre S, Trindade RIF & de Almeida RP (2015) Aragonite crystal fans in Neoproterozoic cap carbonates: A case study from Brazil and implications for the post-snowball Earth coastal environment. *J. Sed. Res.* **85**, 285–300.
- Wen B, Evans DAD, Li YX, Wang ZR & Liu C (2015) Newly discovered Neoproterozoic diamictite and cap carbonate (DCC) couplet in Tarim Craton, NW China: stratigraphy, geochemistry, and paleoenvironment. *Precam. Res.* **271**, 278–284.
- Williams GE & Schmidt PW (2015) Low paleolatitude for the late Cryogenian interglacial succession, South Australia: paleomagnetism of the Angepena Formation, Adelaide Geosyncline. *Austral. J. Earth Sci.* **62**, 243–253.
- Ye Q, Tong JN, Xiao SH, Zhu SX, An ZH & Hu J (2015) The survival of benthic macroscopic phototrophs on a Neoproterozoic snowball Earth. *Geology* **43**, 507–510.
- Zhang FF, Zhu XK, Yan B, Kendall B, Peng X, Li J, Algeo TJ & Romaniello S (2015) Oxygenation of a Cryogenian ocean (Nanhua Basin, South China) revealed by pyrite Fe isotope compositions. *Earth Planet. Sci. Lett.* **429**, 11–19.
- 2014: 45* 6 1 39* 8 7 7* 16**
- Abbot DS (2014) Resolved Snowball Earth clouds. *J. Clim.* **27**(12), 4391–4402.
- Alvarenga CJS, Santos RV, Vieira LC, Lima BAF & Mancini LH (2014) Meso-Neoproterozoic isotope stratigraphy on carbonate platforms in the Brasilia Belt of Brazil. *Precam. Res.* **251**, 164–180.
- Ashkenazy Y, Gildor H, Losch M & Tziperman E (2014) Ocean circulation under globally glaciated Snowball Earth conditions: steady-state solutions. *J. Phys. Oceanogr.* **44**, 24–43.
- Bindeman IN, Serebryakov NS, Schmitt AK, Vazquez JA, Guan Y, Azimov PY, Astafiev BY, Palandri J & Dobrzhinetskaya L (2014) Field and microanalytical investigation of ultradepleted in ^{18}O Paleoproterozoic “Slushball Earth” rocks from Karelia, Russia. *Geosphere* **10**(5), 10.1130/GES00969.1.
- Busfield ME & Le Heron DP (2014) Sequencing the Sturtian icehouse: dynamic ice behaviour in South Australia. *J. Geol. Soc., Lond.* **171**, 443–456.

- Campbell AJ, Waddington ED & Warren SG (2014) Refugium for surface life on Snowball Earth in a nearly-enclosed sea? A numerical solution for sea-glacier invasion through a narrow strait. *J. Geophys. Res.* **119**, 2679–2690, doi: 10.1002/2013JC009703.
- Creveling JR & Mitrovica JX (2014) The sea-level fingerprint of a Snowball Earth deglaciation. *Earth Planet. Sci. Lett.* **399**, 74–85.
- Delpomdor F, Kant F & Préalat A (2014) Neoproterozoic uppermost Haut-Shiloango Subgroup (West Congo Supergroup, Democratic Republic of Congo): misinterpreted stromatolites and implications for sea-level fluctuations before the onset of the Marinoan glaciation. *J. Afr. Earth Sci.* **90**, 49–63.
- Ewing RC, Eisenman I, Lamb MB, Poppick L, Maloof AC & Fischer WW (2014) New constraints on equatorial temperatures during a Late Neoproterozoic snowball Earth glaciation. *Earth Planet. Sci. Lett.* **406**, 110–122.
- Feldman DR, Collins WD, Pincus R, Huang XL & Chen XH (2014) Far-infrared surface emissivity and climate. *Proc. Natl Acad. Sci. USA* **111**(46), 16297–16302.
- Ferreira D, Marshall J, O’Gorman PA & Seager S (2014) Climate at high-obliquity. *Icarus* **243**, 236–248.
- Fraser CI, Terauds A, Smellie J, Convey P & Chown SL (2014) Geothermal activity helps life survive glacial cycles. *Proc. Natl Acad. Sci. USA* **111**(15), 5634–5639, doi:10.1073/pnas.1321437111
- Gärtner C, Bahlburg H, Melezhik VA & Berndt J (2014) Dating Palaeoproterozoic glacial deposits of the Fennoscandian Shield using detrital zircons from Kola Peninsula, Russia. *Precam. Res.* **246**, 281–295.
- Gaschnig RM, Rudnick RL, McDonough WF, Kaufman AJ, Hu ZC & Gao S (2014) Onset of oxidative weathering of continents recorded in the geochemistry of ancient glacial diamictites. *Earth Planet. Sci. Lett.* **408**, 87–99.
- Gyollai I, Mader D, Polgari M, Popp F & Koeberl C (2014) Lack of evidence for impact signatures in Neoproterozoic postglacial deposits from NW-Namibia. *Austrian J. Earth Sci.* **107**, 100–111.
- He JW, Zhu WB & Ge F (2014) New age constraints on Neoproterozoic diamictites in Kuruktag, NW China and Precambrian crustal evolution of the Tarim craton. *Precam. Res.* **241**, 44–60.
- Kasemann SA, Pogge von Strandman PAE, Prave AR, Fallick AE, Elliott T & Hoffmann K-H (2014) Continental weathering following a Cryogenian glaciation: Evidence from calcium and magnesium isotopes. *Earth Planet. Sci. Lett.* **396**, 66–77.
- Kataoka R, Ebisuzaki T, Miyahara H, Nimura T, Tomida T, Sato T & Maruyama S (2014) The Nebular winter: the united view of the snowball Earth, mass extinctions, and explosive evolution in the late Neoproterozoic and Cambrian periods. *Gondwana Res.* **25**(3), 1153–1163.
- Lan ZW, Li XH, Zhu MY, Chen ZQ, Zhang QR, Li QL, Lu DB, Liu Y & Tang GJ (2014) A rapid and synchronous initiation of the widespread Cryogenian glaciations. *Precam. Res.* **255**, 401–411.
- Le Heron DP, Busfield ME & Collins AS (2014) Bolla Bollana boulder beds: a Neoproterozoic trough mouth fan. *Sedimentology* **61**(4), 978–995.
- Le Heron DP, Busfield ME & Prave AR (2014) Neoproterozoic ice sheets and olistoliths: multiple glacial cycles in the Kingston Peak Formation, California. *J. Geol. Soc., Lond.* **171**, 525–538.
- Liu C, Wang ZR, Raub TD, Macdonald FA & Evans DAD (2014) Neoproterozoic cap-dolostone deposition in stratified glacial meltwater plume. *Earth Planet. Sci. Lett.* **404**, 22–32.
- Losch M & Hanfland JC (2014) Als die Erde ein Schneeball war. *Physik der Unserer Zeit* **45**, 64–71.
- Lucarino V, Blender R, Herbert C, Ragone F, Pascale S & Wouters J (2014) Mathematical and physical ideas for climate science. *Rev. Geophys.* **52**, 809–859.
- Mahon RC, Dehler CM, Link PK, Karlstrom KE & Gehrels GE (2014) Detrital zircon provenance and paleogeography of the Pahrump Group and overlying strata, Death Valley, California. *Precam. Res.* **251**, 102–117.
- McKenzie NR, Hughes NC, Gill BC & Myrow PM (2014) Plate tectonic influences on Neoproterozoic—early Paleozoic climate and animal evolution. *Geology* **42**(2), 127–130.

- Merschat AJ, Southworth S, McClellan E, Tollo RP, Rankin DW, Hooper S & Bauer S (2014) Key structural and stratigraphic relationships from the northeast end of the Mountain City window and the Mount Rogers area, Virginia–North Carolina–Tennessee, in Bailey CM & Coiner LV (eds) *Elevating Geoscience in the Southeastern United States: New Ideas about Old Terranes. Field Guide, GSA Southeastern Section Meeting, Blacksburg, Virginia*. Geological Society of America, Field Guide 35, pp. 63–101.
- Mickala O-R, Vidal L, Boudzoumou F, Affaton P, Vandamme D, Borschneck D, Mounquengui MM, Fournier F, Nganga DMM & Miche H (2014) Geochemical characterization of the Marinoan “Cap Carbonate” of the Niari-Nyanga Basin (Central Africa). *Precam. Res.* **255**(1), 367–380.
- Ohnemueller F, Prave AR, Fallick AE & Kasemann SA (2014) Ocean acidification in the aftermath of the Marinoan glaciation. *Geology* **42**, 1103–1106.
- Ojakangas RW, Srinivasan R, Hegde VS, Chandrakant SM & Srikantia SV (2014) The Talya Conglomerate: an Archean (~2.7 Ga) glaciomarine formation, western Dharwar craton, southern India. *Curr. Sci.* **106**(3), 387–396.
- Planavsky NJ, Reinhardt CT, Wang XL, Thomson D, McGoldrick P, Rainbird RH, Johnson T, Fischer WW & Lyons TW (2014) Low mid-Proterozoic atmospheric oxygen levels and the delayed rise of animals. *Science* **346**, p. 635–638.
- Pointing SB, Bollard-Breen B & Gillman LN (2014) Commentary: diverse cryptic refuges for life during glaciation. *Proceedings of the National Academy of Sciences (USA)* **111**, 5452–5453.
- Riedman LA, Porter SM, Halverson GP, Hurtggen MT & Junium CK (2014) Organic-walled microfossil assemblages from glacial and interglacial Neoproterozoic units of Australia and Svalbard. *Geology* **42**, 1011–1014.
- Rooney AD, Macdonald FA, Strauss JV, Dudás FÖ, Hallmann C & Selby D (2014) Re–Os geochronology and coupled Os–Sr isotope constraints on the Sturtian snowball Earth. *Proc. Natl Acad. Sci. USA* **111**(1), 51–56.
- Sánchez-Baracaldo P, Ridgwell A & Raven JA (2014) A Neoproterozoic transition in the marine nitrogen cycle. *Curr. Biol.* **24**, 1–6.
- Sawaki Y, Tahata M, Ohno T, Komiya T, Hirata T, Maruyama S, Han J & Shu DG (2014) The anomalous Ca cycle in the Ediacaran ocean: evidence from Ca isotopes preserved in carbonates in the Three Gorges area, South China. *Gondwana Res.* **25**(3), 1070–1089.
- Schmidt PW (2014) A review of Precambrian palaeomagnetism of Australia: palaeogeography, supercontinents, glaciations and true polar wander. *Gondwana Res.* **25**(3), 1164–1185.
- Serezhnikova EA, Ragozina AL, Dorjnamjaa D & Zaitseva LV (2014) Fossil microbial communities in Neoproterozoic interglacial rocks, Maikhanuul Formation, Zavkhan basin, western Mongolia. *Precam. Res.* **245**, 66–79.
- Teitler Y, Le Hir G, Fluteau F, Philippot P & Donnadiou Y (2014) Investigating the Paleoproterozoic glaciations with 3-D climate modeling. *Earth Planet. Sci. Lett.* **395**, 71–80.
- Thompson MD, Remazani J & Crowley JL (2014) U–Pb zircon geochronology of Roxbury Conglomerate, Boston Basin, Massachusetts: tectono-stratigraphic implications for Avalonia in and beyond SE New England. *Am. J. Sci.* **314**(6), 1009–1040.
- Ushikubo T, Williford KH, Farquhar J, Johnston DT, Van Kranendonk MJ & Valley JH (2014) Development of in situ sulfur four-isotope analysis with multiple Faraday cup detectors by SIMS and application to pyrite grains in a Paleoproterozoic glaciogenic sandstone. *Chem. Geol.* **383**, 86–99.
- van Staden A, Zimmermann U, Gutzmer J & Germs GJB (2014) Provenance of the Neoproterozoic rocks of the Gifberg Group (western South Africa). *S. Afr. J. Geol.* **117**(1), 45–66.
- Wallace MW, Hood AvS, Woon EMS, Hoffmann K-H & Reed CP (2014) Enigmatic chambered structures in Cryogenian reefs: the oldest sponge-grade organisms? *Precam. Res.* **255**, 109–123.

- Wang QX, Lin ZJ & Chen DF (2014) Geochemical constraints on the origin of Doushantuo cap carbonates in the Yangtze Gorges area, South China. *Sed. Geol.* **304**, 59–70.
- Yonkee WA, Dehler CD, Link PK, Balgord EA, Keeley JA, Hayes DS, Wells CM, Fanning CM & Johnston SM (2014) Tectono-stratigraphic framework of Neoproterozoic to Cambrian strata, west-central U.S.: protracted rifting, glaciation, and evolution of the North American Cordilleran margin. *Earth-Sci. Rev.* **136**, 59–95.
- Young GM (2014) Contradictory correlations of Paleoproterozoic glacial deposits: local, regional or global controls. *Precam. Res.* **247**, 33–44.
- Zhang XL, Shu DG, Han J, Zhang ZF, Liu JN & Fu DJ (2014) Triggers for the Cambrian explosion: hypotheses and problems. *Gondwana Res.* **25**(3), 896–909.
- Zhu XY, Chen FK, Nie H, Siebel W, Yang YZ, Xue YY & Zhai MG (2014) Neoproterozoic tectonic evolution of South Qinling, China: evidence from zircon ages and geochemistry of the Yaolinghe volcanic rocks. *Precam. Res.* **245**, 115–130.
- 2013: 67 9 4 52 14 8 6 28**
- Abbot DS, Voigt A, Li DW, Le Hir G, Pierrehumbert RT, Branson M, Pollard D & Koll DDB (2013) Robust elements of Snowball Earth atmospheric circulation and oases for life. *J. Geophys. Res.: Atmos.* **118**, 6017–6027, doi:10.1002/jgrd.50540.
- Antcliffe JB (2013) Questioning the evidence of organic compounds called sponge biomarkers. *Palaeontology* **56**, 917–925.
- Ashkenazy Y, Gildor H, Losch M, Macdonald FA, Schrag DP & Tziperman E (2013) Dynamics of a Snowball Earth ocean. *Nature* **495**, 90–95.
- Babinski M, Boggiani PC, Trindade RIF & Fanning CM (2013) Detrital zircon ages and geochronological constraints on the Neoproterozoic Puga diamictite and associated BIFs in the southern Paraguay Belt, Brazil. *Gondwana Res.* **23**, 988–997.
- Balgord EA, Yonkee WA, Link PK & Fanning CM (2013) Stratigraphic, geochronologic, and geochemical record of the Cryogenian Perry Canyon Formation, northern Utah: Implications for Rodinia rifting and snowball Earth glaciation. *Geol. Soc. Am. Bull.* **125**, 1442–1467.
- Becker B (2013) Snow ball earth and the split of Streptophyta and Chlorophyta. *Trends Plant Sci.* **18**, 180–183.
- Bender ML (2013) *Paleoclimate*. Princeton University Press, Princeton, NJ, 306 p.
- Bold U, Macdonald FA, Smith EF, Crowley JC, Minjin C & Dorjnamjaa D (2013) Elevating the Neoproterozoic Tsagaan-Olom Formation to a Group. *Mongolian Geoscientist* **39**, 89–94.
- Bosak T, Mariotti G, Macdonald FA, Perron JT & Pruss SB (2013) Microbial sedimentology in Neoproterozoic cap carbonates, in Bush AM, Pruss SB & Payne JL (eds) *Ecosystem Paleobiology and Geobiology, Paleontological Society Short Course, October 26, 2013*. Paleontological Society, Pap. **19**, 1–25.
- Brasier AT, Martin AP, Melezhik VA, Prave AR, Condon DJ Fallick AE & FAR-DEEP Scientists (2013) Earth's oldest global glaciation? Carbonate geochemistry and geochronology of the Polisarka Sedimentary Formation, Kola Peninsula, Russia. *Precam. Res.* **235**, 278–294.
- Busfield ME & Le Heron DP (2013) Glacitectonic deformation in the Chuos Formation of northern Namibia: implications for Neoproterozoic ice dynamics. *Proc. Geologists' Assoc.* **124**, 778–789.
- Eriksson PG, Banerjee S, Catuneanu O, Corcoran PL, Eriksson KA, Hiatt EE, Laflamme M, Lenhardt N, Long DGF, Miall AD, Mints MV, Pufahl PK, Sarkar S, Simpson EL & Williams GE (2013) Secular changes in sedimentation systems and sequence stratigraphy. *Gondwana Res.* **24**, 468–489.
- Calver CR, Crowley JL, Wingate MTD, Evans DAD, Raub TD & Schmitz MD (2013) Globally synchronous Marinoan deglaciation indicated by U-Pb geochronology of the Cottons Breccia, Tasmania, Australia. *Geology* **41**, 1127–1130.
- Cao XB & Bao HM (2013) Dynamic model constraints on oxygen-17 depletion in atmospheric O₂ after a snowball Earth. *Proc. Natl Acad. Sci. USA* **110**(36), 14546–14550.

- Charnay B, Forget F, Wordsworth R, Leconte J, Millour E, Codron F & Spiga A (2013) Exploring the faint young Sun problem and the possible climates of the Archean Earth with a 3-D GCM. *J. Geophys. Res.* **118**, 10414–10431.
- Chumakov NM, Pokrovskii BG & Maslov AV (2013) Stratigraphic position and significance of carbonate rocks related to Neoproterozoic glacial horizons of the Urals. *Stratigr. Geol. Correlation* **12**(6), 573–591.
- Chumakov NM, Semikhatov MA & Sergeev VN (2013) Vendian reference section of southern middle Siberia. *Stratigr. Geol. Correlations* **21**, 359–382.
- Cox GM, Halverson GP, Minarik WG, Le Heron DP, Macdonald FA, Bellefroid EJ, Strauss JV (2013) Neoproterozoic iron formation: An evaluation of its temporal, environmental and tectonic significance. *Chem. Geol.* **362**, 232–249.
- Dadic R, Mullen PC, Schneebeli M, Brandt RE & Warren SG (2013) Effects of bubbles, cracks, and volcanic tephra on the spectral albedo of base ice near the Transantarctic Mountains: Implications for sea glaciers on Snowball Earth. *J. Geophys. Res.: Earth Surface* **118**, 1–19, doi:10.1002/jgrf.20098.
- Dalton L, Bosak T, Macdonald FA, Lahr DG & Pruss SB (2013) Preservational and morphological variability of assemblages of agglutinated eukaryotes in cap carbonates of the Rasthof Formation, northern Namibia. *Palaios* **28**, 67–79.
- Derkowski A, Bristow TF, Wampler JM, Słodóń J, Marynowski L, Elliott WC & Chamberlain CP (2013) Hydrothermal alteration of the Ediacaran Doushantuo Formation in the Yangtze Gorges area (South China). *Geochim. Cosmochim. Acta* **107**, 279–298.
- Du QD, Wang ZJ, Wang J, Qiu YS, Jiang XS, Deng Q & Yang F (2013) Geochronology and paleoenvironment of the pre-Sturtian glacial strata: Evidence from the Liantuo Formation in the Nanhua rift basin of the Yangtze Block, South China. *Precam. Res.* **233**, 118–131.
- Fabre S, Berger G, Chavagnac V & Besson P (2013) Origin of cap carbonates: an experimental approach. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **392**, 524–533.
- Fiorella RP & Poulsen CJ (2013) Dehumidification over tropical continents reduces climate sensitivity and inhibits Snowball Earth initiation. *J. Clim.* **26**, 9677–9695.
- Gao LZ, Guo XP, Ding XZ, Zong WM, Gao ZJ, Zhang CH & Wang ZQ (2013) Nanhuan glaciation event and its stratigraphic correlation in Tarim Plate, China. *Acta Geosci. Sinica* **34**, 39–57.
- Geboy NJ, Kaufman AJ, Walker RJ, Misi A, de Oliveira TF, Miller KE, Azmy K, Kendall B & Poulton SW (2013) Re–Os age constraints and new observations of Proterozoic glacial deposits in the Vazante Group, Brazil. *Precam. Res.* **238**, p. 199–213.
- Goldblatt C, Robinson TD, Zahnle KJ & Crisp D (2013) Low simulated radiation limit for runaway greenhouse climates. *Nat. Geosci.* **6**, 661–667.
- Goodman JC & Strom DC (2013) Feedbacks in a coupled ice-atmosphere-dust model of the glacial Neoproterozoic “Mudball Earth”. *J. Geophys. Res.* **118**, 1–12, doi:10.1002/jgrd.50849
- Goto KT, Sekine Y, Suzuki K, Tajika E, Senda R, Nozaki T, Tada R, Goto K, Yamamoto S, Maruoka T, Ohkouchi N & Ogawa NO (2013) Redox conditions in the atmosphere and shallow-marine environments during the first Huronian deglaciation: Insights from Os isotopes and redox-sensitive elements. *Earth Planet. Sci.* **376**, 145–154.
- Hoffman PF (2013) The Great Oxidation and a Siderian snowball Earth: MIF-S based correlation of Paleoproterozoic glacial epochs. *Chem. Geol.* **362**, 143–156.
- Huang J, Chu XL, Lyons TW, Sun T, Feng LJ, Zhang QR & Chang HJ (2013) The sulfur isotope signatures of Marinoan deglaciation captured in Neoproterozoic shallow-to-deep cap carbonate from South China. *Precam. Res.* **238**, 42–51.
- Ivanov AV, Mazukabsov AM, Stanevich AM, Palesskiy SV & Kozmenko OA (2013) Testing the snowball Earth hypothesis for the Ediacaran: *Geology* **41**, 787–790.

- Kataoka R, Ebisuzaki T, Miyahara H, Nimura T, Tomida T, Sato T & Maruyama S (2013) The Nebula Winter: the united view of the snowball Earth, mass extinctions, and explosive evolution in the late Neoproterozoic and Cambrian periods. *Gondwana Res.* **25**(3), 1153–1163.
- Kendall B, van Acken D & Creaser RA (2013) Depositional age of the early Paleoproterozoic Klippits Member, Nelani Formation (Ghaap Group, Transvaal Supergroup, South Africa) and implications for low-level Re-Os geochronology and Paleoproterozoic global correlations. *Precam. Res.* **237**, 1–12.
- Killingsworth BA, Hayles JA, Zhou CM & Bao HM (2013) Sedimentary constraints on the duration of the Marinoan Oxygen-17 Depletion (MOSD) event. *Proc. Natl Acad. Sci. USA* **110**(44), 17686–17690.
- Kuipers G, Beunk FF & van der Wateren FM (2013) Periglacial evidence for a 1.91–1.89 Ga old glacial period at low latitude, central Sweden. *Geol. Tod.* **29**(6), 218–221.
- Kunzmann M, Halverson GP, Sossi PA, Raub TD, Payne JL & Kirby J (2013) Zn isotope evidence for immediate resumption of primary productivity after snowball Earth. *Geology* **41**, 27–30.
- Le Ber E, Le Heron DP, Winterleitner G, Bosence DWJ, Vining BA & Komona F (2013) Microbialite recovery in the aftermath of the Sturtian glaciation: insights from the Rasthof Formation, Namibia. *Sed. Geol.* **294**, 1–12.
- Le Heron DP, Busfield ME & Kamona F (2013a) An interglacial on snowball Earth? Dynamic ice behaviour revealed in the Chuos Formation, Namibia. *Sedimentology* **60**, 411–427.
- Le Heron DP, Busfield ME, LeBer E & Kamona AF (2013b) Neoproterozoic ironstones in northern Namibia: Biogenic precipitation and Cryogenian glaciation. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **369**, 48–57.
- Li ZX & Evans DAD & Halverson GP (2013) Neoproterozoic glaciations in a revised global palaeogeography from the breakup of Rodinia to the assembly of Gondwanaland. *Sed. Geol.* **294**, 219–232.
- Liu C, Wang ZR & Raub TD (2013) Geochemical constraints on the origin of Marinoan cap dolostones from Nuccaleena Formation, South Australia. *Chem. Geol.* **351**, 95–104.
- Liu YG & Peltier WR (2013) Sea level variations during snowball Earth formation: 1. A preliminary analysis. *J. Geophys. Res.* **118**(8), 4410–4424.
- Liu YG, Peltier WR, Yang J & Vetteretti G (2013) The initiation of Neoproterozoic “snowball” climates in CCM3: the influence of paleocontinental configuration. *Clim. Past* **9**(6), 2555–2577.
- Macdonald FA, Prave AR, Petterson R, Smith EF, Pruss SB, Oates K, Waechter F, Trotsuk D & Fallick AE (2013) The Laurentian record of Neoproterozoic glaciation, tectonism, and eukaryotic evolution in Death Valley, California. *Geol. Soc. Am. Bull.* **125**, 1203–1223.
- McGee B & Collins AS & Trindade RIF (2013) A glacially incised canyon in Brazil: further evidence for mid-Ediacaran glaciation? *J. Geol.* **121**, 275–287.
- Peng YB, Bao HM, Zhou CM, Yuan XL & Luo TY (2013) Oxygen isotope composition of meltwater from a Neoproterozoic glaciation in South China. *Geology* **41**, 367–370.
- Rasmussen B, Bekker A & Fletcher IR (2013) Correlation of Paleoproterozoic glaciations based on U–Pb zircon ages of tuff beds in the Huronian and Transvaal Supergroups. *Earth Planet. Sci. Lett.* **382**, 173–180.
- Retallack GJ (2013) Ediacaran Gaskiers glaciation of Newfoundland reconsidered. *J. Geol. Soc., Lond.* **170**, 19–36.
- Rodehacke CB, Voigt A, Ziemer F & Abbot DS (2013) An open ocean region in Neoproterozoic glaciations would have to be narrow to allow equatorial ice sheets. *Geophys. Res. Lett.* **40**(20), 5503–5507.
- Rose B, Ferreira D & Marshall J (2013) The role of oceans and sea ice in abrupt transitions between multiple climate states. *J. Clim.* **26**(9), 2862–2879.

- Rose CV, Maloof AC, Schoene B, Ewing RC, Linnemann U, Hofmann M & Cottle JM (2013) The End-Cryogenian glaciation of South Australia. *Geosci. Can.* **40**(4), <http://dx.doi.org/10.12789/geocanj.2013.40.019>
- Russell GL, Lacin AA, Rind DH, Colose C & Opstbaum RF (2013) Fast atmosphere-ocean model runs with large changes in CO₂. *Geophys. Res. Lett.* **40**, 5787-5792.
- Schmidt PW & Williams GE (2013) Anisotropy of thermoremanent magnetization of Cryogenian glaciogenic and Ediacaran red beds, South Australia: Neoproterozoic apparent or true polar wander. *Glob. Planet. Change* **110**(C), 289–301.
- Schrag DP, Higgins JA, Macdonald FA & Johnston DT (2013) Authigenic carbonate and the history of the global carbon cycle. *Science* **339**, 540–543.
- Sergeev VN, Chumakov NM & Semikhatov MA (2013) Microfossils from cap dolomites of the Lower Vendian Churochnaya Formation in the Polyudov Range (North Urals): paleoecological approach to interpretation of Late Proterozoic glaciations. *Stratigr. Geol. Correlations* **21**(1), 1–7.
- Smith AJB, Beukes NJ & Gutzmer J (2013) The composition and depositional environments of Mesoarchean iron formation of the West Rand Group of the Witwatersrand Supergroup, South Africa. *Econ. Geol.* **108**, 111–134.
- Soares JL, Nogueira ACR, Domingos F & Riccomini C (2013) Synsedimentary deformation and the paleoseismic record in Marinoan cap carbonates of the southern Amazon craton. *J. S. Am. Earth Sci.* **48**, 58–72.
- Stern RJ, Mukherjee SK, Miller NR, Ali K & Johnson PR (2013) ~750 Ma banded iron formation from the Arabian-Nubian Shield—implications for understanding Neoproterozoic tectonics, volcanism and climate change. *Precam. Res.* **239**, 79–94.
- Swanner ED, Bekker A, Pecoits E, Konhauser KO, Cates NL & Mojzsis SJ (2013) Geochemistry of pyrite from diamictites of the Bolgeeda Iron Formation, Western Australia, with implications for the GOE and Paleoproterozoic ice ages. *Chem. Geol.* **362**, 131–142.
- Tang H & Chen Y 2013. Global glaciations and atmospheric change at ca 2.3 Ga. *Geosci. Front.* **4**, 583–596.
- Voigt A (2013) The dynamics of the Snowball Earth Hadley circulation for off-equatorial and seasonally varying insolation. *Earth Syst. Dyn.* **4**, 425–438.
- Wen B, Li YX & Zhu WB (2013) Paleomagnetism of the Neoproterozoic diamictites of the Qiaoenbrak Formation in the Aksu area, NW China: constraints on the paleogeographic position of the Tarim block. *Precam. Res.* **226**, 75–90.
- Wing BA (2013) Commentary: A cold, hard look at ancient oxygen. *Proc. Natl Acad. Sci. USA* **110**(36), 14514–14515.
- Young GM (2013a) Evolution of the Earth's climate system: Evidence from ice ages, isotopes, and impacts. *GSA Tod.* **23**(10), 4–10.
- Young GM (2013b) Climatic catastrophes in Earth history: two great Proterozoic glacial episodes. *Geogr. J.* **48**, 1–21.
- Zhang SH, Evans DAD, Li HY, Wu HC, Jiang GQ, Dong J, Zhao QL, Raub TD & Yang TS (2013) Paleomagnetism of the late Cryogenian Nantuo Formation and paleogeographic implications for the South China Block. *J. Asian Earth Sci.* **72**, 164–177.
- 2012: 44* 1 5 38* 8 7 3 20***
- Abbot DS, Voigt A, Branson M, Pierrehumbert RT, Pollard D, Le Hir G & Koll DDB (2012) Clouds and Snowball Earth deglaciation. *Geophys. Res. Lett.* **39**, L20711, 1–4, doi:1029/2012GL052861
- Arnaud E (2012) The paleoclimatic significance of deformation structures in Neoproterozoic successions. *Sed. Geol.* **243-244**, 33–56.
- Babinski M, Pedrosa-Soares AC, Trindade RIF, Martins M, Noce CM & Liu D (2012) Neoproterozoic glacial deposits from the Araçuaí orogen, Brazil: Age, provenance and correlations with São Francisco craton and West Congo belt. *Gondwana Res.* **21**, 451–465.

- Baldwin GJ, Turner EC & Kamber BS (2012) A new depositional model for glacial Neoproterozoic iron formation: insights from the chemostratigraphy and basin configuration of the Rapitan iron formation. *Can. J. Earth Sci.* **49**, 455–476.
- Bao H, Chen, Z-Q & Zhou C (2012) An ^{17}O record of late Neoproterozoic glaciation in the Kimberley region, Western Australia. *Precam. Res.* **216-219**, 152–161.
- Bosak T, Lahr DJG, Pruss SB, Macdonald FA, Gooday AJ & Dalton L (2012) Possible early foraminiferans in post-Sturtian (716–635 Ma) cap carbonates. *Geology* **40**, 67–70.
- Brain CK, Prave AR, Hoffmann K-H, Fallick AE, Botha A, Herd DA, Sturrock C, Young I, Condon DJ & Allison SG (2012) The first animals: ca. 760-million-year-old sponge-like fossils from Namibia. *S. Afr. J. Sci.* **108**(1/2), art. #658, 8 p.
- Carto SL & Eyles N (2012) Identifying glacial influences on sedimentation in tectonically-active, mass-flow dominated arc basins with reference to the Neoproterozoic Gaskiers glaciation (c. 580 Ma) of the Avalonian-Cadomian orogenic belt. *Sed. Geol.* **261-262**, 1–14.
- Carto SL & Eyles N (2012) Sedimentology of the Neoproterozoic (c. 580 Ma) Squantum ‘Tillite’, Boston Basin, USA: Mass flow deposition in a deep-water arc basin lacking direct glacial influence. *Sed. Geol.* **261-262**, 1–14.
- Caxito F de A, Halverson GP, Uhlein A, Stevenson R, Gonçalves Dias T & Uhlein GJ (2012) Marinoan glaciation in east central Brazil. *Precam. Res.* **200-203**, 38–58.
- Fabre S & Berger G (2012) How tillite weathering during the snowball Earth aftermath induced cap carbonate deposition. *Geology* **40**, 1027–1030.
- Fromhold TA & Wallace MW (2012) Regional recognition of the Neoproterozoic Sturtian-Marinoan boundary, northern and southern Adelaide Geosyncline, South Australia. *Austral. J. Earth Sci.* **59**, 527–546.
- Gammon PR (2012) An organodiagenetic model for Marinoan-age cap carbonates. *Sed. Geol.* **243-244**, 17–32.
- Gammon PR, McKirdy DM & Smith HD (2012) The paragenetic history of a Marinoan cap carbonate. *Sed. Geol.* **243-244**, 1–16.
- Germis GJB & Gaucher C (2012) Nature and extent of a late Ediacaran (ca 547 Ma) glacial erosion surface in southern Africa. *S. Afr. J. Geol.* **115**, 91–102.
- Guy BM, Ono S, Kaufman AJ, Lin Y, Fogel ML & Beukes NJ (2012) A multiple sulfur and organic carbon isotope record from non-conglomeratic sedimentary rocks of the Mesoarchean Witwatersrand Supergroup, South Africa. *Precam. Res.* **216-219**, 206–231.
- Hoffman PF, Halverson GP, Domack EW, Swanson-Hysell NL, Cox GM & Maloof AC (2012) Cryogenian glaciations on the southern tropical paleomargin of Laurentia (NE Svalbard and East Greenland), and a primary origin for the upper Russøya (Islay) carbon isotope excursion. *Precam. Res.* **206-207**, 137–158.
- Johnston DT, Macdonald FA, Gill BC, Hoffman PF & Schrag DP (2012) Uncovering the Neoproterozoic carbon cycle. *Nature* **483**, 320–324.
- Keeley JA, Link PK, Fanning CM & Schmitz MD (2012) Pre- to synglacial rift-related volcanism in the Neoproterozoic (Cryogenian) Pocatello Formation, SE Idaho: New SHRIMP and CA-ID-TIMS constraints. *Lithosphere* **5**, 128–150.
- Laybourn-Parry J, Tranter M & Hodson AJ (2012) *The Ecology and Snow and Ice Environments*. Oxford University Press, Oxford, 179 p.
- Le Heron DP (2012) The Cryogenian record of glaciation and deglaciation in South Australia. *Sed. Geol.* **243-244**, 57–69.
- Le Heron DP (2012) The location and styles of ice-free “oases” during Neoproterozoic glaciations with evolutionary implications. *Geosciences* **2**(2), 90–118.
- Le Heron DP & Craig J (2012) Neoproterozoic deglacial sediments and their hydrocarbon source rock potential, in Huuse M, Redfern J, Le Heron DP, Dixon RJ, Moscariello A & Craig J (eds)

- Glaciogenic Reservoirs and Hydrocarbon Systems*. Geological Society, London, Sp. Publ. **368**, pp. 381–393.
- Li C, Love GD, Lyons TW, Scott CT, Feng L, Huang J, Chang H, Zhang Q & Chu X (2012) Evidence for a redox stratified Cryogenian marine basin, Datangpo Formation, South China. *Earth Planet. Sci. Lett.* **331-332**, 246–256.
- McGee B, Halverson GP & Collins AS (2012) Cryogenian rift-related magmatism and sedimentation: South-western Congo Craton, Namibia. *J. Afr. Earth Sci.* **76**, 34–49.
- Meyer EE, Quicksall AN, Landis JD, Link PK & Bostick BC (2012) Trace and rare earth element investigation of a Sturtian cap carbonate, Pocatello, Idaho: evidence for ocean redox conditions before and during carbonate deposition. *Precam. Res.* **192-195**, 89–106.
- Pisarevsky SA, McCausland PJA, Hodych JP, O'Brien SJ, Tait JA & Murphy JB (2012) Paleomagnetic study of the late Neoproterozoic Bull Arm and Crown Hill formations (Musgravetown Group) of eastern Newfoundland: implications for Valonia and West Gondwana paleogeography. *Can. J. Earth Sci.* **49**, 308–327.
- Rice AHN, Edwards MB & Hansen TA (2012) Neoproterozoic glacial and associated facies in the Tanafjord–Varangerfjord area, Finnmark, North Norway. Geological Society of America, Field Guide **26**, 83 p.
- Rose CV, Swanson-Hysell NL, Husson JM, Poppick LN, Cottle JM, Schoene B & Maloof AC (2012) Constraints on the origin and relative timing of the Trezona $\delta^{13}\text{C}$ anomaly below the end-Cryogenian glaciation. *Earth Planet. Sci. Lett.* **319-320**, 241–250.
- Sahoo SK, Planavsky NJ, Kendall B, Wang XQ, Shi XY, Scott C, Anbar AD, Lyons TW & Jiang GQ (2012) Ocean oxygenation in the wake of the Marinoan glaciation. *Nature* **489**, 546–549.
- Shields-Zhou GA, Hill AC & Macgabhann BA (2012) The Cryogenian Period, in Gradstein FM, Ogg JG, Schmitz MD & Ogg GM (eds) *The Geologic Time Scale 2012, Vol. 1*. Elsevier, Amsterdam, pp. 393–411.
- Strand K (2012) Global and continental-scale glaciations on the Precambrian earth. *Mar. Petrol. Geol.* **33**, 69–79.
- Swart PK & Kennedy MJ (2012) Does the global stratigraphic reproducibility of $\delta^{13}\text{C}$ in Neoproterozoic carbonates require a marine origin? A Pliocene–Pleistocene comparison. *Geology* **40**, 87–90.
- Tewari VC (2012) Neoproterozoic Blaini glacial diamictite and Ediacaran Krol carbonate sedimentation in the Lesser Himalaya, India, in Bhat GM, Craig J, Thurow JW, Thusu B & Cozzi A (eds) *Geology and Hydrocarbon Potential of Neoproterozoic-Cambrian Basins in Asia*. Geological Society, London, Sp. Publ. **366**, pp. 265–276.
- Thompson MD, Barr SM & Grunow AM (2012) Avalonian perspectives on Neoproterozoic paleogeography: Evidence from Sm-Nd isotope geochemistry and detrital zircon geochronology in SE New England, USA. *Geol. Soc. Am. Bull.* **124**, 517–531.
- Tziperman E, Abbot DS, Ashkenazy Y, Gildor H, Pollard D, Schoof CG & Schrag DP (2012) Continental constriction and oceanic ice-cover thickness in a Snowball-Earth scenario. *J. Geophys. Res.* **117**, C05016, 1–12, doi:10.1029/2011JC007730
- Vernhet E, Youbi N, Chellai EH, Villeneuve M & Archi A El (2012) The Bou-Azzer glaciation: Evidence for an Ediacaran glaciation on the West African Craton (Anti-Atlas, Morocco). *Precam. Res.* **196-197**, 106–112.
- Voigt A & Abbot DS (2012) Sea-ice dynamics strongly promote Snowball Earth initiation and destabilize tropical sea-ice margins. *Clim. Past* **8**, 2445–2475.
- Voigt A, Held IM & Marotzke J (2012) Hadley cell dynamics in a virtually dry Snowball Earth atmosphere. *Journal of the Atmospheric Sciences* **69**, 116–128. doi: 10.1175/JAS-D-11-083.1
- Yang J, Hu YY, Peltier WR (2012) Radiative effects of ozone on the climate of a Snowball Earth. *Clim. Past* **8**, 2019–2029.

- Yang J, Peltier WR & Hu YY (2012) The initiation of modern soft and hard Snowball Earth climates in CCSM4. *Clim. Past* **8**, 907–918.
- Yang J, Peltier WR & Hu YY (2012) The initiation of modern “Soft Snowball” and “Hard Snowball” climates in CCM3. Part I: the influences of solar luminosity, CO₂ concentration, and the sea-ice/snow albedo parameterization. *J. Clim.* **25**, 2711–2736.
- Yang J Peltier WR & Hu YY (2012) The initiation of modern “Soft Snowball” and “Hard Snowball” climates in CCM3. Part II: climate dynamic feedbacks. *J. Clim.* **25**, 2737–2754.
- Young GM (2012) Secular changes at the Earth’s surface: evidence from palaeosols, some sedimentary rocks, and palaeoclimatic perturbations of the Proterozoic Eon. *Gondwana Res.* **24**, 453–467.

2011: 48 4 2 41 13 7 4 17 (+77)

- Abbot DS, Voigt A & Koll D (2011) The Jormungand global climate state and implications for Neoproterozoic glaciations. *J. Geophys. Res.* **116**, D18103, doi: 10.1029/2011JD015927
- Allen PA, Leather J, Brasier MD, Rieu R, McCarron M, le Guerroué E, Etienne JL & Cozzi A (2011) The Abu Mahara Group (Gubrah and Fiq formations), Jabal Akhdar, Oman, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 251–262.
- Allen PA, Rieu R, Etienne JL, Matter A & Cozzi A (2011) The Ayn Formation of the Mirbat Group, Dhofar, Oman, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 239–249.
- Alvarenga CJS, Boggiani PC, Babinski M, Dardenne MA, Figueiredo, F, Dantas EL, Uhlen A, Santos RV, Sial AN & Trompette R (2011) Glacially influenced sedimentation of the Puga Formation, Cuiabá Group and Jacadigo Group, and associated carbonates of the Araras and Corumbá groups, Paraguay Belt, Brazil, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 487–497.
- Arnaud E & Etienne JL (2011) Recognition of glacial influence in Neoproterozoic sedimentary successions, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 39–50.
- Arnaud E & Fairchild IJ (2011) The Port Askaig Formation, Dalradian Supergroup, Scotland, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 635–642.
- Arnaud E, Halverson GP & Shields-Zhou G (2011) The geological record of Neoproterozoic ice ages, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 10–16.
- Bahlburg H & Dobrzinski N (2011) A review of the chemical index of alternation (CIA) and its application to the study of Neoproterozoic glacial deposits and climate transition, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 81–91.
- Bindeman IN & Serebryakov NS (2011) Geology, petrology and O and H geochemistry of remarkably ¹⁸O depleted Paleoproterozoic rocks of the Belamorian Belt, Karelia, Russia, attributed to global glaciation 2.4 Ga. *Earth Planet. Sci. Lett.* **306**, 163–174.
- Bjerrum CJ & Canfield DE (2011) Towards a quantitative understanding of the late Neoproterozoic carbon cycle. *Proc. Natl Acad. Sci. USA* **108**, 5542–5547.
- Bongiolo EM, Renac C, Mexias AS, Boscato Gomez ME, Ronchi LH & Patrier-Mas P (2011) Evidence of Ediacaran glaciation in southernmost Brazil through magmatic to meteoric fluid circulation in the porphyry-epithermal Au-Cu deposits of Lavras do Sul. *Precam. Res.* **189**, 404–419.
- Bosak T, Lahr DJG, Pruss SB, Macdonald FA, Dalton L & Matys E (2011) Agglutinated tests in post-Sturtian cap carbonates of Namibia and Mongolia. *Earth Planet. Sci. Lett.* **308**, 29–40.

- Bosak T, Macdonald FA, Lahr DJG & Matys E (2011) Putative Cryogenian ciliates from Mongolia. *Geology* **39**, 1123–1126.
- Boudzoumou F, Vandamme D, Affaton P & Gattacceca J (2011) Neoproterozoic paleomagnetic poles in the Taoudeni Basin (West Africa). *Comptes Rendus Geoscience* **343**(4), 284–294.
- Bristow TF, Boniface M, Derkowski A, Eiler JM & Grotzinger JP (2011) A hydrothermal origin for isotopically anomalous orange dolostone cements from south China. *Nature* **474**, 68–71.
- Brookfield ME, Coniglio M, Glasauer S & Rieu R (2011) Petrology, elemental and isotope geochemistry, and geomicrobiology of carbonate infillings and biofilms lining cracks below the Neoproterozoic (Sturtian) cap carbonate in the Mirbat Inlier, southernmost Oman, in Tewari V & Seckbach J (eds) *Stromatolites: Interactions of Microbes with Sediments*. Springer, Dordrecht, pp. 525–540.
- Cabral AR, Moore JM, Mapani BS, Koubová M & Sattler C-D (2011) Geochemical and mineralogical constraints on the genesis of the Otjosundu ferromanganese deposit, Namibia: hydrothermal exhalative versus hydrogenetic (including snowball-Earth) origins. *S. Afr. J. Geol.* **114**, 57–76.
- Calver CR (2011) Neoproterozoic glacial deposits of Tasmania, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 649–657.
- Campbell AJ, Waddington ED & Warren SG (2011) Refugium for surface life on Snowball Earth in a nearly-enclosed sea? A first simple model for sea-glacier invasion. *Geophys. Res. Lett.* **38**, L19502, doi:10.1029/2011GL048846
- Caron V, Ekomane E, Mahieux G, Moussango P & Ndjeng E (2011) The Mintom Formation (new): Sedimentology and geochemistry of a Neoproterozoic, paralic succession in south-east Cameroon. *J. Afr. Earth Sci.* **59**, 111–124.
- Carto SL & Eyles N (2011a) The deep-marine glaciogenic Gaskiers Formation, Newfoundland, Canada, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 475–480.
- Carto SL & Eyles N (2011b) The Squantum Member of the Boston Basin, Massachusetts, USA, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 211–216.
- Chew D & Kirkland C (2011) The Chiquerío Formation, southern Peru, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 481–486.
- Chumakov NM (2011) Late Proterozoic African glacial era. *Stratigraphy and Geological Correlation* **19**, 1–20.
- Chumakov NM (2011) Glacial deposits of the Bokson Group, East Sayan Mountains, Buryatian Republic, Russian Federation, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 285–288.
- Chumakov NM (2011) The Neoproterozoic glacial formations of the North and Middle Urals, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 289–296.
- Chumakov NM (2011) Glacial deposits of the Nichatka Formation, Chara River basin and review of Upper Precambrian diamictites of Central Siberia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 297–302.
- Chumakov NM (2011) Glacial deposits of the Baykonur Formation, Kazakhstan and Kyrgyzstan, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 303–307.
- Chumakov NM, Pokrovsky BG & Melezhik VA (2011) The glaciogenic Bol'shoy Patom Formation, Lena River, central Siberia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 309–316.

- Condon DL & Bowring SA (2011) A user's guide to Neoproterozoic geochronology, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 135–149.
- Corkeron M (2011) Neoproterozoic glacial deposits of the Kimberley region and northwestern Northern Territory, Australia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 659–672.
- Domack EW & Hoffman PF (2011) An ice grounding-line wedge from the Ghaub glaciation (635 Ma) on the distal foreslope of the Otavi carbonate platform, Namibia, and its bearing on the Snowball Earth hypothesis. *Geol. Soc. Am. Bull.* **123**, 1448–1477.
- Erwin DH, Laflamme M, Tweedt SM, Sperling EA, Pisani D & Peterson KJ (2011) The Cambrian conundrum: Early divergence and later ecological success in the early history of animals. *Science* **334**, 1091–1097.
- Etienne JL, Allen PA, Le Guerroué E, Heaman L, Ghosh SK & Islam R (2011) The Blaini Formation of the Lesser Himalaya, NW India, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 347–355.
- Evans DAD & Raub TD (2011) Neoproterozoic glacial palaeolatitudes: a global update, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 93–112.
- Fabre S, Berger G & Nédélec A (2011) Modeling of continental weathering under high-CO₂ atmospheres during Precambrian times. *Geochem. Geophys. Geosyst.* **12**, Q10001, doi:10.1029/2010GC003444
- Ferreira, D, Marshall J & Rose B (2011) Climate determinism revisited: multiple equilibria in a complex climate model. *J. Clim.* **24**, 992–1012.
- Figueiredo MF, Babinksi M & Alvarenga CJS (2011) The Serra Azul Formation, Paraguay Belt, Brazil, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 499–502.
- Frimmel HE (2011) The Chameis Gate Member, Chameis Group, Marmora Terrane, Namibia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 217–221.
- Frimmel HE (2011) The Kaigas and Numees formations, Port Nolloth Group, in South Africa and Namibia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 223–231.
- Frimmel HE (2011) The Karoetjes Kop and Bloupoort formations, Giftberg Group, South Africa, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 233–237.
- Goddéris Y, Le Hir G & Donnadieu Y (2011) Modelling the snowball Earth, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 151–161.
- Gostin VA, McKirdy DM, Webster LJ & Williams GE (2011) Mid-Ediacaran ice-rafting in the Adelaide Geosyncline and Officer Basin, South Australia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 673–676.
- Grey K, Hill AC & Calver C (2011) Biostratigraphy and stratigraphic subdivision of Cryogenian successions of Australia in a global context, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 113–134.
- Guimarães JT, Misi A, Pedreira AJ & Dominguez JML (2011) The Bedebouro Formation, Una Group, Bahia (Brazil), in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 503–508.

- Halverson GP (2011) Glacial sediments and associated strata of the Polarisbreen Group, northeastern Svalbard, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 571–579.
- Halverson GP & Shields-Zhou G (2011) Chemostratigraphy and the Neoproterozoic glaciations, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 51–66.
- Halverson GP, Poitrasson F, Hoffman PF, Nédélec A, Montel J-M & Kirby J (2011) Fe isotope and trace element geochemistry of the Neoproterozoic syn-glacial Rapitan iron formation. *Earth Planet. Sci. Lett.* **309**, 100–112.
- Hill AC, Haines PW & Grey K (2011) Neoproterozoic glacial deposits of central Australia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 677–691.
- Hoffman PF (2011) Strange bedfellows: glacial diamictite and cap carbonate from the Marinoan (635 Ma) glaciation in Namibia. *Sedimentology* **58**, 57–119.
- Hoffman PF (2011) A history of Neoproterozoic glacial geology, 1871–1997, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 17–37.
- Hoffman PF (2011) Glaciogenic and associated strata of the Otavi carbonate platform and foreslope, northern Namibia: evidence for large base-level and glacioeustatic changes, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 195–210.
- Hoffman PF & Halverson GP (2011) Neoproterozoic glacial record in the Mackenzie Mountains, northern Canadian Cordillera, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 397–411.
- Hoffman PF, Macdonald FA & Halverson GP (2011) Chemical sediments associated with Neoproterozoic glaciation: iron formation, cap carbonate, barite and phosphorite, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 67–80.
- Hu Y, Yang J, Ding F & Peltier WR (2011) Model-dependence of the CO₂ threshold for melting the hard Snowball Earth. *Clim. Past* **7**, 17–25.
- Huang J, Chu X, Jiang G, Feng L & Chang H (2011) Hydrothermal origin of elevated iron, manganese and redox-sensitive trace elements in the c. 635 Ma Doushantuo cap carbonate. *J. Geol. Soc., Lond.* **168**, 805–815.
- Jenkins RJF (2011) Billy Springs glaciation, South Australia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 693–699.
- Kennedy MJ & Christ-Blick N (2011) Condensation origin for Neoproterozoic cap carbonates during deglaciation. *Geology* **39**, 319–322.
- Kong FF, Yuan XL & Zhou CM (2011) Paleoproterozoic glaciation: Evidence from carbon isotope record of the Hutuo Group, Wutai Mountain area of Shanxi Province, China. *Chinese Sci. Bull.* **56**, 2922–2930.
- Kumpulainen RA (2011) The Neoproterozoic glaciogenic Lillfjället Formation, southern Swedish Caledonides, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 629–634.
- Kumpulainen RA & Greiling RO (2011) Evidence for late Neoproterozoic glaciation in the central Scandinavian Caledonides, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 623–628.
- Le Heron DP, Cox G, Trundle A & Collins A (2011) Sea ice-free conditions during the Sturtian glaciation (early Cryogenian), South Australia. *Geology* **39**, 31–34.

- Le Heron DP, Cox G, Trundley A & Collins A (2011) Two Cryogenian glacial successions compared: aspects of the Sturt and Elatina sediment records of South Australia. *Precam. Res.* **186**(1), 147-168. doi: 10.1016/j.precamres.2011.01.014
- Li DW & Pierrehumbert RT (2011) Sea glacier flow and dust transport on Snowball Earth. *Geophys. Res. Lett.* **38**, L17501, doi:10.1029/2011GL048991
- Lin Z, Wang Q, Feng D, Liu Q & Chen D (2011) Post-depositional origin of highly ^{13}C -depleted carbonate in the Doushantuo cap dolostone in South China: Insights from petrography and stable carbon isotopes. *Sed. Geol.* **242**, 71–79.
- Link PK & Christie-Blick N (2011) Neoproterozoic strata of southeastern Idaho and Utah: record of Cryogenian rifting and glaciation, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 425–436.
- Liu YG, Peltier WR (2011) A carbon cycle coupled climate model of Neoproterozoic glaciation: Explicit carbon cycle with stochastic perturbations. *J. Geophys. Res.* **116**, D02125, doi: 10.1029/2010JD015128
- Lund K & Alenikoff JN & Evans KV (2011) The Edwardsburg Formation and related rocks, Windermere Supergroup, central Idaho, USA, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 437–447.
- Jiang G, Shi X, Zhang S, Wang Y & Xiao S (2011) Stratigraphy and paleogeography of the Ediacaran Doushantuo Formation (ca. 635–551 Ma) in South China. *Gondwana Res.* **10**, 831–849.
- Macdonald FA (2011) The Tsagaan Oloom Formation, southwestern Mongolia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 331–337.
- Macdonald FA (2011) The Hula Hula Diamictite and Katakaturuk Dolomite, Arctic Alaska, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 379–387.
- Macdonald FA & Cohen P (2011) The Tatonduk inlier, Alaska-Yukon border, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 389–396.
- Macdonald FA & Jones DS (2011) The Khubsugul Group, northern Mongolia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 339–345.
- Master S & Wendorff M (2011) Neoproterozoic glaciogenic diamictites of the Katanga Supergroup, Central Africa, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 173–184.
- Meert JG, Gibsher AS, Levashova NM, Grice WC, Kamenov GD & Ryabinin AB (2011) Glaciation and ~770 Ma Ediacara (?) fossils from the Lesser Karatau microcontinent, Kazakhstan. *Gondwana Res.* **10**, 867–880.
- Miller NR, Avigad D, Stern RJ & Beyth M (2011) The Tambien Group, northern Ethiopia (Tigre), in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 263–276.
- Mills B, Watson AJ, Goldblatt C, Boyle R & Lenton TM (2011) Timing of Neoproterozoic glaciations linked to transport-limited global weathering. *Nat. Geosci.* **4**, 861–864.
- Misi A, Kaufman AJ, Azmy K, Dardenne MA, Sial AN & Oliveira TF de (2011) Neoproterozoic successions of the São Francisco Craton, Brazil: the Bambuí, Una, Vazante and Vaza Barris/Miaba groups and their glaciogenic deposits, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 509–522.
- Montañez IP, Algeo TJ, Chandler MA, Johnson KR, Kennedy MJ, Kent DV, Kiehl JT, Kump LR, Norris RD, Ravelo AC, Turekian KK, Eary DA, Rogers ND, Gibbs CR & Edkin EJ (2021) Climate

- transitions, tipping points, and the point of no return, in Montañez IP *et al.* (eds) *Understanding Earth's Deep Past: Lessons for Our Climate Future*. U.S. National Academies Press, Washington, DC, pp. 63–80.
- Mrofka D & Kennedy M (2011) The Kingston Peak Formation in the eastern Death Valley region, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 449–458.
- Nystuen JP & Lamminen JT (2011) Neoproterozoic glaciation of South Norway: from continental interior to rift and pericratonic basins in western Baltica, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 613–622.
- Pazos PJ & Rapalini A (2011) The controversial stratigraphy of the glacial deposits in the Tandilia System, Argentina, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 565–569.
- Pazos PJ, Rapalini AE, Sánchez Bettucci LS & Tófaló OR (2011) The Playa Hermosa Formation, Playa Verde Basin, Uruguay, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 547–553.
- Pecoits E, Gingras MK & Konhauser KO (2011) Las Ventanas and San Carlos formations, Maldonado Group, Uruguay, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 555–564.
- Pedrosa-Soares AC, Babinski M, Noce C, Martins M, Queiroga G & Vilela F (2011) The Neoproterozoic Macaúbas Group (Araçuaí orogen, SE Brazil) with emphasis on the diamictite formations, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 523–534.
- Peng YB, Bao HM, Zhou CM & Yuan, X (2011) ¹⁷O-depleted barite from two Marinoan cap dolostone sections, South China. *Earth Planet. Sci. Lett.* **305**, 21–31.
- Petterson R, Prave AR & Wernicke BP (2011) Glaciogenic and related strata of the Neoproterozoic Kingston Peak Formation in the Panamint Range, Death Valley region, California, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 459–466.
- Petterson R, Prave AR, Wernicke BP & Fallick AE (2011) The Neoproterozoic Noonday Formation, Death Valley region, California. *Geol. Soc. Am. Bull.* **123**, 1317–1336.
- Pierrehumbert RT, Abbot DS, Voigt A & Koll D (2011) Climate of the Neoproterozoic. *Annu. Rev. Earth Planet. Sci.* **39**, 417–460.
- Prave AR & Fallick AE (2011) The Neoproterozoic glaciogenic deposits of Scotland and Ireland, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 643–648.
- Prave AR, Hoffmann K-H, Hegenberger W & Fallick AE (2011) The Witvlei Group of east-central Namibia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 211–216.
- Preiss WV, Gostin VA, McKirdy DM, Ashley PM, Williams GE & Schmidt PW (2011) The glacial succession of Sturtian age in South Australia: the Yudnamutana Subgroup, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 701–712.
- Retallack GR (2011) Neoproterozoic loess and limits to snowball Earth. *J. Geol. Soc., Lond.* **168**, 289–307.
- Rice AHN, Edwards MB, Hansen TA, Arnaud E & Halverson GP (2011) Glaciogenic rocks of the Neoproterozoic Smalfjord and Mortensnes formations, Vestertana Group, E. Finnmark, Norway, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 593–602.

- Ridgwell A (2011) Evolution of the ocean's "biological pump". *Proc. Natl Acad. Sci. USA* **108** (40), 16485–16486.
- Robertson AL, Roadt J, Halevy I & Kasting JF (2011) Greenhouse warming by nitrous oxide and methane in the Proterozoic Eon. *Geobiology* **9**, 313–320.
- Rocha-Campos AC, Brito Neves BB de, Babinski M, Santos PR dos, Oliveira SMB de & Romano A (2011) Moema laminites: a newly recognized Neoproterozoic (?) glaciogenic unit São Francisco Basin, Brazil, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 535–540.
- Rooney AD, Chew DM & Selby D (2011) Re–Os geochronology of the Neoproterozoic—Cambrian Dalradian Supergroup of Scotland and Ireland: Implications for Neoproterozoic stratigraphy, glaciations and Re–Os systematics. *Precam. Res.* **185**, 202–214.
- Sansjofre P, Ader M, Trindade RIF, Elie M, Lyons J, Cartigny P & Nogueira ACR (2011) A carbon isotope challenge to the snowball Earth. *Nature* **478**, 93–97.
- Sekine Y, Suzuki K, Senda R, Goto KT, Tajika E, Tada R, Goto K, Yamamoto N, Ogawa NO & Maruyoka T (2011) Osmium evidence for synchronicity between a rise in atmospheric oxygen and Palaeoproterozoic deglaciation. *Nat. Commun* **2**, 502, doi: 10.1038/ncomms1507
- Sekine Y, Tajika E, Tada R, Hirai T, Goto KT, Kuwatani T, Goto K, Yamamoto S, Tachibana S, Isozaki Y & Kirschvink JL (2011) Manganese enrichments in the Gowganda Formation of the Huronian Supergroup: A highly oxidized shallow-marine environment after the last Huronian glaciation. *Earth Planet. Sci. Lett.* **307**, 201–210.
- Shen B, Xiao SH, Bao HM, Kaufman AJ, Zhou CM & Yuan X (2011) Carbon, sulfur, and oxygen isotope evidence for a strong depth gradient and oceanic oxidation after the Ediacaran Hankschough glaciation. *Geochim. Cosmochim. Acta* **75**, 1357–1373.
- Shields-Zhou, GA, Deynoux M & Och L (2011) The record of Neoproterozoic glaciation in the Taoudéni Basin, NW Africa, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 163–71.
- Smith MD, Arnaud E, Arnott RWC & Ross GM (2011) The record of Neoproterozoic glaciations in the Windermere Supergroup, southern Canadian Cordillera, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 413–23.
- Stern RJ, Johnson PR, Ali KA & Mukherjee SK (2011) Evidence for early and mid-Cryogenian glaciation in the northern Arabian-Nubian Shield (Egypt, Sudan, and western Arabia), in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 277–284.
- Stodt F, Rice AHN, Björklund L, Bax G, Halverson GP & Pharaoh TC (2011) Evidence of late Neoproterozoic glaciation in the Caledonides of NW Scandinavia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 603–611.
- Stouge S, Christiansen JL, Harper DAT, Houmark-Nielsen M, Kristiansen K, MacNiocaill C & Buchardt-Westergård B (2011) Neoproterozoic (Cryogenian-Ediacaran) deposits in north-east Greenland, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 581–592.
- Sovetov JK (2011) Late Neoproterozoic (Vendian) glaciogenic deposits in the Marnya Formation, Oselok Group, in the foothills of the East Sayan Range, southwestern Siberian Craton, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 317–329.
- Tait J, Delpomdor F, Pr eat A, Tack L, Straathof G & Nkula VK (2011) Neoproterozoic sequences of the West Congo and Lindi/Ubangi Supergroups in the Congo Craton, Central Africa, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 185–194.

- Tziperman E, Halevy I, Johnston DT, Knoll AH & Schrag DP (2011) Biologically induced initiation of Neoproterozoic snowball-Earth events. *Proc. Natl Acad. Sci. USA* **108** (37), 15091–15096.
- Uhlein A, Alvarenga CJS, Dardenne MA & Trompette RR (2011) The glaciogenic Jequitaiá Formation, southeastern Brazil, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 541–546.
- Verdel C, Wernicke BP & Bowring SA (2011) The Shuram and subsequent Ediacaran carbon isotope excursions from southwest Laurentia, and implications for environmental stability during the metazoan radiation. *Geol. Soc. Am. Bull.* **123**, 1539–1559.
- Voigt A, Abbot DS, Pierrehumbert RT & Marotzke J (2011) Initiation of a Marinoan Snowball Earth in a state-of-the-art atmosphere-ocean general circulation model. *Clim. Past* **7**, 1–15.
- Wang XC, Li ZX, Li XH, Li QL, Tang GQ, Zhang QR & Liu Y (2011) Nonglacial origin for low- $\delta^{18}\text{O}$ Neoproterozoic magmas in the South China Block: Evidence from new *in-situ* isotope analyses using SIMS. *Geology* **39**, 735–738.
- West AJ (2011) Snowballs limited by weathering. *Nature Geoscience* **4**, 824–826.
- Williams GE, Gostin VA, McKirdy DM, Preiss WV & Schmidt PW (2011) The Elatina glaciation (late Cryogenian), South Australia, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 713–721.
- Zhang QR, Chu XL & Feng LJ (2011) Neoproterozoic glacial records in the Yangtze region, China, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 357–366.
- Zhu MY & Wang HF (2011) Neoproterozoic glaciogenic diamictites of the Tarim Block, NW China, in Arnaud E, Halverson GP, Shields-Zhou G (eds) *The Geological Record of Neoproterozoic Glaciations*. Geological Society, London, Mem. **36**, pp. 367–378.

2010: 61 4 4 53 10 15 5 23

- Abbot DS & Halevy I (2010) Dust aerosol important for Snowball Earth deglaciation. *J. Clim.* **23**, 4121–4132.
- Abbot DS & Pierrehumbert RT (2010) Mudball: Surface dust and Snowball Earth deglaciation. *J. Geophys. Res.* **115**, D03104, doi: 10.1029/2009JD012007
- Abbot DS, Eisenman I & Pierrehumbert RT (2010) The importance of ice vertical resolution for snowball climate and deglaciation. *J. Clim.* **23**, 6100–6109.
- Abrajevitch A, Van der Voo R (2010) Incompatible Ediacaran paleomagnetic directions suggest an equatorial geomagnetic dipole hypothesis. *Earth Planet Sci Lett* **293**, 164–170.
- Ali KA, Stern RJ, Manton WI, Johnson PR & Mukherjee SK (2010) Neoproterozoic diamictite in the Eastern Desert of Egypt and northern Saudi Arabia: evidence of ~750 Ma glaciation in the Arabian-Nubian Shield? *Intl J. Earth Sci. (Geol. Rundsch.)* **99**, 705–726.
- Bekker A, Slack JF, Planavsky N, Krapez B, Hofmann A, Konhauser KO & Rouzel OJ (2010) Iron formation: The sedimentary product of a complex interplay among mantle, tectonic, oceanic, and biospheric processes. *Econ. Geol.* **105**, 467–508.
- Bindeman IN, Schmitt AK & Evans DAD (2010) Limits of hydrosphere-lithosphere interaction: origin of the lowest known $\delta^{18}\text{O}$ silicate rocks on Earth in the Paleoproterozoic Karelian rift. *Geology* **38**, 631–634.
- Blank CE & Sánchez-Baracaldo P, (2010) Timing of morphological and ecological innovations in the cyanobacteria—a key to understanding the rise in atmospheric oxygen. *Geobiology* **8**, 1–23.
- Carney JN, Jordan CJ, Thomas CW, Condon DJ, Kemp SJ & Duodo JA (2010) Lithostratigraphy, sedimentation and evolution of the Volta Basin in Ghana. *Precam. Res.* **183**, 701–724.
- Cavalier-Smith T (2010) Deep phylogeny, ancestral groups and the four ages of life. *Philosophical Trans. R. Soc., Lond., Ser. B* **365**, 111–132.
- Cooper BJ (2010) 'Snowball Earth': The early contribution from South Australia. *Earth Sci. Hist.* **29**, 121–145.

- Dadic R, Light B & Warren SG (2010) Migration of air bubbles in ice under a temperature gradient, with application to "Snowball Earth". *J. Geophys. Res.* **115**, D18125, doi:10.1029/2010JD014148
- Dobretsov NL (2010) On the early evolutionary stage of the geosphere and biosphere and the problem of early glaciations. *Paleontol. J.* **44**, 827–838.
- Eyles CH & Eyles N (2010) Glacial deposits, in James NP & Dalrymple RW (eds) Geological Association of Canada, Facies models **4**, pp. 73–104.
- Feng LJ, Chu XL., Huang J, Zhang QR & Chang H-J (2010) Reconstruction of paleo-redox conditions and early sulfur cycling during deposition of the Cryogenian Datangpo Formation in South China. *Gondwana Res.* **18**, 632–637.
- Font E, Nédélec A, Trindade RIF & Moreau C (2010) Fast or slow melting of the Marinoan snowball Earth? The cap dolostone record. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **295**, 215–225.
- Gostin VA, McKirdy DM, Webster LJ & Williams GE (2010) Ediacaran ice-rafting and coeval asteroid impact, South Australia: insight into the terminal Proterozoic environment. *Austral. J. Earth Sci.* **57**, 859–869.
- Halverson GP, Wade BP, Hurtgen MT & Barovich KM (2010) Neoproterozoic chemostratigraphy. *Precam. Res.* **182**, 239–412.
- Hebert GL, Kaufman AJ, Penniston-Dorland SC & Martin AJ (2010) Radiometric and stratigraphic constraints on terminal Ediacaran (post-Gaskiers) glaciation and metazoan evolution. *Precam. Res.* **182**, 402–412.
- Hoffman PF & Macdonald FA (2010) Sheet-crack cements and early regression in Marinoan (635 Ma) cap dolostones: Regional benchmarks of vanishing ice-sheets? *Earth Planet. Sci. Lett.* **300**, 374–384.
- Jiang GQ, Wang X, Shi X, Zhang SH, Xiao SH & Dong J (2010) Organic carbon isotope constraints on the dissolved organic carbon (DOC) reservoir at the Cryogenian-Ediacaran transition. *Earth Planet. Sci. Lett.* **299**, 159–168.
- Jungblut AD, Lovejoy C & Vincent WF (2010) Global distribution of cyanobacterial ecotypes in the cold biosphere. *SME J.* **4**, 191–202.
- Kasemann SA, Prave AR, Fallick AE, Hawkesworth CJ & Hoffmann K-H (2010) Neoproterozoic ice ages, boron isotopes, and ocean acidification: Implications for a snowball Earth. *Geology* **38**, 775–778.
- Kheraskova TN, Bush VA, Didenko AN, Samygin SG (2010) Breakup of Rodinia and early stages of evolution of the Paleasian Ocean. *Geotectonics* **44**, 3–24.
- Lacis AA, Schmidt GA, Rind D & Ruedy RA (2010) Atmospheric CO₂: principal control knob governing Earth's temperature. *Science* **330**, 356–359.
- Le Hir G, Donnadieu Y, Krinner G & Ramstein G (2010) Toward the snowball earth deglaciation. *Clim. Dyn.* **35**, 285–297.
- Lucarini V, Fraedrich K & Lunkeit F (2010) Thermodynamic analysis of snowball Earth hysteresis experiment: Efficiency, entropy production and irreversibility. *Quart. J. R. Meteorol. Soc.* **136**, 2–11.
- Liu YG & Peltier WR (2010) A carbon cycle coupled climate model of Neoproterozoic glaciation: Influence of continental configuration on the formation of a "soft snowball". *J. Geophys. Res.* **115**, D17111, doi:10.1029/2009JD013082
- Macdonald FA, Cohen PA, Dudás FÖ & Schrag DP (2010) Early Neoproterozoic siliceous scale microfossils in the Lower Tindir Group of Alaska and the Yukon Territory. *Geology* **38**, 143–146.
- Macdonald FA, Schmitz MD, Crowley JL, Roots CF, Jones DS, Maloof AC, Strauss JV, Cohen PA, Johnston DT & Schrag DP (2010) Calibrating the Cryogenian. *Science* **327**, 1241–1243.
- Macdonald FA, Strauss JV, Rose CV, Dudás FÖ & Schrag DP (2010) Stratigraphy of the Port Nolloth Group of Namibia and South Africa and implications for the age of Neoproterozoic iron formations. *Am. J. Sci.* **310**, 862–888.

- Mahan KH, Wernicke BP & Jercinovic MJ (2010) Th-U-total Pb geochronology of authigenic monazite in the Adelaide rift complex, South Australia, and implications for the age of the type Sturtian and Marinoan glacial deposits. *Earth and Planetary Science Letters* **289**, 78–86.
- Papineau D (2010) Global biogeochemical changes at both ends of the Proterozoic: Insights from phosphorites. *Astrobiology* **10**, 165–181.
- Passchier S & Erukanure E (2010) Palaeoenvironmental and weathering regime of the Neoproterozoic Quantum ‘Tillite’, Boston Basin: no evidence of a snowball Earth. *Sedimentology* **57**, 1526–1544.
- Pazos PJ & Sánchez Bettucci L (2010) Reply to discussion “The Neoproterozoic glacial record in the Río de la Plata Craton: a critical reappraisal”. *J. Geol. Soc., Lond.* **167**, 223.
- Pecoits E, Aubert NR, Gingras MK & Konhauser KO (2010) Discussion on “The Neoproterozoic glacial record in the Río de la Plata Craton: a critical reappraisal”. *J. Geol. Soc., Lond.* **167**, 221–222.
- Pierrehumbert RT (2010) *Principles of Planetary Climate*. Cambridge University Press, New York, 652 p.
- Planavsky NJ, Rouxel OJ, Bekker A, Lalonde SV, Konhauser KO, Reinhard CT & Lyons TW (2010) The evolution of the marine phosphate reservoir. *Nature* **467**, 1088–1090.
- Pokrovsky BG, Chumakov NM, Melezhik VA & Bujakaite MI (2010) Geochemical properties of Neoproterozoic “cap dolomites” in the Patom paleobasin and problems with their genesis. *Lithol. Mineral Resources* **45**, 577–592.
- Praekelt HE, Germs GJB & Kennedy JH (2010) Late Ediacaran glaciation in southern Africa and its glacioeustatic record: A reply to Zimmermann’s Comments on Praekelt, Germ and Kennedy (2008). *S. Afr. J. Geol.* **113**, 135–139.
- Pruss SB, Bosak T, Macdonald FA, McLane M & Hoffman PF (2010) Microbial facies in a Sturtian cap carbonate, the Rasthof Formation, Otavi Group, northern Namibia. *Precam. Res.* **181**, 187–108.
- Rodrigues JB, Pimental MM, Dardenne MA & Armstrong RA (2010) Age, provenance and tectonic setting of the Canastra and Iblá groups (Brasilia Belt, Brazil): Implications for the age of a Neoproterozoic glacial event in central Brazil. *J. S. Am. Earth Sci.* **29**, 512–521.
- Roe GH & Baker MB (2010) Notes on a catastrophe: a feedback analysis of Snowball Earth. *J. Clim.* **23**, 4694–4703.
- Rose CV & Maloof AC (2010) Testing models for post-glacial ‘dap dolostone’ deposition: Nuccaleena Formation, South Australia. *Earth Planet. Sci. Lett.* **296**, 165–180.
- Sawaki Y, Kawai T, Shibuya T, Tahata M, Omori S, Komiya T, Yoshida N, Hirata T, Ohno T, Windley BF & Maruyama S (2010) ⁸⁶Sr/⁸⁷Sr chemostratigraphy of Neoproterozoic Dalradian carbonates below the Port Askaig glacial formation, Scotland. *Precam. Res.* **179**, 150–164.
- Sawaki Y, Ohno T, Tahata M, Komiya T, Hirata T, Maruyama S, Windley BF, Han J, Shu D & Li Y (2010) The Ediacaran radiogenic Sr isotope excursion in the Doushantuo Formation in the three Gorges area, South China. *Precam. Res.* **176**, 46–64.
- Sekine Y, Tajika E, Ohkouchi N, Ogawa NO, Goto K, Tada R, Yamamoto S & Kirschvink JL (2010) Anomalous negative excursion of carbon isotope in organic carbon after the last Paleoproterozoic glaciation in North America. *Geophys. Geochem. Geosys.* **11**(8), doi: 10.1029/2010GC003210
- Shen B, Xiao SH, Zhou CM, Kaufman AJ & Yuan X (2010) Carbon and sulfur isotope chemostratigraphy of the Neoproterozoic Quanji Group of the Chaidam Basin, NW China: basin stratification in the aftermath of an Ediacaran glaciation postdating the Shuram event? *Precam. Res.* **177**, 241–252.
- Sial AN, Gaucher C, Silva Filho MA da, Ferreira VP, Pimental MM, Lacerda LD, Silva Filhop EV & Cezario W (2010) C-, Sr-isotope and Hg chemostratigraphy of Neoproterozoic cap carbonates of the Sergipano Belt, northeastern Brazil. *Precam. Res.* **182**, 351–372.

- Silva-Tamayo JC, Nägler TF, Sial AN, Nogueira A, Kyser K, Riccomini C, James NP, Narbonne GM & Villa IM (2010a) Global perturbations of the marine Ca isotopic composition in the aftermath of the Marinoan global glaciation. *Precam. Res.* **182**, 373–381.
- Silva-Tamayo JC, Nägler TF, Villa IM, Kyser K, Sial AN, Narbonne GM & James NP (2010b) Global Ca isotope variations in c. 0.7 Ga old post-glacial carbonate successions. *Terra Nova* **22**, 188–194.
- Swanson-Hysell NL, Rose CV, Calmet CC, Halverson GP, Hurtgen MT & Maloof AC (2010) Cryogenian glaciation and the onset of carbon-isotope decoupling. *Science* **328**, 608–611.
- Tosca NJ, Johnston DT, Mushegian A, Rothman DH, Summons RE, Knoll AH (2010) Clay mineralogy, organic carbon burial, and redox evolution in Proterozoic oceans. *Geochim. Cosmochim. Acta* **74**, 1579–1592.
- Tsikos H, Matthews A, Erel Y, Moore JM (2010) Iron isotopes constrain biogeochemical redox cycling of iron and manganese in a Palaeoproterozoic stratified basin. *Earth Planetary Sci. Lett.* **298**, 125–134.
- Voigt A & Marotzke J (2010) The transition from the present-day climate to a modern Snowball Earth. *Clim. Dyn.* **35**, 887–905.
- Wang X, Hu S, Gan L, Wiens M & Müller WEG (2010) Sponges (Porifera) as living metazoan witnesses from the Neoproterozoic: biomineralization and the concept of their evolutionary success. *Terra Nova* **22**, 1–11.
- Young GM (2010) Precambrian and Phanerozoic postglacial processes. *Geology* **12**, 1147–1148.
- Zhao YY & Zheng YF. (2010) Stable isotope evidence for involvement of deglacial meltwater in Ediacaran carbonates in South China. *Chem. Geol.* **271**, 86–100.
- Zhao YY & Zheng YF (2010) Record and time of Neoproterozoic glaciations on Earth. *Acta Petrologica Sinica* **27**, 545–565.
- Zhou CM, Bao, HM, Peng Y & Yuan X (2010) Timing of deposition of ^{17}O -depleted barite at the Nantuo glacial meltdown in South China. *Geology* **38**, 903–906.
- Zimmermann U (2010). Correlation of Neoproterozoic successions by any means? – Comments on interpretations made by Praekelt *et al.* (2008). *S. Afr. J. Geol.* **113**, 130–134.

2009: 57 4 2 51 5 8 11 27

- Alvarenga CJS De, Boggiani PC, Babinki M, Dardenne MA, Figueiredo M, Santos RV & Dantas EL (2009) The Amazonian paleocontinent, in Gaucher C, Sial AN, Frimmel HE & Halverson GP (eds) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, pp. 15–28.
- Bao H, Fairchild IJ, Wynn PM & Spötl C (2009) Stretching the envelope of past surface environments: Neoproterozoic glacial lakes from Svalbard. *Science* **323**, 119–122.
- Bechstädt T, Jäger H, Spence G & Werner G (2009) Late Cryogenian (Neoproterozoic) glacial and post-glacial successions at the southern margin of the Congo Craton, northern Namibia: facies, paleogeography and hydrocarbon perspective, in Craig J, Thurow J, Thusu B, Whitham A & Abutarruma Y (eds) *Global Neoproterozoic Petroleum Systems: The Emerging Potential in North Africa*. Geological Society, London, Sp. Pap. 326, pp. 255–287.
- Blank CE & Sánchez-Baracaldo P (2009) Timing of morphological and ecological innovations in the cyanobacteria—a key to understanding the rise in atmospheric oxygen. *Geobiology* **7**, 1–23.
- Brocks JJ & Butterfield NJ (2009) Early animals out in the cold. *Nature* **457**, 672–673.
- Cavalier-Smith T (2009) Deep phylogeny, ancestral groups and the four stages of life. *Phil. Trans. R. Soc., Ser. B* **365**, 111–132.
- Cavalier-Smith T (2009) Predation and eukaryotic cell origins: A coevolutionary perspective. *The Intl J. Biochem. & Cell Biol.* **41**, 307–322.
- Chumakov NM (2009) The Baykonurian glaciohorizon of the late Vendian. *Stratigraphy and Geological Correlation* **17**, 373–381.

- Chumakov NM (2009) Neoproterozoic glacial events in Eurasia, in Gaucher C, Sial AN, Frimmel HE & Halverson GP (eds) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, pp. 389–403.
- Cohen PA, Knoll AH & Kodner RB (2009) Large spinose microfossils in Ediacaran rocks as resting stages of early animals. *Proc. Natl Acad. Sci. USA* **106**(16), 6519–6524.
- Corsetti FA (2009) Extinction before the snowball. *Nat. Geosci.* **2**, 386–387.
- Craig J, Thurow J, Whitham A & Abutarruma Y (2009) *Global Neoproterozoic Petroleum Systems: the Emerging Potential in North Africa*, in Craig J, Thurow, J, Thusu B, Whitham A & Abutarruma Y (eds) *Global Neoproterozoic Petroleum Systems: The Emerging Potential in North Africa*. Geological Society, London, Sp. Pap. **326**, pp. 1–25.
- Dantas EL, Alvarenga CJS de, Santos RV & Pimental MM (2009) Using Nd isotopes to understand the provenance of sedimentary rocks from a continental margin to a foreland basin in the Neoproterozoic Paraguay Belt, central Brazil. *Precam. Res.* **170**, 1–12.
- Figueiredo FT, Almeida RP de, Tohver E, Babinski M, Liu D & Fanning CM (2009) Neoproterozoic glacial dynamics revealed by provenance of diamictites of the Bebedouro Formation, São Francisco craton, central eastern Brazil. *Terra Nova* **21**, 375–385.
- Gaucher C & Poiré D (2009) Palaeoclimatic events, in Gaucher C, Sial AN, Frimmel HE & Halverson GP (eds) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, pp. 123–130.
- Gaucher C, Sial AN, Frimmel HE & Halverson GP, eds (2009) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, 466 p.
- Giddings JA & Wallace MW (2009) Sedimentology and C-isotope geochemistry of the 'Sturtian' cap carbonate, South Australia. *Sed. Geol.* **223**, 35–50.
- Goldblatt C, Claire MW, Lenton TM, Matthews AJ, Watson AJ & Zahnle KJ (2009) Nitrogen-enhanced greenhouse warming on early Earth. *Nat. Geosci.* **2**, 891–896.
- Guo Q, Strauss H, Kaufman AJ, Schröder S, Gutzmer J, Wing B, Baker MA, Bekker A, Jin Q, Kim S-T & Farquhar J (2009) Reconstructing Earth's surface oxidation across the Archean-Proterozoic transition. *Geology* **37**, 399–402.
- Halevy I, Pierrehumbert RT & Schrag DP (2009) Radiative transfer in CO₂-rich paleoatmospheres. *J. Geophys. Res.* **114**, D1812, doi:10.1029/2009JD011915
- Hara K 2009. On the possible reversal of an Earth-scale top. *J. Technic. Phys.* **50**, 375–385.
- Halverson GP, Hurtgen MT, Porter SM & Collins AS (2009) Neoproterozoic-Cambrian biogeochemical evolution, in Gaucher C, Sial AN, Frimmel HE & Halverson GP (eds) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, pp. 351–365.
- Higgins JA, Fischer WW & Schrag DP (2009) Oxygenation of the ocean and sediments: Consequences for the seafloor carbonate factory. *Earth Planet. Sci. Lett.* **284**, 25–33.
- Hoffman PF (2009) Pan-glacial—a third state in the climate system. *Geology Today* **25**, 107–114.
- Hoffman PF & Li ZX (2009) A palaeogeographic context for Neoproterozoic glaciation. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **277**, 158–172.
- Hoffman PF, Calver CR & Halverson GP (2009) Cottons Breccia of King Island, Tasmania: glacial or non-glacial, Cryogenian or Ediacaran? *Precam. Res.* **172**, 311–322.
- Huybers P & Langmuir C (2009) Feedback between deglaciation, volcanism, and atmospheric CO₂. *Earth Planet. Sci. Lett.* **286**, 479–491.
- Ilyin AV (2009) Neoproterozoic banded iron formations. *Lithology and Mineral Resources* **44**, 78–86.
- Johnston DT, Wolfe-Simon F, Pearson A & Knoll AH (2009) Anoxygenic photosynthesis modulated Proterozoic oxygen and sustained Earth's middle age. *Proc. Natl Acad. Sci. USA* **106**, 16925–16929.

- Kaufman AJ, Sial AN, Frimmel HE & Misi A (2009) Neoproterozoic to Cambrian palaeoclimatic events in southwestern Gondwana, in Gaucher C, Sial AN, Frimmel HE & Halverson GP (eds) *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on South Western Gondwana*. Elsevier, Amsterdam, pp. 369–388.
- Kendall B, Creaser RA, Calver CR, Raub TD & Evans DAD (2009) Correlation of Sturtian diamictite successions in southern Australia and northwestern Tasmania by Re–Os black shale geochronology and the ambiguity of “Sturtian”-type diamictite—cap carbonate pairs as chronostratigraphic markers. *Precam. Res.* **172**, 301–310.
- Le Heron DP, Craig J & Etienne JL (2009) Ancient glaciations and hydrocarbon accumulations in North Africa and the Middle East. *Earth-Sci. Rev.* **93**, 47–76.
- Le Hir G, Donnadieu Y, Godd ris Y, Pierrehumbert RT, Halverson GP, Macouin M, N d lic A & Ramstein G (2009) The snowball Earth aftermath: Exploring the limits of continental weathering processes. *Earth Planet. Sci. Lett.* **277**, 453–463.
- Light B, Brandt RE & Warren SG (2009) Hydrohalite in cold sea ice: Laboratory observations of single crystals, surface accumulations, and migration rates under a temperature gradient, with application to “Snowball Earth”. *J. Geophys. Res.* **114**, C07018, doi:10.1029/2008JC005211
- Love GD, Grosjean E, Stalvies C, Fike DA, Grotzinger JP, Bradley AS, Kelly AE, Bhatia M, Meredith W, Snape CE, Bowring SA, Condon DJ & Summons RE (2009) Fossil steroids record the appearance of *Demospongiae* during the Cryogenian period. *Nature* **457**, 718–722.
- Macdonald FA, Jones DS & Schrag DP (2009) Stratigraphic and tectonic implications of a newly discovered glacial diamictite-cap carbonate couplet in southwestern Mongolia. *Geology* **37**, 123–126.
- Macdonald FA, McClelland WC, Schrag DP & Macdonald WP (2009) Neoproterozoic glaciation on a carbonate platform margin in Arctic Alaska and the origin of the North Slope subterranean. *Geol. Soc. Am. Bull.* **121**, 448–473.
- McFadden KA, Xiao SH, Zhou CM & Kowalewski M (2009) Quantitative evaluation of the biostratigraphic distribution of acanthomorphic acritarchs in the Ediacaran Doushantuo Formation in the Yangtze Gorges area, South China. *Precam. Res.* **173**, 170–190.
- Melezhik VA, Pokrovsky BG, Fallick AE, Kuznetsov AB & Bujakaite MI (2009) Constraints on ⁸⁷Sr/⁸⁶Sr of Late Ediacaran seawater: insight from Siberian high-Sr limestones. *J. Geol. Soc., Lond.* **166**, 183–191.
- Mikucki JA, Pearson A, Johnston DT, Turchyn AV, Farquhar J, Schrag DP, Anbar AD, Prisco JC & Lee PA (2009) A contemporary microbially maintained subglacial ferrous “ocean”. *Science* **324**, 397–400.
- Miller NR, Stern RJ, Avigad D, Beyth M & Schilman B (2009) Cryogenian slate-carbonate sequences of the Tambien Group, Northern Ethiopia (I): Pre-“Sturtian” chemostratigraphy and regional correlations. *Precam. Res.* **170**, 129–156.
- Muller A (2009) Animal emergence during Snowball Earths by thermosynthesis in submarine hydrothermal vents. *Nature Prec.* **4**, doi.org/10.1038/npre.2009.3333.1
- Nagy RM, Porter SM, Dehler CM & Shen YN (2009) Biotic turnover driven by eutrophication before the Sturtian low-latitude glaciation. *Nat. Geosci.* **2**, 415–418.
- Neuweiler F, Turner EC & Burdige DJ (2009) Early Neoproterozoic origin of the metazoan clade recorded in carbonate rock texture. *Geology* **37**, 475–478.
- Prave AR, Fallick AE, Thomas CW & Graham CM (2009) A composite C-isotopic profile for the Neoproterozoic Dalradian Supergroup of Scotland and Ireland. *J. Geol. Soc., Lond.* **166**, 1–13.
- Prave AR, Strachan RA & Fallick AE (2009) Global C cycle perturbations recorded in marbles: a record of Neoproterozoic Earth history within the Dalradian succession of the Shetland Islands, Scotland. *J. Geol. Soc., Lond.* **166**, 129–135.
- Rose BEJ & Marshall J (2009) Ocean heat transport, sea ice, and multiple climate states: insights from energy balance models. *J. Atm. Sci.* **66**, 2828–2843.

- Scotese CR (2009) Late Proterozoic plate tectonics and palaeogeography: a tale of two supercontinents, Rodinia and Pannotia, in Craig J, Thurow, J, Thusu, B, Whitham A & Abutarruma Y (eds) *Global Neoproterozoic Petroleum Systems: The Emerging Potential in North Africa*. Geological Society, London, Sp. Pap. 326, pp. 67–83.
- Schmidt PW, Williams GE & McWilliams MO (2009) Palaeomagnetism and magnetic anisotropy of late Neoproterozoic strata, South Australia: Implications for the palaeolatitude of late Cryogenian glaciation, cap carbonate and the Ediacaran System. *Precam. Res.* **174**, 35–52.
- Smith AG (2009) Neoproterozoic timescales and stratigraphy, in Craig J, Thurow J, Thusu B, Whitham A & Abutarruma Y (eds) *Global Neoproterozoic Petroleum Systems: The Emerging Potential in North Africa*. Geological Society, London, Sp. Pap. 326, pp. 27–54.
- Ueno Y, Johnson MS, Danielache SO, Pandey A, Yoshida N (2009) Geological sulfur isotopes indicate elevated OCS in the Archean atmosphere, solving the faint young sun paradox. *Proc. Natl Acad. Sci. USA* **106**, 14784–14789.
- Vorob'eva NG, Sergeev VN & Knoll AH (2009) Neoproterozoic microfossils from the margin of the East European Platform and the search for a biostratigraphic model of lower Ediacaran rocks. *Precam. Res.* **173**, 163–169.
- Wendorff M & Key RM (2009) The relevance of the sedimentation history of the *Grand Conglomerat* Formation (Central Africa) to the interpretation of the climate during a major Cryogenian glacial event. *Precam. Res.* **172**, 127–142.
- Xu B, Xiao SH, Zou H, Chen Y, Li ZX, Song B, Liu D, Zhou CM & Yuan X (2009) SHRIMP zircon U–Pb age constraints on Neoproterozoic Quruqtagh diamictites in NW China. *Precam. Res.* **168**, 247–258.
- Young GM (2009) Snowball Earth, in Gornitz V (ed.) *Encyclopedia of Paleoclimate and Ancient Environments*, Springer, Encyclopedia of Earth Sciences Series, pp. 907–910.
- Zhang QR, Chu XL & Feng LJ (2009) Discussion on the Neoproterozoic glaciations in the South China Block and their related paleolatitudes. *Chinese Sci. Bull.* **54**, 1797–1800.
- Zhao YY, Zheng YF & Chen F (2009) Trace element and strontium isotope constraints on sedimentary environment of Ediacaran carbonates in southern Anhui, South China. *Chem. Geol.* **265**, 345–362.
- 2008: 62 4 3 54 5 8 6 36**
- Allen PA & Etienne JL (2008) Sedimentary challenge to Snowball Earth. *Nat. Geosci.* **1**, 817–825.
- Alvarenga CJS de, Dardenne MA, Santos RV, Brod ER, Gioia SMCL, Sial, AN, Dantas EL & Ferreira VP (2008) Isotope stratigraphy of Neoproterozoic cap carbonates in the Araras Group, Brazil. *Gondwana Res.* **13**, 469–479.
- Arnaud E (2008) Deformation in the Neoproterozoic Smalfjord Formation, northern Norway: an indicator of glacial depositional conditions? *Sedimentology* **55**, 335–356.
- Azmi RJ, Joshi D, Tiwari BN, Joshi MN & Srivastava SS (2008) A synoptic view on the current geo- and biochronological ages of the Vindhyan Supergroup, central India. *Himalayan Geol.* **29**(2), 177–191.
- Bao HM, Lyons JR & Zhou CM (2008) Triple oxygen isotope evidence for elevated CO₂ levels after a Neoproterozoic glaciation. *Nature* **452**, 504–506.
- Brito Neves BB & Pedreira da Silva AJ de (2008) Diamictos e “cap dolomites” Sturtianos Sobre o Grupo Jacobona – Araras, Norte de Campo Formoso – Bahia. *Revista do Instituto de Geociências – USP* **8**(2), 11–27.
- Canfield DE, Poulton SW, Knoll AH, Narbonne GM, Ross G, Goldberg T & Strauss H (2008) Ferruginous conditions dominated later Neoproterozoic deep-water chemistry. *Science* **321**, 949–952.
- Clifford TN (2008) The geology of the Neoproterozoic Swakob-Otavi transition zone in the Outjo District, northern Damara Orogen, Namibia. *S. Afr. J. Geol.* **111**, 117–140, 3 maps.

- Chumakov NM (2008) A problem of total glaciations on the Earth in the Late Precambrian. *Stratigraphy and Geological Correlation* **16**, 107–119.
- Corkeron M (2008) Deposition and palaeogeography of a glacial Neoproterozoic succession in the east Kimberley, Australia. *Sed. Geol.* **204**, 61–82.
- Costas E, Flores-Moya A & López-Roads V (2008) Rapid adaptation of phytoplankters to geothermal waters is achieved by single mutations: Were extreme environments 'Noah's Arks' for photosynthesizers during the Neoproterozoic 'snowball Earth'? *New Phytologist* **180**(4), 922–932.
- Direen NG & Jago, JB (2008) The Cottons Breccia (Ediacaran) and its tectonostratigraphic context within the Grassy Group, King Island, Australia: a rift-related gravity slump deposit. *Precam. Res.* **165**, 1–14.
- Domagal-Goldman SD, Kasting JF, Johnston DT & Farquhar J (2008) Organic haze, glaciations and multiple sulfur isotopes in the mid-Archean era. *Earth Planet. Sci. Lett.* **269**, 29–40.
- Drury DJ (2008) Brian Harland and the Neoproterozoic 'Snowball Earth' concept, in Hambrey M, Christofferson P, Glasser N & Hubbard B (eds) *Glacial Sedimentary Processes and Products*. Blackwell, New York, pp. xi–xiv.
- Eyles N (2008) Glacio-epochs and the supercontinent cycle after ~3.0 Ga: tectonic boundary conditions for glaciation. *Palaeogeography, Palaeoclimatology, Palaeoecology* **258**, 89–129.
- Falkowski PG, Fenchel T & Delong EF (2008) The microbial engines that drive Earth's biogeochemical cycles. *Science* **320**, 1034–1039.
- Fanning CM & Link PK (2008) Age constraints for the Sturtian glaciation: data from the Adelaide Geosyncline, South Australia and Pocatello Formation, Idaho, USA. *Geological Society of Australia, Selwyn Symposium 2008, Abstracts* **91**, pp. 57–62.
- Fox TJ, Domack EW & Hoffman PF (2008) Clast provenance and geochemistry of the Ghaub Formation, northern Namibia. Geological Society of America, Abstr. Progr. **40**(2), 2, 8–3.
- Frimmel HE (2008) An evaporitic facies in Neoproterozoic post-glacial carbonates: The Gifberg Group, South Africa. *Gondwana Res.* **13**, 453–479.
- Gaucher C, Blanco G, Chiglino L, Poire D & Germs GJB (2008) Acritarchs of Las Ventanas Formation (Ediacaran, Uruguay): Implications for the timing of coeval rifting and glacial events in western Gondwana. *Gondwana Res.* **13**, 488–501.
- Haines PW, Hocking RM, Grey K & Stevens MK (2008) Vines 1 revisited: are older Neoproterozoic glacial deposits preserved in Western Australia? *Austral. J. Earth Sci.* **55**, 397–406.
- Hoffman PF (2008) Snowball Earth: status and new developments. *GEO (IGC Special Climate Issue)* **11**, 44–46.
- Hoffman PF & Halverson GP (2008) Otavi Group of the western Northern Platform, the Eastern Kaoko Zone and the western Northern Margin Zone, in Miller RMCG (ed.) *The Geology of Namibia, vol. 2. Handbook of the Geological Survey of Namibia*, Windhoek, pp. 13.69–13.136.
- Hoffman PF, Crowley JW, Johnston, DT, Jones DS & Schrag DP (2008) Snowball prevention questioned. *Nature* **456**, E7.
- Janikian L, Almeida RP de, Trindade RIF, Romalino A, Frago-Cesar ARS, D'Agrella-Filho MS, Dantas EL & Tohver E (2008) The continental record of Ediacaran successions in southern Brasil and their global implications. *Terra Nova* **20**, 259–266.
- Jiang GQ, Zhang S, Shi X, Wang X (2008) Chemocline instability and isotope variations of the Ediacaran Doushantuo basin in South China. *Science in China, Ser. D-Earth Sci.* **51**, 1560–1569.
- Kawai T, Windley BF, Terabayashi M, Yamamoto H, Isozaki Y & Maruyama S (2008) Neoproterozoic glaciation in the mid-oceanic realm: An example from hemi-pelagic mudstones on Llanddwyn Island, Anglesey, UK. *Gondwana Res.* **14**, 105–114.
- Kennedy M, Mrofka D & von der Borch C (2008) Snowball Earth termination by destabilization of equatorial permafrost methane clathrate. *Nature* **453**, 642–645.

- Kirschvink JL & Kopp RE (2008) Palaeoproterozoic ice houses and the evolution of oxygen-mediating enzymes: the case for a late origin of photosystem II. *Phil. Trans. R. Soc., Lond., Ser. B*, **363**, 2755-2765, 1-11.
- Kou XW, Wang Y, Wei W, He JY & Xu B (2008) The Neoproterozoic Altungol and Huangyanggou formations in Tarim plate: recognized newly glaciation and interglaciation? *Acta Petrologica Sinica* **24**(12), 817-825.
- Le Hir G, Godd ris Y, Donnadi u Y & Ramstein G (2008) A geochemical modelling study of the evolution of the chemical composition of seawater linked to a "snowball" glaciation. *Biogeosciences* **5**, 1-15.
- Le Hir G, Ramstein G, Donnadi u Y & Godd ris, Y (2008) Scenario for the evolution of atmospheric $p\text{CO}_2$ during a snowball Earth. *Geology* **36**, 47-50.
- Li ZX, Bogdanova SV, Collins AS, Davidson A, De Waele B, Ernst RE, Fitzsimons ICW, Fuck RA, Gladkochub, DP, Jacobs J, Karlstrom KE, Lu S, Natapov LM, Pease V, Pisarevsky SA, Thrane K & Vernikovskiy V (2008) Assembly, configuration, and break-up history of Rodinia: A synthesis. *Precam. Res.* **160**, 179-210.
- Ling WL, Ren BF, Duan RC, Liu XM, Mao XW, Peng LH, Liu ZX, Cheng JP & Yang HM (2008) Timing of Wudangshan, Yaolinghe volcanic sequences and mafic sills in South Qinling: U-Pb zircon geochronology and tectonic implication. *Chinese Sci. Bull.* **53**(14), 2192-2199.
- Loon AJ van (2008) Could 'Snowball Earth' have left thick glaciomarine deposits? *Gondwana Res.* **14**, 73-81.
- Maruyama S & Santosh M (2008a) Snowball Earth to Cambrian explosion. *Gondwana Res.* **14**, 1-4.
- Maruyama S & Santosh M (2008b) Models on Snowball Earth and Cambrian explosion: a synopsis. *Gondwana Res.* **14**, 22-32.
- Meert JG & Lieberman BS (2008) The Neoproterozoic assembly of Gondwana and its relationship to the Ediacaran-Cambrian radiation. *Gondwana Res.* **14**, 5-21.
- Micheels A & Montenari M (2008) A snowball Earth versus slushball Earth: Results from Neoproterozoic climate modeling sensitivity experiments. *Geosphere* **4**, 401-410, doi: 10.1130/GES00098.1
- Miller RMcG (2008) *The Geology of Namibia: Vol. 1, Archaean to Mesoproterozoic; Vol. 2, Neoproterozoic to Lower Palaeozoic; Vol. 3, Palaeozoic to Cenozoic*. Geological Survey of Namibia, Windhoek, 1600 p.
- Moczydlowska M (2008) The Ediacaran microbiota and the survival of Snowball Earth conditions. *Precam. Res.* **167**, 1-15.
- Nisbet EG & Nisbet RER (2008) Methane, oxygen, photosynthesis, rubisco and the regulation of the air through time. *Phil. Tran. R. Soc., Lond., Ser. B* **363**, 2745-2754.
- Ohno T, Komiya T, Ueno Y, Hirata T & Maruyama S (2008) Determination of $^{88}\text{Sr}/^{86}\text{Sr}$ mass-dependent isotopic fractionation and radiogenic isotope variation of $^{87}\text{Sr}/^{86}\text{Sr}$ in the Neoproterozoic Doushantuo Formation. *Gondwana Res.* **14**, 126-133.
- Omori S & Santosh M (2008) Metamorphic decarbonation in the Neoproterozoic and its environmental implication. *Gondwana Res.* **14**, 97-104.
- Pazos PJ, Bettucci LS & Loureiro J (2008) The Neoproterozoic glacial record in the Rio de la Plata Craton: a critical reappraisal, in Pankhurst RJ, Trouw RAJ, Brito Neves BB de & de Wit MJ (eds) *West Gondwana: Pre-Cenozoic Correlations Across the South Atlantic Region*. Geological Society, London Sp. Publ. **294**, pp. 343-364.
- Praekelt HE, Germs GJB & Kennedy JH (2008) A distinct unconformity in the Cango Caves Group of the Neoproterozoic to early Paleozoic Saldania Belt in South Africa: its regional significance. *S. Afr. J. Geol.* **111**, 357-360.
- Raub TD & Kirschvink JL (2008) A Pan-Precambrian link between deglaciation and environmental oxidation, in Cooper AK, Barrett PJ, Stagg H, Storey B, Stump E, Wise W & the 10th ISAES editorial

- team (eds) *Antarctica: A Keystone in a Changing World*. National Academies Press, Washington, DC, Proc. 10th Intl Symp. Antarctic Earth Sciences, pp. 83–90.
- Rieu R & Allen PA (2008) Siliciclastic sedimentation in the interlude between two Neoproterozoic glaciations, Mirbat area, southern Oman: A missing link in the Huqf Supergroup? *GeoArabia* **13**, 45–72.
- Santosh M & Omori S (2008) CO₂ windows from mantle to atmosphere: Models on ultrahigh-temperature metamorphism and speculations on the link with melting of snowball Earth. *Gondwana Res.* **14**, 82–96.
- Schmidt PW & Williams GE (2008) Palaeomagnetism of red beds from the Kimberley Group, Western Australia: implications for the palaeogeography of the 1.8 Ga King Leopold glaciation. *Precam. Res.* **167**, 267–280.
- Shields GA (2008) Marinoan meltdown. *Nat. Geosci.* **1**, 351–363.
- Skotnicki SJ, Hill AC, Walter M & Jenkins R (2008) Stratigraphic relationships of Cryogenian strata disconformably overlying the Bitter Springs Formation, northeastern Amadeus Basin, central Australia. *Precam. Res.* **165**, 243–259.
- Soares JL & Nogueira ACR (2008) Depósitos carbonáticos de Tangará de Serra (MT): uma nova ocorrência de capa carbonática neoproterozoico no sul do Cráton Amazônico. *Revista Brasileira de Geociências* **38**, 715–729.
- Sønderholm M, Frederiksen KS, Smith MP & Tisgaard H (2008) Neoproterozoic basins with glacial deposits of the East Greenland Caledonides, in Higgins AK, Gilotti JA & Smith MP (eds) *The Greenland Caledonides: Evolution of the Northeastern Margin of Laurentia*. Geological Society, London, Mem. 202, pp. 99–136.
- Stern RJ, Avigad D, Miller N & Beyth M (2008) From volcanic winter to snowball Earth: an alternative explanation for Neoproterozoic biosphere stress, in Dilek Y, Furnes H & Muehlenbachs K (eds) *Links Between Geologic Processes, Microbial Activities & Evolution of Life*. Springer, Heidelberg, pp. 313–337.
- Wang J, Jiang G, Xiao S, Li Q & Wei Q (2008) Carbon isotope evidence for widespread methane seeps in the ca 635 Ma Doushantuo cap carbonate in South China. *Geology* **36**, 347–350.
- Wang TG, Li MJ, Wang CJ, Wang GL, Zhang WB, Shi Q & Zhu L (2008) Organic molecular evidence in the late Neoproterozoic tillites for a palaeo-oceanic environment during the snowball Earth era in the Yangtze region, southern China. *Precam. Res.* **162**, 317–326.
- Williams GE (2008) Proterozoic (pre-Ediacaran) glaciation and the high-obliquity, low-latitude ice, strong seasonality (HOLIST) hypothesis: principles and tests. *Earth-Sci. Rev.* **87**, 61–93.
- Williams GE, Gostin VA, McKirdy DM & Preiss WV (2008) The Elatina glaciation, late Cryogenian (Marinoan Epoch), South Australia: Sedimentary facies and palaeoenvironments. *Precam. Res.* **163**, 307–331.
- Xu B, Kou XW, Song B, Wei W & Wang Y (2008) SHRIMP dating of the upper Proterozoic volcanic rocks in the Tarim plate and constraints on the Neoproterozoic glaciation. *Acta Petrologica Sinica* **24**(12), 2857–2862.
- Zhang QR, Li XH, Feng LJ, Huang J, Biao S (2008) A new age constraint on the onset of the Neoproterozoic glaciations in the Yangtze Platform, South China. *J. Geol.* **116**, 423–429.
- Zhang SH, Jiang GQ & Han YG (2008) The age of the Nantuo Formation and Nantuo glaciation in South China. *Terra Nova* **20**, 289–294.
- Zhang SH, Jiang GQ, Dong J, Han Y, Wu H (2008) New SHRIMP U-Pb age from the Wuqiangxi Formation of Banxi Group: Implications for rifting and stratigraphic erosion associated with the early Cryogenian (Sturtian) glaciation in South China. *Science in China, Ser. D–Earth Sci.* **51**, 1330–1339.
- Zheng YF, Gong B, Zhao ZF, Wu YB, Chen FK (2008) Zircon U-Pb age and O isotope evidence for Neoproterozoic low-¹⁸O magmatism during supercontinental rifting in South China: implications for the Snowball Earth event. *Am. J. Sci.* **308**, 484–516.

2007: 71 1 4 66 9 11 6 39

- Allen PA (2007) The Huqf Supergroup of Oman: basin development and context for Neoproterozoic glaciation. *Earth-Sci. Rev.* **84**, 139–185.
- Alvarenga CJS de, Figueiredo MF, Babinki M, Pinho FEC (2007) Glacial diamictites of Serra Azul Formation (Ediacaran, Paraguay belt): Evidence of the Gaskiers glacial event in Brazil. *J. S. Am. Earth Sci.* **23**, 236–241.
- Álvaro JJ, Macouin M, Bauluz B, Clausen S & Ader M (2007) The Ediacaran sedimentary architecture and carbonate productivity in the Atar cliffs, Adrar, Mauritania: palaeoenvironments, chemostratigraphy and diagenesis. *Precam. Res.* **154**, 236–261.
- Avigad D, Stern RJ, Beyth M, Miller N & McWilliams MO (2007) Detrital zircon U–Pb geochronology of Cryogenian diamictites and Lower Paleozoic sandstone in Ethiopia (Tigray): Age constraints on Neoproterozoic glaciation and crustal evolution of the southern Arabian-Nubian Shield. *Precam. Res.* **154**, 88–106.
- Babinski M, Vieira LC & Trindade RIF (2007) Direct dating of the Sete Lagoas cap carbonate (Bambuí Group, Brazil) and implications for the Neoproterozoic glacial events. *Terra Nova* **19**, 401–406.
- Bekker AJ & Kaufman AJ (2007) Oxidative forcing of global climate change: A biogeochemical record across the oldest Paleoproterozoic ice age in North America. *Earth Planet. Sci. Lett.* **258**, 486–499.
- Bowring SA, Grotzinger JP, Condon DJ, Ramezani J & Newall M (2007) Geochronologic constraints on the chronostratigraphic framework of the Neoproterozoic Huqf Supergroup, Sultanate of Oman. *Am. J. Sci.* **307**, 1097–1145.
- Boyle RA, Lenton TM & Williams HTP (2007) Neoproterozoic 'snowball Earth' glaciations and the evolution of altruism. *Geobiology* **5**(4), 337–349.
- Buick R (2007) Did the Proterozoic 'Canfield Ocean' cause a laughing gas greenhouse? *Geobiology* **5**, 97–100.
- Cai ZY, Xiong X, Luo H, Wu D, Sun S, Rao B & Wang S (2007) Forming age of the volcanic rocks of the Yaolinghe Group from Wudaopng Blkock, Southern Qinling Mountain: Constraint from grain-zircon U–Pb dating. *Acta Geologica Sinica* **81**(5) 620–625 (English abstract).
- Canfield DE, Poulton SW & Narbonne GM (2007) Late-Neoproterozoic deep-ocean oxygenation and the rise of animal life. *Science* **315**, 92–95.
- Chew D, Kirkland C, Schaltegger U & Goodhue R (2007) Neoproterozoic glaciation in the Proto-Andes: Tectonic implications and global correlation. *Geology* **35**, 1095–1098.
- Chumakov NM (2007) Climates and climate zonality of the Vendian: geological evidence, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geological Society, London, Sp. Publ. **286**, 15–26.
- Corkeron M (2007) 'Cap carbonates' and Neoproterozoic glacial successions from the Kimberley region, north-west Australia. *Sedimentology* **54**, 871–903.
- Corsetti FA, Stewart JH & Hagadorn JW (2007) Neoproterozoic diamictite-cap carbonate succession and $\delta^{13}\text{C}$ chemostratigraphy from eastern Sonora, Mexico. *Chem. Geol.* **237**, 129–142.
- Dobrzinski N & Bahlburg H (2007) Sedimentology and environmental significance of the Cryogenian successions of the Yangtze platform, South China block. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **254**, 100–122.
- Doney SC & Schimel D (2007) Carbon and climate system coupling on timescales from the Precambrian to the Anthropocene. *Annu. Rev. Environment and Resources*, **32**, doi: 10.1146/annurev.energy.32.041706.124700

- Drewry DJ (2007) Brian Harland and the Neoproterozoic 'Snowball Earth' concept, in Hambrey M, Christofferson P, Glasser N & Hubbard B (eds) *Glacial Sedimentary Processes and Products*. Blackwell, New York, pp. XI–XIV.
- Elie M, Nogueira ACR, Nédélec A, Trindade RIF & Kenig F (2007) Biodiversity collapse and red algal bloom in the aftermath of the Marinoan Snowball Earth. *Terra Nova* **19**, 303–308.
- Étienne JL, Allen PA, Rieu R & Le Guerroué E (2007) Neoproterozoic glaciated basins: A critical review of the 'Snowball Earth' hypothesis by comparison with Phanerozoic glaciations, in Hambrey M, Christofferson P, Glasser N & Hubbard B (eds) *Glacial Sedimentary Processes and Products*. Blackwell, New York, pp. 343–399.
- Eyles CH, Eyles N & Grey K (2007) Palaeoclimate implications from deep drilling of Neoproterozoic strata in the Officer Basin and Adelaide Rift Complex of Australia: a marine record of wet-based glaciers. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **248**, 291–312.
- Eyles N & Januszczak N (2007) Syntectonic subaqueous mass flows of the Neoproterozoic Otavi Group, Namibia: where is the evidence of global glaciation? *Basin Res.* **19**, 179–198.
- Fairchild IJ & Kennedy MJ (2007) Neoproterozoic glaciation in the Earth System. *J. Geol. Soc., Lond.* **164**, 895–921.
- Gaidos E, Dubuc T, Dunford, M, McAndrew P, Padilla-Gamiño, Studer B, Weersing K & Stanley S (2007) The Precambrian emergence of animal life: a geobiological perspective. *Geobiology* **5**(4), 351–373.
- Goddéris Y, Donnadiou Y, Dessert C, Dupré B, Fluteau F, François LM, Meert J, Nédélec A, Ramstein G (2007) Coupled modeling of global carbon cycle and climate in the Neoproterozoic: links between Rodinia breakup and major glaciations. *C. R. Geosci.* **339**, 212–222.
- Halverson GP & Hurtgen MT (2007) Ediacaran growth of the marine sulfate reservoir. *Earth Planet. Sci. Lett.* **263**, 32–44.
- Halverson GP, Dudás FÖ, Maloof AC & Bowring SA (2007) Evolution of the ⁸⁷Sr/⁸⁶Sr composition of Neoproterozoic seawater. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **256**, 103–129.
- Halverson GP, Maloof AC, Schrag DP, Dudás FÖ & Hurtgen M (2007) Stratigraphy and geochemistry of a ca. 800 Ma negative carbon isotope interval in northeastern Svalbard *Chem. Geol.* **237**, 5–27.
- Harland WB (2007) Origins and assessment of snowball Earth hypotheses. *Geol. Mag.* **144**, 633–642.
- Hoffman PF, Halverson GP, Domack EW, Husson JM, Higgins JA & Schrag DP (2007) Are basal Ediacaran (635 Ma) post-glacial "cap dolostones" diachronous? *Earth Planet. Sci. Lett.* **258**, 114–131.
- Ishiwatari M, Nakajima K, Takehiro S & Hayashi Y-Y (2007) Dependence of climate states of gray atmosphere on solar constant: From the runaway greenhouse to the snowball states. *J. Geophys. Res.* **112**, D13120, doi:10.1029/2006JD007368
- Janhunen P, Kaartkallio H, Oksanen I, Lehto K & Lehto H (2007) Biological feedbacks as cause and demise of Neoproterozoic icehouse: astrobiological prospects for faster evolution and importance of cold conditions. *PLoS One* **2**(2) e214. doi:10.1371/journal.pone.0000214
- Katsuta, N, Tojo B, Takano M, Yoshioka H & Kawakami S (2007) Non-destructive method to detect the cycle of lamination in sedimentary rocks: rhythmite sequence in Neoproterozoic Cap carbonates, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geological Society, London, Sp. Publ. **286**, 27–34.
- Kaufman JA, Corsetti FA & Varni FA (2007) The effect of rising oxygen on carbon and sulphur isotope anomalies in the Neoproterozoic Johnnie Formation, Death Valley, USA. *Chem. Geol.* **237**, 47–63
- Le Hir G, Ramstein G, Donnadiou Y & Pierrehumbert RT (2007) Investigating plausible mechanisms to trigger a deglaciation from a hard snowball Earth. *C. R. Geosci.* **339**, 274–287.
- Lewis, J.P., Weaver, A.J. & Eby, M., 2007. Snowball versus slushball Earth: Dynamic versus nondynamic sea ice? *J. Geophys. Res.* **112**, C11014, doi: 10.1029/2006JC004037

- Lorentz NJ & Corsetti FA (2007) Another test for snowball Earth. *Geology* **35**, 383–384.
- Marotzke J & Bozet M (2007) Present-day and ice-covered equilibrium states in a comprehensive climate model. *Geophys. Res. Lett.* **34**, L16704, doi: 10.1029/2006GL028880
- Meert JG, Walderhaug HJ, Torsvik TH & Hendriks BWH (2007) Age and paleomagnetic signature of the Alnø carbonatite complex (NE Sweden): additional controversy for the Neoproterozoic paleoposition of Baltica. *Precam. Res.* **154**(3/4), 159–174.
- Misi A, Kaufman AJ, Veizer J, Powis K, Azmy K, Boggiani PC, Gaucher C, Teixeira JBG, Sanches AL & Iyer SSS (2007) Chemostratigraphy correlation of Neoproterozoic successions in South America. *Chem. Geol.* **237**, 143–167.
- Nédélec A, Affaton P, France-Lanord C, Charrière A & Alvaro J (2007) Sedimentology and chemostratigraphy of the Bwipe Neoproterozoic cap dolostones (Ghana, Volta Basin): a record of microbial activity in a peritidal environment. *C. R. Geosci.* **339**, 223–239.
- Nogueira ACR, Riccomini C, Sial AN, Moura CAV, Trindade RIF & Fairchild TR (2007) Carbon and strontium isotope fluctuations and paleoceanographic changes in the late Neoproterozoic Araras carbonate platform, southern Amazon craton, Brazil. *Chem. Geol.* **237**, 168–190.
- Pacheco FERC, Caxito FA, Souza ME, Bento CC, Pedrosa-Soares A, Lana CdeC (2007) Detrital zircon U–Pb analysis constrain the depositional age and provenance of Cryogenian glacial successions of the Macaúbas Group in the northern Aracuaí orogen, eastern Brazil. *J. S. Am. Earth Sci.* **121**, 104122.
- Pease V, Daly JS, Elming S-A, Kumpulainen R, Moczydlowska M, Puchkov V, Roberts D, Saintot A, Stephenson R (2007) Baltica in the Cryogenian, 850–630 Ma. *Precam. Res.* **160**(1/2), 46–65.
- Pecoits E, Gingras M, Aubert N & Konhauser K (2007) Ediacaran in Uruguay: palaeoclimatic and palaeobiological implications. *Sedimentology* **55**, 689–719.
- Peltier WR, Liu YG & Crowley JW (2007) Snowball Earth prevention by dissolved organic carbon remineralization. *Nature* **450**, 813–818.
- Piacentini T, Boggiani PC, Yamamoto JK, Freitas BT & Campanha GA de C (2007) Formação ferrífera associada à sedimentação glaciogênica de Formação Puga (Marinoano) na Serra Bodoquena, MS. *Revista Brasileira de Geociências* **37**, 530–541.
- Pisarevsky SA, Wingate MTD, Stevens MK & Haines PW (2007) Palaeomagnetic results from the Lanver 1 stratigraphic drillhole, Officer Basin, Western Australia, and implications for Rodinia reconstructions. *Austral. J. Earth Sci.* **54**, 561–572.
- Poidevin J-L (2007) Stratigraphie isotopique de strontium et datation des formations carbonatées et glaciogéniques néoproterozoïques du nord et de l'ouest du craton de Congo. *C. R. Geosci.* **339**, 259–273.
- Raub TD, Evans DAD & Smirnov AV (2007) Siliciclastic prelude to Elatina-Nuccaleena deglaciation: lithostratigraphy and rock magnetism of the base of the Ediacaran System, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geological Society, London, Sp. Publ. **286**, 53–76.
- Rieu R, Allen PA, Cozzi A, Kosler J & Bussy F (2007a) A composite stratigraphy for the Neoproterozoic Huqf Supergroup of Oman: integrating new litho-, chemo- and chronostratigraphic data of the Mirbat area, southern Oman. *J. Geol. Soc., Lond.* **164**, 997–1009.
- Rieu R, Allen PA, Plötze M & Pettke T (2007b) Compositional and mineralogical variations in a Neoproterozoic glacially influenced succession, Mirbat area, south Oman: implications for paleoweathering conditions. *Precam. Res.* **154**, 248–265.
- Rieu R, Allen PA, Plötze M & Pettke T (2007c) Climatic cycles during a Neoproterozoic "snowball" glacial epoch. *Geology* **35**, 299–302.
- Shen B, Xiao SH, Kaufman AJ, Bao HM, Zhou CM & Wang H (2007) Stratification and mixing of a post-glacial Neoproterozoic ocean: Evidence from carbon and sulfur isotopes in a cap dolostone from northwest China. *Earth Planet. Sci. Lett.* **265**(1/2), 209–228.

- Shields GA, Deynoux M, Culver SJ, Brasier MD, Affaton P & Vandamme D (2007) Neoproterozoic glaciomarine and cap dolostone facies of the southwestern Taoudéni Basin (Walidiala Valley, Senegal/Guinea, NW Africa). *C. R. Geosci.* **339**, 186–199.
- Shields GA, Deynoux M, Strauss H, Paquet H & Nahon D (2007) Barite-bearing cap dolostone of the Taoudéni Basin, northwest Africa: sedimentary and isotopic evidence for methane seepage after a Neoproterozoic glaciation. *Precam. Res.* **154**, 209–235.
- Sohl LE, Chandler MA (2007) Reconstructing Neoproterozoic palaeoclimates using a combined data/modeling approach, in Williams M, Haywood AM, Gregory FJ & Schmidt DN (eds) *Deep-time Perspectives on Climate Change: Marrying the Signal from Computer Models and Biological Proxies*. Geological Society, London, Micropalaeontological Society, Sp. Publ. **2**, pp. 61–80.
- Stoeck T, Kasper J, Bunge J, Leslin C, Ilyin V, Epstein S (2007) Protistan diversity in the Arctic: A case of paleoclimate shaping modern biodiversity. *PLoS ONE* **2**(8): e728. doi: 10.1371/journal.pone.0000728
- Strik G, de Wit MJ & Langereis CG (2007) Palaeomagnetism of the Neoarchean Pongola and Ventersdorp Supergroups and an appraisal of the 3.0–1.9 Ga apparent polar wander path of the Kaapvaal Craton, Southern Africa. *Precam. Res.* **153**, 96–115.
- Tewari VC & Sial AN (2007) Neoproterozoic—Early Cambrian isotopic variation and chemostratigraphy of the Lesser Himalaya, India, eastern Gondwana. *Chem. Geol.* **237**, 64–88.
- Tojo B, Katsuta N, Takano M, Kawakami S & Ohno T (2007) Calcite-dolomite cycles in the Neoproterozoic Cap carbonates, Otavi Group, Namibia, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geological Society, London, Sp. Publ. **286**, 103–113.
- Trindade, RIF & Macouin M (2007) Paleolatitude of glacial deposits and paleogeography of Neoproterozoic ice ages. *C. R. Geosci.* **339**, 200–211.
- Vickers-Rich P (2007) Saline giants, cold cradles and global playgrounds of Neoproterozoic Earth: the origin of animalia, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geological Society, London, Sp. Publ. **286**, 447–448.
- Vieira LC, Trindade RIF & Nogueira ACR & Ader M (2007) Identification of a Sturtian cap carbonate in the Neoproterozoic Sete Lagoas carbonate platform, Bambuí Group, Brazil. *C. R. Geosci.* **339**, 240–258.
- Walderhaug HJ, Torsvik TH & Halvorsen E (2007) The Egersund dykes (SW Norway): a robust Early Ediacaran (Vendian) palaeomagnetic pole from Baltica. *Geophys. J. Intl* **168**, 935–948.
- Williams GE, Jenkins JF & Walter MR (2007) No heliotrophism in Neoproterozoic columnar stromatolite growth, Amadeus Basin, central Australia: geophysical implications. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **249**, 80–89.
- Yang C, Ma JY, Sun XY & Cong PY (2007) Phylochronology of early metazoans: combined evidence from molecular and fossil data. *Geol. J.*, doi: 10.1002/gj.1074.
- Yin L, Zhu MY, Knoll AH, Yuan XL, Zhang J & Hu J (2007) Doushantuo embryos preserved inside diapause egg cysts. *Nature* **446**, 661–663.
- Zhan S, Chen Y, Xu B, Wang B & Faure M (2007) Late Neoproterozoic paleomagnetic results from the Sugetbrak Formation of the Aksu area, Tarim basin (NW China) and their implications to paleogeographic reconstructions and the snowball Earth hypothesis. *Precam. Res.* **154**, 143–158.
- Zheng YF, Wu YB, Gong B, Chen RX, Tang J & Zhao ZF (2007) Tectonic driving of Neoproterozoic glaciations: Evidence from extreme oxygen isotope signature of meteoric water in granite. *Earth Planet. Sci. Lett.* **256**, 196–210.
- Zhou CM & Xiao SH (2007) Ediacaran $\delta^{13}\text{C}$ chemostratigraphy. *Chem. Geol.* **237**, 89–108.
- Zhou CM, Xie GW, McFadden K, Xiao SM & Yuan XL (2007) The diversification and extinction of Doushantuo–Pertatataka acritarchs in South China: causes and biostratigraphic significance. *Geol. J.* **42**(3/4), 229–262, doi: 10.1002/gj.1062

- Alene, M., Jenkin, G.R.T., Leng, M.J., & Darbyshire, D.P.F., (2006) The Tambien Group, Ethiopia: an early Cryogenian (ca. 800-735 Ma) Neoproterozoic sequence in the Arabian—Nubian Shield. *Precambrian Research* **147**, 79–99.
- Allen, P. A. & Leather, J. (2006) Post-Marinoan marine siliciclastic sedimentation: The Masirah Bay Formation, Neoproterozoic Huqf Supergroup of Oman. *Precambrian Research* **144** (3-4), 167–198.
- Arnaud, E. & Eyles, C.H., (2006) Neoproterozoic environmental change recorded in the Port Askaig Formation, Scotland: climatic vs tectonic controls. *Sedimentary Geology* **183**, 99–124.
- Azmy, K., Kaufman, A.J., Misi, A., & de Oliveira, T.F., (2006) Isotope stratigraphy of the Lapa Formation, São Francisco Basin, Brazil: Implications for late Neoproterozoic glacial events in South America. *Precambrian Research* **149**, 231–248.
- Baarli, B.G., Levine, R., & Johnson, M.E.J., (2006) The late Neoproterozoic Smalfjord Formation of the Varanger Peninsula in northern Norway: a shallow fjord deposit. *Norwegian Journal of Geology* **86**, 133–150.
- Baker, M.E., (2006) The genetic response to Snowball Earth: role of HSP90 in the Cambrian explosion. *Geobiology* **4**, 11–14.
- Batumike, M. J., Kampunzu, A. B. & Cailteux, J. H. (2006) Petrology and geochemistry of the Neoproterozoic Nguba and Kundelungu Groups, Katangan Supergroup, southeast Congo: Implications for provenance, paleoweathering and geotectonic setting. *Journal of African Earth Sciences*, **44**, 97–115.
- Benn, D.I. & Prave, A.R., (2006) Subglacial and proglacial glacetectonic deformation in the Neoproterozoic Port Askaig Formation, Scotland. *Geomorphology* **75**, 266–280.
- Bestmann, M., Rice, A.H.N., Langenhorst, F., Grasemann, B., & Heidelberg, F., (2006) Subglacial bedrock welding associated with glacial earthquakes. *Journal of the Geological Society, London* **163**, 417–420.
- Bottjer DJ & Clapham ME (2006) Evolutionary paleoecology of Ediacaran benthic marine animals, in Xiao SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 91–114.
- Boyle RA & Lenton TM (2006) Fluctuation in the physical environment as a mechanism for reinforcing evolutionary transitions. *Journal of Theoretical Biology* **242**, 832–843.
- Cavalier-Smith T (2006) Cell evolution and Earth history: stasis and revolution. *Philosophical Trans. R. Soc., Lond., Ser. B* **361**, 969–1006.
- Claire MW, Catling DC & Zahnle KJ (2006) Biogeochemical modelling of the rise in atmospheric oxygen. *Geobiology* **4**, 239–269.
- Coetzee LL, Beukes NJ, Gutzmer J & Kakegawa T (2006) Links of organic carbon cycling and burial to depositional depth gradients and establishment of snowball Earth at 2.3 Ga. Evidence from the Timeball Hill Formation, Transvaal Supergroup, South Africa. *S. Afr. J. Geol.* **109**, 109–122.
- Corsetti FA & Lorentz NJ (2006) On Neoproterozoic cap carbonates as chronostratigraphic markers, in Xiao SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 273–294.
- Corsetti FA, Olcott AN & Bakermans C (2006) The biotic response to Neoproterozoic snowball Earth. *Palaeogeog. Palaeoclimat. Palaeoecol.* **232**, 114–130.
- Deynoux M, Affaton P, Trompette R & Villeneuve M (2006) Pan-African tectonic evolution and glacial events registered in Neoproterozoic to Cambrian cratonic and foreland basins of West Africa. *J. Afr. Earth Sci.* **46**, 397–426.
- Evans DAD (2006) Proterozoic low orbital obliquity and axial-dipolar geomagnetic field from evaporite palaeolatitudes. *Nature* **444**, 51-55; doi:10.1038/nature05203
- Fike DA, Grotzinger JP, Pratt LM & Summons RE (2006) Oxidation of the Ediacaran Ocean. *Nature* **444**, 744–747, doi:10.1038/nature05345

- Font E, Nédélec A, Trindade RIF, Macouin M & Charrière A (2006) Chemostratigraphy of the Neoproterozoic Mirassol d'Oeste cap dolostones (Mato Grosso, Brazil): An alternative model for Marinoan cap dolostone formation. *Earth Planet. Sci. Lett.* **250**, 89–103.
- Frimmel HE, Tack L, Basei MS, Nutman AP & Boven A (2006) Provenance and chemostratigraphy of the Neoproterozoic West Congolian Group in the Democratic Republic of Congo. *J. Afr. Earth Sci.* **46**, 221–239.
- Goodman JC (2006) Through thick and thin: Marine and meteoric ice in a “Snowball Earth” climate. *Geophys. Res. Lett.* **33**, L16701, doi: 10.1029/2006GL026840.
- Halverson GP (2006) A Neoproterozoic chronology, in Xiao, SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 231–271.
- Hedges SB, Battistuzzi, FU & Blair JE (2006) Molecular timescale of evolution in the Proterozoic, in Xiao SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 199–229.
- Huntley JW, Xiao SH & Kowalewski M (2006) 1.3 billion years of acritarch: an empirical morphospace approach. *Precam. Res.* **144**, 52–68.
- Huntley JW, Xiao SH & Kowalewski M (2006) On the morphological history of Proterozoic and Cambrian acritarchs, in Xiao SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 23–56.
- Hurtgen MT, Halverson GP, Arthur MA & Hoffman PF (2006) Sulfur cycling in the aftermath of a 635-Ma snowball glaciation: Evidence for a syn-glacial sulfidic deep ocean. *Earth Planet. Sci. Lett.* **245**, 551–570.
- Jiang G, Shi X & Zhang S (2006) Methane seeps, methane hydrate destabilization, and the late Neoproterozoic cap carbonates. *Chinese Sci. Bull.* **51**(10), 1152–1173.
- Jiang GQ, Kennedy MJ, Christie-Blick N, Wu HC & Zhang SH (2006) Stratigraphy, sedimentary structures, and textures of the late Neoproterozoic Doushantuo cap carbonate in South China. *J. Sed. Res.* **76**, 978–995.
- Kasting JF & Ono S (2006) Palaeoclimates: the first two billion years. *Phil. Tran. R. Soc., Lond., Ser. B* **361**, 917–919, doi: 1.1098/rstb.2006.1839.
- Kaufman AJ, Jiang G, Christie-Blick N, Banerjee DM & Rai V (2006) Stable isotope record of the terminal Neoproterozoic Krol platform in the Lesser Himalayas of northern India. *Precam. Res.* **147**, 156–185.
- Kendall B, Creaser RA, Selby D (2006) Re–Os geochronology of postglacial black shales in Australia: Constraints on the timing of “Sturtian” glaciation. *Geology* **34**, 729–732.
- Knoll AH, Javaux EJ, Hewitt D & Cohen P (2006) Eukaryotic organisms in Proterozoic oceans. *Philosophical Trans. R. Soc., Lond., Ser. B* **361**, 1023–1038, doi: 10.1098/rstb.2006.1843.
- Knoll AH, Walter MR, Narbonne GM & Christie-Blick N (2006) The Ediacaran Period: a new addition to the geologic time scale. *Lethaia* **39**, 13–30.
- Levine R, Baarli BG & Johnson ME (2006) Glacial and rocky-shore dynamics of the Karlebotn monadnocks: late Neoproterozoic of northern Norway. *Can. J. Earth Sci.* **43**(8), 1215–1228.
- Lewis JP, Weaver AJ & Eby M (2006) Deglaciating the snowball Earth: Sensitivity to surface albedo. *Geophys. Res. Lett.* **33**, L23604, doi: 10.1029/2006GL027774.
- Liang MC, Hartman H, Kopp RE, Kirschvink JL, Yung YL (2006) Production of hydrogen peroxide in the atmosphere of the Snowball Earth and the origin of oxygenic photosynthesis. *Proc. Natl Acad. Sci. USA* **103**(50), 18896–18899.
- McCall GJH (2006) The Vendian (Ediacaran) in the geological record: Enigmas in geology's prelude to the Cambrian explosion. *Earth-Sci. Rev.* **77**, 1–229.
- McCay GA, Prave AR, Alsop GI & Fallick AE (2006) Glacial trinity: Neoproterozoic Earth history within the British-Irish Caledonides. *Geology* **34**, 909–912, doi: 10.1130/G22694A.1

- McKirdy DM, Webster LJ, Arouri KR, Grey K & Gostin VA (2006) Contrasting sterane signatures in Neoproterozoic marine rocks of Australia before and after the Acraman asteroid impact. *Org. Geochem.* **37** (2), 189–207.
- Melezhik VA (2006) Multiple causes of Earth's earliest global glaciation. *Terra Nova* **18**, 130–137, doi: 1.1111/j.1365-3121.2006.00672.x
- Mohanty S (2006) Evidence of volcanism and glaciation from the Sausar Group, central India. *J. Geol. Soc. India* **68**, 764–768.
- Nogueira ACR & Riccomini C (2006) O Grupo Araras (Neoproterozoico) na parte norte da Faixa Paraguarí e sul do Cráton Amazônico, Brasil. *Revista Brasileira de Geologia* **36**, 576–587.
- Ono SH, Beukes NJ, Rumble D III & Fogel ML (2006) Early evolution of atmospheric oxygen from multiple sulfur and carbon isotope records of the 2.9 Ga Mozaan Group of the Pongola Supergroup, southern Africa. *S. Afr. J. Geol.* **109**, 97–108.
- Pokrovskii BG, Melezhik VA & Bujakaite MI (2006) Carbon, oxygen, and sulfur isotopes in Late Precambrian rocks of the Patom Complex, central Siberia: Communication 1. Results, isotope stratigraphy, and dating problems. *Lithology and Mineral Resources* **41**, 450–474.
- Pokrovskii BG, Melezhik VA & Bujakaite MI (2006) Carbon, oxygen, and sulfur isotopes in Late Precambrian rocks of the Patom Complex, central Siberia: Communication 2. Nature of carbonates with ultralow and ultrahigh $\delta^{13}\text{C}$ values. *Lithology and Mineral Resources* **41**, 576–587.
- Pollard D & Kasting JF (2006) Reply to comment by Stephen G. Warren and Richard E. Brandt on "Snowball Earth: A thin-ice solution with flowing sea glaciers". *J. Geophys. Res.* **111**, C09017, doi: 10.1029/2006JC003488.
- Polteau S, Moore JM & Tsikos H (2006) The geology and geochemistry of the Palaeoproterozoic Makganyene diamictite. *Precam. Res.* **148**, 257–274.
- Riding R (2006) Cyanobacterial calcification, carbon dioxide concentrating mechanisms, and Proterozoic—Cambrian changes in atmospheric composition. *Geobiology* **4**, 299–316.
- Rieu R, Allen PA, Etienne JL, Cozzi A & Wiechert U (2006) A Neoproterozoic glacially influenced basin margin succession and 'atypical' cap carbonate associated with bedrock paleovalleys, Mirbat area, southern Oman. *Basin Res.* **18**, 471–496, doi: 10.1111/j.1365-2117.2006.00304.x
- Romanova V, Lohmann G & Grosfeld K (2006) Effect of land albedo, CO_2 , orography, and oceanic heat transport on extreme climates. *Clim. Past* **2**, 31–42.
- Stern RJ, Avigad D, Miller NR & Beyth M (2006) Evidence for the Snowball Earth hypothesis in the Arabian-Nubian Shield and the East African Orogen. *J. Afr. Earth Sci.* **44**, 1–20.
- Vallini DA, Cannon WF & Schulz KJ (2006) Age constraints for Paleoproterozoic glaciation in the Lake Superior Region: detrital zircon and hydrothermal xenotime ages for the Chocoy Group, Marquette Range Supergroup. *Can. J. Earth Sci.* **43**, 571–591.
- Warren SG & Brandt RE (2006) Comment on "Snowball Earth: A thin-ice solution from flowing sea glaciers" by David Pollard and James F. Kasting. *J. Geophys. Res.* **111**, C09016, doi: 10.1029/2005JC003411.
- Xiao SH & Dong L (2006) On the morphological and ecological history of Proterozoic macroalgae, in Xiao SH & Kaufman AJ (eds) *Neoproterozoic Geobiology and Paleobiology*. Springer, Dordrecht, pp. 57–90.
- Zahnle K, Claire M & Catling D (2006) The loss of mass-independent fractionation in sulfur due to a Palaeoproterozoic collapse of atmospheric methane. *Geobiology* **4**, 271–283.
- Zhang SH, Li ZX & Wu H (2006) New Precambrian palaeomagnetic constraints on the position of the North China Block in Rodinia. *Precam. Res.* **144** (3-4), 213–238.
- Zheng YF, Zhao ZF, Wu YB, Zhang SB, Liu XM & Wu FY (2006) Zircon U-Pb age, Hf and O isotope constraints on protolith origin of ultrahigh pressure eclogite and gneiss in the Dabie orogen. *Chem. Geol.* **231**, 135–158.

2005: 47 5 1 41 3 8 6 25

- Aharon P (2005) Redox stratification and anoxia of the early Precambrian oceans: implications for carbon isotope excursions and oxidation events. *Precam. Res.* **137**, 207–222.
- Allen PA & Hoffman PF (2005) Extreme winds and waves in the aftermath of a Neoproterozoic glaciation. *Nature* **433**, 123–127.
- Allen PA & Hoffman PF (2005) Formation of Precambrian sediment ripples: Reply to Jerolmack DJ & Mohrig D *Nature*, 10.1038/nature04026.
- Bekker A, Kaufman AJ, Karhu JA & Eriksson KA (2005) Evidence for Paleoproterozoic cap carbonates in North America. *Precam. Res.* **137**, 167–206.
- Bingen B, Griffin WL, Torsvik TH & Saeed A (2005) Timing of Late Neoproterozoic glaciation on Baltica constrained by detrital zircon geochronology in the Hedmark Group, south-east Norway. *Terra Nova* **17**(3), 250–258.
- Bodisielitsch B, Koeberl C, Master S & Reimold WU (2005) Estimating duration and intensity of Neoproterozoic snowball glaciations from Ir anomalies. *Science* **308**, 239–242.
- Clapham ME & Corsetti FA (2005) Deep valley incision in the terminal Neoproterozoic (Ediacaran) Johnnie Formation, eastern California, USA: tectonically or glacially driven? *Precam. Res.* **141**, 154–164.
- Collins AS & Pisarevsky SA (2005) Amalgamating eastern Gondwana: the evolution of the Circum-Indian orogens. *Earth-Sci. Rev.* **71**, 229–270.
- Condon D, Zhu MY, Bowring SA, Wang W, Yang AH, Jin YG (2005) U–Pb ages from the Neoproterozoic Doushantuo Formation, China. *Science* **308**, 95–98.
- Corsetti FA & Grotzinger JP (2005) Origin and significance of tube structures in Neoproterozoic post-glacial cap carbonates: example from Noonday Dolomite, Death Valley, United States. *Palaios* **20**, 348–363.
- Corsetti FA & Kaufman AJ (2005) The relationship between the Neoproterozoic Noonday Dolomite and the Ibex Formation: new observations and their bearing on ‘snowball Earth’. *Earth-Sci. Rev.* **73**, 63–78.
- Cukrov N, Alvarenga CJS & Uhlein A (2005) Lithofácies da glaciação neoproterozóica nas porções sul do Cráton do São Francisco: exemplos de Jequitaiá (MG) e Cristalina (GO). *Revista Brasileira de Geociências* **35**, 69–76.
- Font E, Trindade RIF & Nédélec A (2005) Detrital remanent magnetization in haematite-bearing Neoproterozoic Puga cap dolostone, Amazon craton: a rock magnetic and SEM study. *Geophys. J. Intl* **163**, 491–500.
- Gammon PR, McKirdy DM & Smith HD (2005) The timing and environment of tepee formation in a Marinoan cap carbonate. *Sed. Geol.* **177**, 195–208.
- Gaucher C, Frimmel HE & Germs GJB (2005) Organic-walled microfossils and biostratigraphy of the upper Port Nolloth Group (Namibia): implications for latest Neoproterozoic glaciations. *Geol. Mag.* **142**, 539–559.
- Goldberg T, Poulton SW & Strauss H (2005) Sulphur and oxygen isotope signatures of late Neoproterozoic to early Cambrian sulphate, Yangtze Platform, China: diagenetic constraints and seawater evolution. *Precam. Res.* **137**, 223–241.
- Grey K (2005) *Ediacaran palynology of Australia*. Association of Australian Paleontologists, Mem. **31**, Canberra, 439 p.
- Le Guerroué E, Allen P & Cozzi A (2005) Two distinct glacial successions in the Neoproterozoic of Oman. *GeoArabia* **10**, 2005.
- Halverson GP, Hoffman PF, Schrag DP, Maloof AC & Rice AHN (2005) Toward a Neoproterozoic composite carbon-isotope record. *Geol. Soc. Am. Bull.* **117**, 1181–1207, 10.1130/B25630.1
- Hilburn IA, Kirschvink JL, Tajika E, Tada R, Hamano Y & Yamamoto S (2005) A negative fold test on the Lorrain Formation of the Huronian Supergroup: Uncertainty on the paleolatitude of the

- Paleoproterozoic Gowganda glaciation and implications for the great oxidation event. *Earth Planet. Sci. Lett.* doi: 10.1016/j.epsl.2004.11.025
- Hoffman PF (2005) 28th DeBeers Alex. Du Toit Memorial Lecture: On Cryogenian (Neoproterozoic) ice-sheet dynamics and the limitations of the glacial sedimentary record. *S. Afr. J. Geol.* **108**, 557–576.
- Hurtgen MT, Arthur MA & Halverson GP (2005) Neoproterozoic sulfur isotopes, the evolution of microbial sulfur species, and the burial efficiency of sulfide as sedimentary pyrite. *Geology* **33**, 41–44.
- James NP, Narbonne GM, Dalrymple RW & Kyser TK (2005) Glendonites in Neoproterozoic low-latitude, interglacial, sedimentary rocks, northwest Canada: insights into Cryogenian ocean and Precambrian cold-water carbonates. *Geology* **33**, 9–12.
- Jerolmack DJ & Mohrig D (2005) Formation of Precambrian sediment ripples: Arising from PA Allen & PF Hoffman *Nature* **433**, 123–127 (2005). *Nature*, 10.1038/nature04025.
- Kasemann SA, Hawkesworth CJ, Prave AR, Fallick AE & Pearson PN (2005) Boron and calcium isotope composition in Neoproterozoic carbonate rocks from Namibia: evidence for extreme environmental change. *Earth Planet. Sci. Lett.* **231**, 73–86.
- Kasting JF (2005) Methane and climate during the Precambrian era. *Precam. Res.* **137**, 119–129.
- Kilner B, MacNiocail C & Brasier M (2005) Low-latitude glaciation in the Neoproterozoic of Oman. *Geology* **33**, 413–416.
- Kimura H, Azmy K, Yamamuro M, Wen JZ & Cizdziel JV (2005) Integrated stratigraphy of the upper Neoproterozoic succession in Yunnan Province of South China: re-evaluation of global correlation and carbon cycle. *Precam. Res.* **138**, 1–36.
- Klein C (2005) Some Precambrian banded iron-formations (BIFs) from around the world: their age, geologic setting, mineralogy, metamorphism, geochemistry, and origin. *Am. Mineralog.* **90**, 1473–1499.
- Kopp RE, Kirschvink JL, Hilburn IA & Nash CZ (2005) The Paleoproterozoic snowball Earth: A climate disaster triggered by the evolution of oxygenic photosynthesis. *Proc. Natl Acad. Sci. USA* **102**, 11131–11136, 10.1073/pnas.0504878102
- Kump LR & Seyfried WE Jr (2005) Hydrothermal Fe fluxes during the Precambrian: effect of low oceanic sulfate concentrations and low hydrostatic pressure on the composition of black smokers. *Earth Planet. Sci. Lett.* **235**, 654–662.
- MacGabhann BA (2005) Age constraints on Precambrian glaciations and the subdivision of Neoproterozoic time. IGCP Project 512 Report, 13 p.
- Melezhik VA, Fallick AE & Pokrovsky BG (2005) Enigmatic nature of thick sedimentary carbonates depleted in ¹³C beyond the canonical mantle value: The challenges to our understanding of the terrestrial carbon cycle. *Precam. Res.* **137**, 131–165.
- Narbonne GM (2005) The Ediacara biota: Neoproterozoic origin of animals and their ecosystems. *Annu. Rev. Earth Planet. Sci.* **33**, 421–442.
- Olcott AN, Sessions AL, Corsetti, FA, Kaufman AJ & de Oliveira TF (2005) Biomarker evidence for photosynthesis during Neoproterozoic glaciation. *Science* **310**, 471–474.
- Pavlov AA, Toon OB, Pavlov AK, Bally J & Pollard D (2005) Passing through a giant molecular cloud: “Snowball” glaciations produced by interstellar dust. *Geophys. Res. Lett.* **32**, L03705, 10.1029/2004GL021890
- Peterson KJ & Butterfield NJ (2005) Origin of the Eumetazoa: testing ecological predictions of molecular clocks against the Proterozoic fossil record. *Proc. Natl Acad. Sci., USA* **102**, 9547–9552.
- Peterson KJ, McPeck MA & DAD Evans (2005) Tempo and mode of early animal evolution: inferences from rocks, Hox, and molecular clocks. *Paleobiology* **31**, 36–55.
- Pierrehumbert RT (2005) Climate dynamics of a hard snowball Earth. *J. Geophys. Res.* **110**, D01111, 10.1029/2004JD005162

- Pollard D & Kasting JF (2005) Snowball Earth: a thin-ice solution with flowing glaciers. *J. Geophys. Res.* **110**, C07010, 10.1029/2004JC002525
- Shen YN, Zhang T & Chu X (2005) C-isotopic stratification in a Neoproterozoic postglacial ocean. *Precam. Res.* **137**, 243–251.
- Shields GA (2005) Neoproterozoic cap carbonates: a critical appraisal of existing models and the plumeworld hypothesis. *Terra Nova* **17**, 299–310.
- Sovetov YuK & Komlev DA (2005) Tillites at the base of the Oselok Group, foothills of the Sayan Mountains, and the Vendian lower boundary in the southwestern Siberian Platform. *Stratigr. Geol. Correlations* **13**, 337–366.
- Wendorff M (2005) Evolution of Neoproterozoic–Lower Paleozoic Lufilian arc, Central Africa: a new model based on syntectonic conglomerates. *J. Geol. Soc., Lond.* **162**, 5–8.
- Williams GE (2005) Subglacial meltwater channels and glaciofluvial deposits in the Kimberley Basin, Western Australia: 1.8 Ga low-latitude glaciation coeval with continental assembly. *J. Geol. Soc., Lond.* **162**, 111–124.
- Wu H, Zhang SH, Jiang GQ & Li H (2005) Magnetic susceptibility variations of the Ediacaran cap carbonates in the Yangtze platform and their implications for paleoclimate. *Chinese J. Oceanol. Limnol.* **23**, 291–298.
- Xu B, Jian P, Zheng H, Zou H, Zhang L & Liu D (2005) U–Pb zircon geochronology and geochemistry of Neoproterozoic volcanic rocks in the Tarim Block of northwest China: implications for the breakup of Rodinia supercontinents and Neoproterozoic glaciations. *Precam. Res.* **136**, 107–123.
- Yin C, Tang F, Liu Y, Gao L, Liu P, Xing Y, Yang Z, Wan Y & Wang Z (2005) U–Pb zircon age from the base of the Ediacaran Doushantuo Formation in the Yangtze Gorges, South China: constraint on the age of Marinoan glaciation. *Episodes* **28**, 48–49
- Zhang SH, Jiang GQ, Zhang J, Song B, Kennedy MJ & Christie-Blick N (2005) U–Pb sensitive high-resolution ion microprobe ages from the Doushantuo Formation in south China: constraints on late Neoproterozoic glaciations. *Geology* **33**, 473–476.
- 2004: 61 2 0 59 13 7 7 32**
- Allen PA, Leather J & Brasier MD (2004) The Neoproterozoic Fiq glaciation and its aftermath, Huqf Supergroup of Oman. *Basin Res.* **16**, 507–534, doi: 10.1111/j.1365-2117.2004.00249.x
- de Alvarenga CJS, Santos RV & Dantas EL (2004) C–O–Sr isotopic stratigraphy of cap carbonates overlying Marinoan-age glacial diamictites in the Paraguay Belt, Brazil. *Precam. Res.* **131**, 1–21.
- Arnaud E (2004) Giant cross-beds in the Neoproterozoic Port Askaig Formation, Scotland: implications for snowball Earth. *Sed. Geol.* **165**, 155–174.
- Arnaud E & Eyles CH (2004) Glacial influence on Neoproterozoic sedimentation: the Smalfjord Formation, northern Norway—reply. *Sedimentology* **51**, 1423–1430.
- Bekker A, Holland HD, Wang P-L, Rumble D III, Stein HJ, Coetzee LL & Beukes NJ (2004) Dating the rise of atmospheric oxygen. *Nature* **427**, 117–120.
- Bosak T, Souza-Egipsy V & Newman DK (2004) A laboratory model of abiotic peloid formation. *Geobiology* **2**, 189–198.
- Calver CR, Black LP, Everard JL & Seymour DB (2004) U–Pb zircon age constraints on late Neoproterozoic glaciation in Tasmania. *Geology* **32**, 893–896, doi: 10.1130/G20713.1
- Chen DF, Dong WQ, Zhu BQ & Chen XP (2004) Pb–Pb ages of Neoproterozoic Doushantuo phosphorites in South China: constraints on early metazoan evolution and glaciation events. *Precam. Res.* **132**, 123–132.
- Chumakov NM (2004) Climates and climate zonality of the Vendian: geological evidence, in Vickers-Rich P & Komarower P (eds) *The Rise and Fall of the Ediacaran Biota*. Geol. Soc., Lond., Sp. Publ. 286, pp. 15–26.
- Corsetti FA, Lorentz NJ & Pruss SB (2004) Formerly-aragonite seafloor fans from Neoproterozoic strata, Death Valley and southeastern Idaho, United States: implications for “cap carbonate”

- formation and Snowball Earth, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 33–44.
- Dobrzinski N, Bahlburg H, Strauss H & Zhang Q (2004) Geochemical proxies applied to the Neoproterozoic glacial succession on the Yangtze Platform, South China, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 13–32.
- Donnadieu Y, Godd ris Y, Ramstein G, N d lec A & Meert J (2004) A ‘snowball Earth’ climate triggered by continental break-up through changes in runoff. *Nature* **428**, 303–306.
- Donnadieu Y, Ramstein G, Godd ris Y & Fluteau F (2004) Global tectonic setting and climate of the Late Neoproterozoic: a climate-geochemical coupled study, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds.) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 79–89.
- Donnadieu Y, Ramstein G, Fluteau F, Roche D & Gonopolski A (2004) The impact of atmospheric and oceanic heat transport on the sea-ice instability during the Neoproterozoic. *Clim. Dyn.* **22**(2-3), 293–306.
- Edwards MB (2004) Glacial influence on Neoproterozoic sedimentation: the Smalfjord Formation, northern Norway—discussion. *Sedimentology* **51**, 1409–1417.
- Eyles N (2004) Frozen in time: concepts of ‘global glaciation’ from 1837 (die Eiszeit) to 1998 (the Snowball Earth). *Geosci. Can.* **31**, 157–166.
- Eyles N & Januszczak N (2004a) ‘Zipper-rift’: a tectonic model for Neoproterozoic glaciations during the breakup of Rodinia after 750 Ma. *Earth-Science Rev.* **65**, 1–73.
- Eyles N & Januszczak N (2004b) Interpreting the Neoproterozoic glacial record: the importance of tectonics, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 125–144.
- Fanning CM & Link PK (2004) U-Pb SHRIMP ages of Neoproterozoic (Sturtian) glaciogenic Pocatello Formation, southeastern Idaho. *Geology* **32**, 881–884, doi:10.1130/G20609.1
- Frimmel HE (2004) Neoproterozoic sedimentation rates and timing of glaciation—a southern African perspective, in Eriksson PG, Altermann W, Nelson DR, Mueller WU & Catuneanu O (eds) *The Precambrian Earth: Tempos and Events*. Elsevier, Amsterdam, pp. 459–473.
- Frimmel HE & F lling (2004) Late Vendian closure of the Adamastor Ocean: timing of tectonic inversion and syn-orogenic sedimentation in the Gariiep Basin. *Gondwana Res.* **7**, 685–700.
- Halverson GP, Maloof AC & Hoffman PF (2004) The Marinoan glaciation (Neoproterozoic) in northeast Svalbard. *Basin Res.* **16**, 297–324, doi: 10.1111/j.1365-2117.2004.00234.x
- Hannah JL, Bekker A, Stein HJ, Markey RJ & Holland HD (2004) Dating the rise of atmospheric oxygen. *Earth Planet. Sci. Lett.* **225**, 43–52.
- Hedges SB (2004) Molecular clocks and a biological trigger for Snowball Earth and the Cambrian explosion, in Donoghue PCJ & Smith MP (eds) *Telling the Evolutionary Time: Molecular Clocks and the Fossil Record*. CRC Press, Boca Raton, Florida, 27–40.
- Hoffmann K-H, Condon DJ, Bowring SA & Crowley JL (2004) U-Pb zircon date from the Neoproterozoic Ghaub Formation, Namibia: constraints on Marinoan glaciation. *Geology* **32**, 817–820, doi:10.1130/G20519.1
- Hurtgen MT, Arthur MA & Prave AR (2004) The sulfur isotope composition of carbonate-associated sulfate in Mesoproterozoic to Neoproterozoic carbonates from Death Valley, California, in Amend JP, Edwards KJ & Lyons TW (eds) *Sulfur Biogeochemistry—Past and Present*. Geological Society of America, Sp. Pap. **379**, Boulder, CO, pp. 177–194.
- Jenkins GS (2004) A review of Neoproterozoic climate modeling studies, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 73–78.

- Jenkins GS (2004) High obliquity as an alternative hypothesis to early and late Proterozoic extreme climate conditions, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 183–192.
- Kendall BS, Craeser RA, Ross GM & Selby D (2004) Constraints on the timing of Marinoan “Snowball Earth” glaciation by ^{187}Re – ^{187}Os dating of a Neoproterozoic, post-glacial black shale in western Canada. *Earth Planet. Sci. Lett.* **222**, 729–740.
- Klein C & Ladeira EA (2004) Geochemistry and mineralogy of Neoproterozoic banded iron-formations and some selected, siliceous manganese formations from the Urucum District, Mato Grosso do Sul, Brazil. *Econ. Geol.* **99**, 1233–1244.
- Laajoki K (2004) The Lårajeaggi outcrop—a large combined Neoproterozoic/Pleistocene roche moutonnée at Karlebotn, Finnmark, northern Norway. *Norwegian J. Geol.* **84**, 107–115.
- Langen PL & Alexeev VA (2004) Multiple equilibria and asymmetric climates in the CCM3 coupled to an oceanic mixed layer with thermodynamic sea ice. *Geophys. Res. Lett.* **31**, L04201,
- Lenton TM & Watson AJ (2004) Biotic enhancement of weathering, atmospheric oxygen and carbon dioxide in the Neoproterozoic. *Geophys. Res. Lett.* **31**, L05202, doi:10.1029/2003GL018802.
- Lewis JP, Eby M, Weaver AJ & Johnston ST (2004) Global glaciation in the Neoproterozoic: reconciling previous modelling results. *Geophys. Res. Lett.* **31**, L08201, doi:10.1029/2004GL019725.
- Li ZX, Evans DAD & Zhang S (2004) A 90° spin on Rodinia: possible causal links between the Neoproterozoic supercontinent, superplume, true polar wander and low-latitude glaciation. *Earth Planet. Sci. Lett.* **220**, 409–421.
- Lorentz NJ, Corsetti FA & Link PK (2004) Seafloor precipitates and C-isotope stratigraphy from the Neoproterozoic Scout Mountain Member of the Pocatello Formation, southeast Idaho: implications for Neoproterozoic earth system behavior. *Precam. Res.* **130**, 57–70.
- Macouin M, Besse J, Ader M, Gilder S, Yang Z, Sun Z & Agrinier P (2004) Combined paleomagnetic and isotopic data from the Doushantuo carbonates, South China: implications for the “snowball Earth” hypothesis. *Earth Planet. Sci. Lett.* **224**, 387–398.
- McKay CP (2004) Thin ice on the Snowball Earth, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 193–198.
- McMenamin MAS (2004) Climate, paleoecology and abrupt change during the late Proterozoic: a consideration of causes and effects, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 215–229.
- Meert JG & Torsvik TH (2004) Paleomagnetic constraints on Neoproterozoic ‘Snowball Earth’ continental reconstructions, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 5–11.
- Peltier WR, Tarasov L, Vettoretti G & Solheim LP (2004) Climate dynamics in deep time: modeling the “snowball bifurcation” and assessing the plausibility of its occurrence, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 107–124.
- Peterson KJ, Lyons JB, Nowak KS, Takacs CM, Wargo MJ & McPeck MA (2004) Estimating metazoan divergence times with a molecular clock. *Proc. Natl Acad. Sci. USA* **101**, 6536–6541.
- Pierrehumbert RT (2004) High levels of atmospheric carbon dioxide necessary for the termination of global glaciation. *Nature* **429**, 646–649.
- Pollard D & Kasting JF (2004) Climate-ice sheet simulations of Neoproterozoic glaciation before and after collapse to Snowball Earth, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The*

- Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 91–105.
- Porter SM, Knoll AH & Affaton P (2004) Chemostratigraphy of Neoproterozoic cap carbonates from the Volta Basin, West Africa. *Precam. Res.* **130**, 99–112.
- Poulsen C & Jacob R (2004) Factors that inhibit snowball Earth simulation. *Paleoceanography* **19**, PA4021, doi: 10.1029/2004PA001056
- Rice AHN (2004) Glacial influence on Neoproterozoic sedimentation: the Smalfjord Formation, northern Norway—discussion. *Sedimentology* **51**, 14219–1422.
- Ridgwell A & Kennedy M (2004) Secular changes in the importance of neritic carbonate deposition as a control on the magnitude and stability of Neoproterozoic ice ages, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 55–72.
- Stone PH & Yao MS (2004) The ice-covered Earth instability in a model of intermediate complexity. *Clim. Dyn.* **22**, 815–822.
- Tajika E (2004) Analysis of carbon cycle system during the Neoproterozoic: implications for Snowball Earth events. In: Jenkins, G.S., McMenamin, M.A.S., McKey, C.P., & Sohl, L. (eds.) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 45–54.
- Thomas CW, Graham CM, Ellam RM & Fallick AE (2004) ⁸⁷Sr/⁸⁶Sr chemostratigraphy of Neoproterozoic Dalradian limestones of Scotland and Ireland: constraints on depositional ages and time scales. *J. Geol. Soc., Lond.* **161**, 229–242.
- Vincent WF, Mueller DR & Bonilla S (2004) Ecosystems on ice: the microbial ecology of Markham Ice Shelf in the high Arctic. *Cryobiology* **48**, 103–112.
- Vincent WF, Mueller D, Van Hove P, Howard-Williams C (2004) Glacial periods on early Earth and implications for the evolution of life, in Seckbach J (ed.) *Origins: Genesis, Evolution and Diversity of Life*. Springer, Netherlands, pp. 483–501.
- Williams GE (2004) The paradox of Proterozoic glaciomarine deposition, open seas and strong seasonality near the palaeo-equator: global implications, in Eriksson PG, Altermann W, Nelson DR, Mueller WU & Catuneanu O (eds) *The Precambrian Earth: Tempos and Events*. Elsevier, Amsterdam, pp. 448–459.
- Williams GE & Schmidt PW (2004) Neoproterozoic glaciation: reconciling low paleolatitudes and the geologic record, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 145–159.
- Xiao, SH (2004) Neoproterozoic glaciations and the fossil record, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 199–214.
- Xiao SH, Bao HM, Wang H, Kaufman AJ, Zhou CM, Li G, Yuan X & Ling H (2004) The Neoproterozoic Quruqtagh Group in eastern Chinese Tianshan: evidence for a post-Marinoan glaciation. *Precam. Res.* **130**, 1–26.
- Yang Z, Sun Z, Yang T & Pei J (2004) A long connection (750–380 Ma) between South China and Australia: paleomagnetic constraints. *Earth Planet. Sci. Lett.* **7002**, 1–12.
- Young GM (2004) Earth's earliest glaciations: tectonic setting and stratigraphic context of Paleoproterozoic glaciogenic deposits, in Jenkins GS, McMenamin MAS, McKay CP & Sohl L (eds) *The Extreme Proterozoic: Geology, Geochemistry, and Climate*. American Geophysical Union, Geophys. Monogr. 146, pp. 161–181.
- Young GM (2004) Earth's two great Precambrian glaciations: aftermath of the "snowball Earth" hypothesis, in Eriksson PG, Altermann W, Nelson DR, Mueller WU & Catuneanu O (eds) *The Precambrian Earth: Tempos and Events*. Elsevier, Amsterdam, pp. 440–448.

Zheng YF, Wu YB, Chen FK, Gong B, Li L & Zhao ZF (2004) Zircon U–Pb and oxygen isotope evidence for a large-scale ^{18}O depletion event in igneous rocks during the Neoproterozoic. *Geochim. Cosmochim. Acta* **68**, 4245–4165.

Zhou CM, Tucker R, Xiao SH, Peng Z, Yuan X & Chen Z (2004) New constraints on the ages of Neoproterozoic glaciations in south China. *Geology* **32**, 437–440.

2003: 50 1 1 48 11 7 5 25

Baum SK & Crowley TJ (2003) The snow/ice instability as a mechanism for rapid climate change: a Neoproterozoic snowball Earth model example. *Geophys. Res. Lett.* **30**, 10.1029/2003GL017333.

Bekker A, Karhu JA, Eriksson KA & Kaufman AJ (2003) Chemostratigraphy of Paleoproterozoic carbonate successions of the Wyoming Craton: tectonic forcing of biogeochemical change? *Precam. Res.* **120**, 279–325.

Beyth M, Avigad D, Wetzel HU & Berhe SM (2003) Crustal exhumation and indications for Snowball Earth in the East African orogen: north Ethiopia and east Eritrea. *Precam. Res.* **123**, 187–201.

Bowring SA, Myrow P, Landing E, Ramezani J & Grotzinger JP (2003) Geochronological constraints on terminal Neoproterozoic events and the rise of metazoans. European Geophysical Union Annual Meeting, Nice 2003, *Geophys. Res. Abstr.* **5**, p. 13219.

Christner BC, Kvitko BH II & Reeve JN (2003) Molecular identification of Bacteria and Eukarya inhabiting an Antarctic cryoconite hole. *Extremophiles* **7**, 177–183.

Corsetti FA & Kaufman AJ (2003) Stratigraphic investigations of carbon isotope anomalies and Neoproterozoic ice ages in Death Valley, California. *Geol. Soc. Am. Bull.* **115**, 916–932.

Corsetti FA, Awramik SM & Pierce D (2003) A complex microbiota from snowball Earth times: microfossils from the Neoproterozoic Kingston Peak Formation, Death Valley, USA. *Proc. Natl Acad. Sci. USA* **100**, 4399–4404.

Donnadieu Y, Fluteau F, Ramstein G, Ritz C & Besse J (2003) Is there a conflict between the Neoproterozoic glacial deposits and the snowball Earth interpretation: an improved understanding with numerical modeling. *Earth Planet. Sci. Lett.* **208**, 101–112.

Evans DAD (2003) A fundamental Precambrian–Phanerozoic shift in earth’s glacial style? *Tectonophysics* **375**, 353–385.

Fraiser ML & Corsetti FA (2003) Neoproterozoic carbonate shrubs: interplay of microbial activity and unusual environmental conditions in post-snowball Earth oceans. *Palaios* **18**, 378–387.

Gaucher C, Boggiani PC, Sprechmann P, Sial AN & Fairchild T (2003) Integrated correlation of the Vendian to Cambrian Arroyo del Soldado and Corumbá Groups (Uruguay and Brazil): palaeogeographic, palaeoclimatic and palaeobiologic implications. *Precam. Res.* **120**, 241–278.

Goddéris Y, Donnadieu Y, Nédélec A, Dupré B, Dessert C, Grard A, Ramstein G & Francois LM (2003) The Sturtian ‘snowball’ glaciation: fire and ice. *Earth Planet. Sci. Lett.* **211**, 1–12.

Goodman J & Pierrehumbert RT (2003) Glacial flow of floating marine ice in “Snowball Earth”. *J. Geophys. Res.* **108**(C10), 3308, doi: 10.1029/2002JC001471.

Gorjan P, Walter MR & Swart R (2003) Global Neoproterozoic (Sturtian) post-glacial sulfide-sulfur isotope anomaly recognized in Namibia. *J. Afr. Earth Sci.* **36**, 89–98.

Grey K, Walter MR & Calver CR (2003) Neoproterozoic biotic diversification: Snowball Earth or aftermath of the Acraman impact? *Geol. Soc. Am. Bull.* **31**, 459–462.

Higgins JA & Schrag DP (2003) Aftermath of a snowball Earth: Geochemistry, Geophysics, Geosystems, v. 4, no. 3, doi: 10.1029/2002GC000403.

Jackson MPA, Warin ON, Woad GM & Hudec MR (2003) Neoproterozoic allochthonous salt tectonics during Lufilian orogeny in the Katangan Copperbelt, central Africa. *Geol. Soc. Am. Bull.* **115**, 314–330.

Jiang G, Kennedy MJ & Christie-Blick N (2003) Stable isotopic evidence for methane seeps in Neoproterozoic postglacial cap carbonates. *Nature* **426**, 822–826.

- Jiang G, Sohl LE & Christie-Blick N (2003) Neoproterozoic stratigraphic comparison of the Lesser Himalaya (India) and Yangtze clock (south China): paleogeographic implications. *Geology* **31**, 917–920.
- Jiang G, Christie-Blick N, Kaufman AJ, Banerjee DM & Rai V (2003) Carbonate platform growth and cyclicity at a terminal Proterozoic passive margin, Infra Krol Formation and Krol Group, Lesser Himalaya, India. *Sedimentology* **50**, 921–952.
- Kasting JF & Catling D (2003) Evolution of a habitable planet. *Annu. Rev. Astron. Astrophys.* **41**, 429–463.
- Kellerhals P & Matter A (2003) Facies analysis of a glaciomarine sequence, the Neoproterozoic Mirbat Sandstone Formation, Sultanate of Oman. *Eclogae Geologicae Helveticae* **96**, 49–70.
- Lévraud B & Laskar J (2003) Climate friction and the Earth's obliquity. *Geophys. J. Intl* **154**, 970–990.
- Lewis JP, Weaver AJ, Johnston, ST & Eby M (2003) Neoproterozoic “snowball Earth”: Dynamic sea ice over a quiescent ocean. *Paleoceanography* **18**(4), 1092, doi: 10.1029/2003PA000296.
- Li HK, Lu SN, Chen ZH, Xiang ZQ, Zhou HY & Hao GJ (2003) Zircon U-Pb geochronology of rift-type volcanic rocks of the Yaolinghe Group in the South Qinling orogen. *Geol. Bull. China* **22**(10), 775–781.
- Lund K, Aleinikoff, JN, Evans KV & Fanning CM (2003) SHRIMP geochronology of Neoproterozoic Windermere Supergroup, central Idaho: implications for rifting of western Laurentia and synchronicity of Sturtian glacial deposits. *Geol. Soc. Am. Bull.* **115**, 349–372.
- Melcher F (2003) The Otavi Mountain Land in Namibia: Tsumeb, germanium and snowball Earth. *Mitteilungen Österreichischen Mineralogischen Gesellschaft* **148**, 413–435.
- Miller NR, Alene M, Sacchi R, Stern RJ, Conti A, Kröner A & Zuppi G (2003) Significance of the Tambien Group (Tigray, N. Ethiopia) for Snowball Earth events in the Arabian-Nubian Shield. *Precam. Res.* **121**, 263–283.
- Narbonne GM & Gehling JG (2003) Life after snowball: the oldest complex Ediacaran fossils. *Geology* **31**, 27–30.
- Nogueira ACR, Riccomini C, Sial AN, Moura CAV & Fairchild TR (2003) Soft-sediment deformation at the base of the Neoproterozoic Puga cap carbonate (southwestern Amazon craton, Brazil): confirmation of rapid icehouse to greenhouse transition in snowball Earth. *Geology* **31**, 613–616.
- Pazos PJ, Sánchez-Bettucci L & Tofalo OR (2003) The record of the Varanger glaciation at the Río de la Plata craton, Vendian-Cambrian of Uruguay. *Gondwana Res.* **6**, 65–77.
- Poulsen CJ (2003) Absence of a runaway ice-albedo feedback in the Neoproterozoic. *Geology* **31**, 473–476.
- Pavlov AA, Hurtgen MT, Kasting JF & Arthur MA (2003) Methane-rich Proterozoic atmosphere? *Geology* **31**, 87–90.
- Ridgwell AJ, Kennedy MJ & Caldeira K (2003) Carbonate deposition, climate stability, and Neoproterozoic ice ages. *Science* **302**, 859–862.
- Røe S-L (2003) Neoproterozoic peripheral-basin deposits in eastern Finnmark, N. Norway: stratigraphic revision and palaeotectonic implications. *Norwegian J. Geol.* **83**, 259–274.
- Sankaran AV (2003) Neoproterozoic ‘snowball earth’ and the ‘cap’ carbonate controversy. *Curr. Sci.* **84**, 871–873.
- Sukumaran PV (2003) Geologic and climatic puzzle of the Proterozoic Snowball Earth. *Resonance* (December 2003), 8–17.
- Schaefer BF & Burgess JM (2003) Re-Os isotopic age constraints on deposition in the Neoproterozoic Amadeus Basin: implications for the ‘Snowball Earth’. *J. Geol. Soc., Lond.* **160**, 825–828.
- Tajika E (2003) Faint young Sun and the carbon cycle: implication for the Proterozoic global glaciations. *Earth Planet. Sci. Lett.* **214**, 443–453.

- Trindade RIF, Font E, D'Agrella-Filho MS, Nogueira ACR & Riccomini C (2003) Low-latitude and multiple geomagnetic reversals in the Neoproterozoic Puga cap carbonate, Amazon craton. *Terra Nova* **15**, 441–446, doi: 10.1046/j.1365-3121.2003.00510.x.
- Vincent WF, Mueller D, Van Hove P & Howard-Williams C (2004) Glacial periods on early Earth and implications for the evolution of life, in Seckbach J (ed.) *Origins: Genesis, Evolution and Diversity of Life*. Kluwer Academic Publishers, Dordrecht, Netherlands, pp. 481–501.
- Walker G (2003) Snowball Earth: the story of the great global catastrophe that spawned life as we know it. Crown Publishers, New York, 269 p.
- Walker G (2003) The longest winter. *Natural History*, April 2003. 44–51.
- Wang J & Li Z-X (2003) History of Neoproterozoic rift basins in South China: implications for Rodinia break-up. *Precam. Res.* **122**, 141–158.
- Williams DM & Pollard D (2003) Extraordinary climates of Earth-like planets: three-dimensional climate simulations at extreme obliquity. *Intl J. Astrobiol.* **2**(1), 1–19.
- Yang R, Wang S, Dong L, Jiang L, Zhang W & Gao H (2003) Sedimentary and geochemical characteristics of Sinian cap carbonates in the Upper Yangtze region. *Chinese J. Geochem.* **22**, 320–329.
- Yoshioka H, Asahara Y, Tojo B & Kawakami S (2003) Systematic variations in C, O, and Sr isotopes and elemental concentrations in Neoproterozoic carbonates in Namibia: implications for a glacial to interglacial transition. *Precam. Res.* **124**, 69–85.
- Zhang T, Chu X, Zhang Q, Feng L & Huo W (2003) Variations of sulfur and carbon isotopes in seawater during the Doushantuo stage in late Neoproterozoic. *Chinese Sci. Bull.* **48**, 1375–1380.
- Zheng YF, Fu B, Gong B & Li L (2003) Stable isotope geochemistry of ultrahigh pressure metamorphic rocks from the Dabie–Sulu orogen in China: implications for geodynamics and fluid regime. *Earth-Sci. Rev.* **62**, 105–161.
- Zheng YF, Gong B, Zhao ZF & Li YL (2003) Two types of gneisses associated with eclogite at Chuanghe in the Dabie terrane: carbon isotope, zircon U–Pb dating and oxygen isotope. *Lithos* **70**, 321–343.

2002: 32 4 0 28 8 5 0 16

- Arnaud E & Eyles CH (2002) Glacial influence on Neoproterozoic sedimentation: the Smalfjord Formation, northern Norway. *Sedimentology* **49**, 765–788.
- Arnaud E & Eyles CH (2002) Catastrophic mass failure of a Neoproterozoic glacially influenced continental margin, the Great Breccia, Port Askaig Formation, Scotland. *Sed. Geol.* **151**, 313–333.
- Barfod GH, Albarède F, Knoll AH, Xiao SH, Télouk, Frei R & Baker J (2002) New Lu–Hf and Pb–Pb age constraints on the earliest animal fossils. *Earth Planet. Sci. Lett.* **201**, 203–212.
- Bendtsen J (2002) Climate sensitivity to changes in solar insolation in a simple coupled climate model. *Clim. Dyn.* **18**, 595–609.
- Bendtsen J & Bjerrum CJ (2002) Vulnerability of climate on Earth to sudden changes in insolation. *Geophys. Res. Lett.* **29**, doi: 10.1029/2002GL014829.
- Beukes NJ, Dorland H, Gutzmer J, Nedachi M & Ohmoto H (2002) Tropical laterites, life on land, and the history of atmospheric oxygen in the Paleoproterozoic. *Geology* **30**, 491–494.
- Catuneanu O & Eriksson PG (2000) Sequence stratigraphy of the Precambrian Rooihogte–Timeball Hill rift succession, Transvaal Basin, South Africa. *Sed. Geol.* **147**, 71–88.
- Condon DJ, Prave AR & Benn DI (2002) Neoproterozoic glacial-rainout intervals: observations and implications. *Geology* **30**, 35–38.
- Donnadieu Y, Ramstein G, Fluteau F, Besse J & Meert J (2002) Is high obliquity a plausible cause for Neoproterozoic glaciations? *Geophys. Res. Lett.* **29**, 10.1029/2002GL015902.
- Fawcett PJ & Boslough MBE (2002) Climatic effects of an impact-induced equatorial debris ring. *J. Geophys. Res.* **107**, doi: 10.1029/2001JD001230.

- Fölling PG & Frimmel HE (2002) Chemostratigraphy correlation of carbonate successions in the Gariiep and Saldania Belts, Namibia and South Africa. *Basin Res.* **14**, 69–88.
- Frimmel HE, Fölling PG & Eriksson PG (2002) Neoproterozoic tectonic and climatic evolution recorded in the Gariiep Belt, Namibia and South Africa. *Basin Res.* **14**, 55–67.
- Halverson GP, Hoffman PF, Schrag DP & Kaufman AJ (2002) A major perturbation of the carbon cycle before the Ghaub glaciation (Neoproterozoic) in Namibia: Prelude to snowball Earth? *Geochem. Geophys. Geosyst.* **3**, doi: 10.1029/2001GC000244.
- Hartman H (2002) Macroevolution, catastrophe and horizontal transfer, in Syvanen M & Kado CI (eds) *Horizontal Gene Transfer, 2nd ed.* Academic Press, San Diego, pp. 411–415.
- Hoffman PF (2002) Carbonates bounding glacial deposits: Evidence for Snowball Earth episodes and greenhouse aftermaths in the Neoproterozoic Otavi Group of northern Namibia. *Excursion Guide, 16th International Sedimentological Conference*, Auckland Park, South Africa, 39 p.
- Hoffman PF & Schrag DP (2002) The snowball Earth hypothesis: testing the limits of global change. *Terra Nova* **14**, 129–155.
- Hoffman PF, Halverson GP & Grotzinger JP (2002) Are Proterozoic cap carbonates and isotopic excursions a record of gas hydrate destabilization following Earth's coldest intervals? Comment and Reply. *Geology* **30**, 286–288.
- Hurtgen MT, Arthur MA, Suits NS & Kaufman AJ (2002) The sulfur isotopic composition of Neoproterozoic seawater sulfate: implications for a snowball Earth? *Earth Planet. Sci. Lett.* **203**, 413–429.
- Jiang GQ, Christie-Blick N, Kaufman AJ, Banerjee DM & Rai V (2002) Sequence stratigraphy of the Neoproterozoic Infra Krol Formation and Krol Group, Lesser Himalaya, India. *J. Sed. Res.* **72**, 524–542.
- Kirschvink JL (2002) Quand tous les océans étaient gelés (When all of the oceans were frozen). *La Recherche* **355**, 26–30.
- Laajoki K (2002) New evidence of glacial abrasion of the Late Proterozoic unconformity around Varangerfjorden, northern Norway, in Altermann W & Corcoran PL (eds) *Precambrian Sedimentary Environments: a Modern Approach to Ancient Depositional Systems*. International Association of Sedimentologists, Sp. Publ. **33**, pp. 405–436.
- Leather J, Allen PA, Brasier MD & Cozzi A (2002) Neoproterozoic snowball Earth under scrutiny: evidence from the Fiq glaciation of Oman. *Geology* **30**, 891–894.
- Lindsay JF & Brasier MD (2002) Did global tectonics drive early biosphere evolution? Carbon isotope record from 2.6 to 1.9 Ga carbonates of Western Australian basins. *Precam. Res.* **114**, 1–34.
- Maloof AC, Kellogg JB & Anders AM (2002) Neoproterozoic sand wedges: crack formation in frozen soils under diurnal forcing during a snowball Earth. *Earth Planet. Sci. Lett.* **204**, 1–15.
- Pierrehumbert RT (2002) The hydrologic cycle in deep-time climate problems. *Nature* **419**, 191–198.
- Poulsen CJ, Jacob RL, Pierrehumbert RT & Huynh TT (2002) Testing paleogeographic controls on a Neoproterozoic snowball Earth. *Geophys. Res. Lett.* **29**, 10.1029/2001GL014352.
- Rumble D, Giorgis D, Ireland T, Zhang Z, Xu H, Yui, TF, Yang J, Xu Z & Liou JG (2002) Low $\delta^{18}\text{O}$ zircons, U-Pb dating, and the age of the Qinglongshan oxygen and hydrogen isotope anomaly near Donhai in Jiangsu Province, China. *Geochim. Cosmochim. Acta* **66**, 2299–2306.
- Shapiro RS (2002) Are Proterozoic cap carbonates and isotopic excursion a record of gas hydrate destabilization following Earth's coldest intervals?: Comment and Reply. *Geology* **30**, 761–763.
- Shields GA, Brasier MD, Stille P & Dorjnamjaa D (2002) Factors contributing to high $\delta^{13}\text{C}$ values in Cryogenian limestones of western Mongolia. *Earth Planet. Sci. Lett.* **196**, 99–111.
- Schrag DP, Berner RA, Hoffman PF & Halverson GP (2002) On the initiation of a snowball Earth. *Geophys. Geochem. Geosyst.* **3**(4), 209, 1–21, doi:10.1029/2001GC000219

- Sovetov JK (2002) Vendian foreland basin of the Siberian cratonic margin: Paleopangean accretionary phases. *Russian J. Earth Sci.* **4**, 363–387.
- Sumner DY (2002) Decimetre-thick encrustations of calcite and aragonite on the sea-floor and implications for Neoarchean and Neoproterozoic ocean chemistry, in Altermann W & Corcoran PL (eds) *Precambrian Sedimentary Environments: a Modern Approach to Ancient Depositional Systems*. International Association of Sedimentologists, Sp. Publ. **33**, pp. 107–120.
- Warren SG, Brandt RE, Grenfell TC & McKay CP (2002) Snowball Earth: Ice thickness on the tropical ocean. *J. Geophys. Res.* **107**(C10), 3167, doi:10.1029/2001JC001123.
- Young GM (2002) Stratigraphic and tectonic settings of Proterozoic glaciogenic rocks and banded iron-formations: relevance to the snowball Earth debate. *J. Afr. Earth Sci.* **35**, 451–466.

2001: 24 3 2 19 5 3 0 11 (535)

- Baum SK & Crowley TJ (2001) GCM response to Late Precambrian (~590 Ma) ice-covered continents. *Geophys. Res. Lett.* **28**, 583–586.
- Bekker A, Kaufman AJ, Karhu JA, Beukes NJ, Swart QD, Coetzee LL & Eriksson KA (2001) Chemostratigraphy of the Paleoproterozoic Deutschland Formation, South Africa: implications for coupled climate change and carbon cycling. *Am. J. Sci.* **301**, 261–285.
- Bendtsen J (2001) Climate sensitivity to changes in solar insolation in a simple coupled climate model. *Clim. Dyn.* **18**, 595–609.
- Catling DC, Zahnle KJ, McKay CP (2001) Biogenic methane, hydrogen escape, and the irreversible oxidation of early Earth. *Science* **293**, 839–843.
- Corkeron ML & George AD (2001) Glacial incursion on a Neoproterozoic carbonate platform in the Kimberley region, Australia. *Geol. Soc. Am. Bull.* **113**, 1121–1132.
- Crowley TJ, Hyde WT & Peltier WR (2001) CO₂ levels required for deglaciation of the “Near-Snowball” Earth. *Geophys. Res. Lett.* **28**, 283–286.
- Evans DAD, Li ZX, Kirschvink JL & Wingate MTD (2001) A high-quality mid-Neoproterozoic paleomagnetic pole from South China, with implications for ice ages and the breakup configuration of Rodinia. *Precam. Res.* **100**, 313–334.
- Fairchild IJ (2001) Encapsulating climatic catastrophe: Snowball Earth. *Geoscientist* **11**, 00-00.
- Frimmel HE & Jiang SY (2001) Marine evaporites from an oceanic island in the Neoproterozoic Adamastor ocean. *Precam. Res.* **105**, 57–71.
- Gorokhov IN, Siedlecka A, Roberts D, Melnikov NN & Turchenko TL (2001) Rb–Sr dating of diagenetic illite in Neoproterozoic shales, Varanger Peninsula, northern Norway. *Geol. Mag.* **138**, 541–562.
- Hoffman PF & Maloof AC (2001) Tilting at snowballs.
<http://www.eps.harvard.edu/people/faculty/hoffman/TAG.html>
- James NP, Narbonne GM & Kyser TK (2001) Late Neoproterozoic cap carbonates: Mackenzie Mountains, northwestern Canada: precipitation and global glacial meltdown. *Can. J. Earth Sci.* **38**, 1229–1262.
- Kennedy MJ, Christie-Blick N & Prave AR (2001) Carbon isotopic composition of Neoproterozoic glacial carbonates as a test of paleoceanographic models for snowball Earth phenomena. *Geology* **29**, 1135–1138.
- Kennedy MJ, Christie-Blick N & Sohl LE (2001) Are Proterozoic cap carbonates and isotopic excursions a record of gas hydrate destabilization following Earth’s coldest intervals? *Geology* **29**, 443–446.
- Key RM, Liyungu AK, Njamu FM, Somwe V, Banda J, Mosley PN & Armstrong RA (2001) The western arm of the Lufilian Arc in NW Zambia and its potential for copper mineralization. *J. Afr. Earth Sci.* **33**, 503–528.
- Laajoki K (2001) Additional observations on the Late Proterozoic Varangerfjorden unconformity, Finnmark, northern Norway. *Bull. Geol. Soc. Finland* **73**, 17–34.

- McKirdy DM, Burgess JM, Lemon NM, Yu XK, Cooper AM, Gostin VA, Jenkins RJF, Both RA (2001) A chemostratigraphic overview of the late Cryogenian interglacial sequence in the Adelaide Fold-Thrust Belt, South Australia. *Precam. Res.* **106**, 149–186.
- McNamara AK, MacNiocail C, van der Pluijm BA & Van der Voo R (2001) West African proximity of the Avalon terrane in the latest Precambrian. *Geol. Soc. Am. Bull.* **113**, 1161–1170.
- Pisarevsky SA, Li ZX, Grey K, Stevens MK (2001) A palaeomagnetic study of Empress 1A, a stratigraphic drillhole in the Officer Basin: evidence for a low-latitude position of Australia in the Neoproterozoic. *Precam. Res.* **110**, 93–108.
- Poulsen CJ, Pierrehumbert RT & Jacob RL (2001) Impact of ocean dynamics on the simulation of the Neoproterozoic “snowball Earth”. *Geophys. Res. Lett.* **28**, 1575–1578.
- Schrag DP & Hoffman PF (2001) Life, geology and snowball Earth. *Nature* **409**, 306.
- Tsikos H, Moore JM & Harris C (2001) Geochemistry of the Palaeoproterozoic Mooidraai Formation: Fe-rich limestone as end member of iron formation deposition, Kalahari Manganese Field, Transvaal Supergroup, South Africa. *J. Afr. Earth Sci.* **32**, 19–27.
- Young GM, Long DGF, Fedo CM & Nesbitt HW (2001) Paleoproterozoic Huronian basin: product of a Wilson cycle punctuated by glaciations and a meteorite impact. *Sed. Geol.* **141–142**, 233–254.
- Zhou CM, Yan K, Hu J, Meng F, Chen Z, Xue Y, Cao R, Yin L, Wang J, Wang J, Xiao SH, Bao HM, Yuan X (2001) The Neoproterozoic tillites at Lantian, Xuining County, Anhui Province (China). *J. Stratigraphy* (Chinese with English abstract) **25**, 247–252, 258.
- 2000: 41 1 1 39 5 4 3 27 (497)**
- Brasier MD & Shields G (2000) Neoproterozoic chemostratigraphy and correlation of the Port Askaig glaciation, Dalradian Supergroup of Scotland. *J. Geol. Soc., Lond.* **157**, 909–914.
- Brasier M, McCarron G, Tucker R, Leather J, Allen P & Shields G (2000) New U-Pb zircon dates for the Neoproterozoic Gubrah glaciation and for the top of the Huqf Supergroup, Oman. *Geology* **28**, 175–178.
- Condon DJ & Prave AR (2000) Two from Donegal: Neoproterozoic glacial episodes on the northeast margin of Laurentia. *Geology* **28**, 951–954.
- Calver CR & Walter MR (2000) The late Neoproterozoic Grassy Group of King Island, Tasmania: correlation and palaeogeographic significance. *Precam. Res.* **100**, 299–312.
- Chandler MA & Sohl LE (2000) Climate forcings and the initiation of low-latitude ice sheets during the Neoproterozoic Varanger glacial interval. *J. Geophys. Res.* **105**, 20,737–20,756.
- Dempster TJ, Rogers G, Tanner PWG, Bluck BJ, Muir RJ, Redwood SD, Ireland TR & Paterson BA (2000) Timing of deposition, orogenesis and glaciation within the Dalradian rocks of Scotland: constraints from U-Pb ages. *J. Geol. Soc., Lond.* **159**, 83–94.
- Evans DAD (2000) Stratigraphic, geochronological, and paleomagnetic constraints upon the Neoproterozoic climatic paradox. *Am. J. Sci.* **300**, 347–433.
- Evans DAD, Li ZX, Kirschvink JL & Wingate MTD (2000) A high-quality mid-Neoproterozoic paleomagnetic pole from South China, with implications for ice ages and the breakup configuration of Rodinia. *Precam. Res.* **100**, 313–334.
- Fairchild IJ, Spiro B, Herrington PM & Song TR (2000) Controls on Sr and C isotope compositions of Neoproterozoic Sr-rich limestones of East Greenland and North China, in Grotzinger JP & James NP (eds) *Carbonate Sedimentation and Diagenesis in the Evolving Precambrian World*. SEPM (Society for Sedimentary Geology) Sp. Publ. **67**, Tulsa, OK, pp. 297–313.
- Frimmel HE (2000) The Pan-African Gariiep Belt in southwestern Namibia and western South Africa. *Comm. Geol. Surv. Namibia* **12**, 197–209.
- Gorjan P, Veevers JJ & Walter MR (2000) Neoproterozoic sulfur-isotope variations in Australia and global implications. *Precam. Res.* **100**, 151–179.

- Grotzinger JP & James NP (2000) Precambrian carbonates: evolution of understanding, in Grotzinger JP & James NP (eds) *Carbonate Sedimentation and Diagenesis in the Evolving Precambrian World*. SEPM (Society for Sedimentary Geology) Sp. Publ. **67**, Tulsa, OK, pp. 3–20.
- Hoffman PF (2000) Discussion: Vreeland Diamictites—Neoproterozoic glaciogenic slope deposits, Rocky Mountains, northeast British Columbia. *Bull. Can. Petrol. Geol.* **48**, 360–363.
- Hoffman PF & Schrag DP (2000) Snowball Earth. *Sci. Am.* **282**, 68–75.
- Hyde WT, Crowley TJ, Baum SK & Peltier WR (2000) Neoproterozoic ‘snowball Earth’ simulations with a coupled climate/ice-sheet model. *Nature* **405**, 425–429.
- Jasper MJU, Stanistreet IG & Charlesworth EG (2000) Neoproterozoic inversion tectonics, half-graben depositories and glacial controversies, Gariep fold-thrust belt, southern Namibia. *Communs Geol. Surv. Namibia* **12**, 187–196.
- Jenkins GS (2000) Global climate model high-obliquity solutions to the ancient climate puzzles of the faint-young-Sun paradox and low-latitude Proterozoic glaciation. *J. Geophys. Res.* **105**, 7357–7370.
- Li ZX (2000) New palaeomagnetic results from the ‘cap dolomite’ of the Neoproterozoic Walsh Tillite, northwestern Australia. *Precam. Res.* **100**, 359–370.
- Labotka TC, Bergfeld D & Nabelek PI (2000) Two diamictites, two cap carbonates, two $\delta^{13}\text{C}$ excursions, two rifts: The Neoproterozoic Kingston Peak Formation, Death Valley, California: comment and reply. *Geology* **28**, 191.
- Lottermoser BG & Ashley PM (2000) Geochemistry, petrology and origin of Neoproterozoic ironstones in the eastern part of the Adelaide Geosyncline, *Precam. Res.* **101**, 49–67.
- Kempf O, Kellerhals P, Lowrie W & Matter A (2000) Paleomagnetic directions in Late Precambrian glaciomarine sediments of the Mirbat Sandstone Formation, Oman. *Earth and Planet. Sci. Lett.* **175**, 181–190.
- Kirschvink JL, Gaidos EJ, Bertani LE, Beukes NJ, Gutsmer J, Maepa LN & Steinberger RE (2000) Paleoproterozoic snowball Earth: extreme climatic and geochemical global change and its biological consequences. *Proc. Natl Acad. Sci. USA* **97**, 1400–1405.
- McKay CP (2000) Thickness of tropical ice and photosynthesis on a snowball Earth. *Geophys. Res. Lett.* **27**, 2153–2156.
- McKirdy DM, Burgess JM, Lemon NM, Yu X, Cooper AM, Gostin VA, Jenkins RJF & Both RA (2001) A chemostratigraphic overview of the late Cryogenian interglacial sequence in the Adelaide fold-thrust belt, South Australia. *Precam. Res.* **106**, 149–186.
- McMechan ME (2000) Vreeland Diamictites—Neoproterozoic glaciogenic slope deposits, Rocky Mountains, northeast British Columbia. *Bull. Can. Petrol. Geol.* **48**, 246–261.
- McMechan ME (2000) Reply to discussion: Vreeland Diamictites—Neoproterozoic glaciogenic slope deposits, Rocky Mountains, northeast British Columbia. *Bull. Can. Petrol. Geol.* **48**, 364–366.
- Pavlov AA, Kasting JF, Brown LL, Rages KA & Freedman R (2000) Greenhouse warming by CH_4 in the atmosphere of early Earth. *J. Geophys. Res.* **105**, 11,981–11,990.
- Porada H & Berhorst V (2000) Towards a new understanding of the Neoproterozoic-Early Paeozoic Lufilian and northern Zambezi Belts in Zambia and the Democratic Republic of Congo. *J. Afr. Earth Sci.* **30**, 727–771.
- Prave AR (2000) Two diamictites, two cap carbonates, two $\delta^{13}\text{C}$ excursions, two rifts: The Neoproterozoic Kingston Peak Formation, Death Valley, California: comment and reply. *Geology* **28**, 192.
- Preiss WV (2000) The Adelaide Geosyncline of South Australia and its significance in Neoproterozoic continental reconstruction. *Precam. Res.* **100**, 21–63.
- Rice AHN & Hofmann C-C (2000) Evidence for a glacial origin of Neoproterozoic III striations at Oaibaccannjar’ga, Finnmark, northern Norway. *Geol. Mag.* **137**, 355–366.
- Runnegar B (2000) Loophole for snowball Earth. *Nature* **405**, 403–404.

- Thompson MD & Bowring SA (2000) Age of the Squantum “tillite”, Boston Basin, Massachusetts: U-Pb zircon constraints on terminal Neoproterozoic glaciation. *Am. J. Sci.* **300**, 630–655.
- Santos RV, de Alvarenga CJS, Dardenne MA, Sial A, & Ferreira VP (2000) Carbon and oxygen isotope profiles across Meso-Neoproterozoic limestones from central Brazil: Mabuí and Paraná groups. *Precam. Res.* **104**, 107–122.
- Vincent WF, Howard-Williams C (2000) Life on Snowball Earth. *Science* **287**(5462), 2421.
- Vincent WF, Gibson JAE, Pienitz R, Villeneuve V, Broady PA, Hamilton PB & Howard-Williams C (2000) Ice shelf microbial ecosystems in the High Arctic and implications for life on snowball Earth. *Naturwissenschaften* **87**, 137–141.
- Walter MR & Veevers JJ (2000) Neoproterozoic of Australia, in Veevers, J.J. (ed.) *Billion-Year Earth History of Australia and Neighbours in Gondwanaland*. Gemoc Press, Sydney, pp. 131–153.
- Walter MR, Veevers JJ, Calver CR, Gorjan P & Hill AC (2000) Dating the 840–544 Ma Neoproterozoic interval by isotopes of strontium, carbon, and sulfur in seawater, and some interpretive models. *Precam. Res.* **100**, 371–433.
- Williams GE (2000) Geological constraints on the Precambrian history of Earth’s rotation and the Moon’s orbit. *Rev. Geophys.* **38**(1), 37–59.
- Williams GE & Schmidt P (2000) Proterozoic equatorial glaciation: Has ‘snowball Earth’ a snowball’s chance? *The Australian Geologist* **117**, 21–25.

1999: 19 3 2 14 2 2 1 9 (482)

- Bau M, Romer RL, Lüders V & Beukes NJ (1999) Pb, O, and C isotopes in silicified Moodraai dolomite (Transvaal Supergroup, South Africa): implications for the composition of Paleoproterozoic seawater and ‘dating’ the increase of oxygen in the Precambrian atmosphere. *Earth Planet. Sci. Lett.* **174**, 43–57.
- Canfield DE & Raiswell R (1999) The evolution of the sulfur cycle. *Am. J. Sci.* **299**, 697–723.
- Christie-Blick N, Sohl LE & Kennedy MJ (1999) Considering a Neoproterozoic snowball Earth. *Science* **284** online, <http://www.sciencemag.org/cgi/content/full/284/5417/1087a>
- Crowell JC (1999) Pre-Mesozoic ice ages: their bearing on understanding the climate system. Geological Society of America, Mem. **192**, Boulder, CO, 106 p.
- Gaidos EJ, Nealson KH & Kirschvink JL (1999) Life in ice-covered oceans. *Science* **284**, 1631–1633.
- Hoffman PF (1999) The break-up of Rodinia, birth of Gondwana, true polar wander and the snowball Earth. *J. Afr. Earth Sci.* **28**, 17–33.
- Hoffman PF & Schrag DP (1999) Response: Considering a Neoproterozoic snowball Earth. *Science* **284** online, <http://www.sciencemag.org/cgi/content/full/284/5417/1087a>
- Hoffman PF (1999) Snowball Earth theory still stands. *Nature* **400**, 708.
- Hoffman PF & Maloof AC (1999) Glaciation: the snowball theory still holds water. *Nature* **397**, 384.
- Jacobsen SB & Kaufman AJ (1999) The Sr, C and O isotopic evolution of Neoproterozoic seawater. *Chem. Geol.* **161**, 37–57.
- Jenkins GS & Smith SR (1999) GCM simulations of Snowball Earth conditions during the late Proterozoic. *Geophys. Res. Lett.* **26**, 2263–2266.
- Martin D McB (1999) Depositional setting and implications of Paleoproterozoic glaciomarine sedimentology in the Hamersley Province, Western Australia. *Geol. Soc. Am. Bull.* **111**, 189–203.
- Martins-Neto MA, Gomes NS, Hercos CM & Reis L (1999) Fácies glácio-continentais (outwash plain) na megasequência Macaúbas, norte da serra da Agua Fria (MG). *Revista Brasileiras Geociencias* **29**, 281–292.
- Myrow PM & Kaufman AJ (1999) A newly discovered cap carbonate above Varanger-age glacial deposits in Newfoundland, Canada. *J. Sed. Res.* **69**, 784–793.
- Pais MA, Le Mouél JL, Lambeck K & Poirier JP (1999) Late Precambrian paradoxical glaciation and obliquity of the Earth—a discussion of dynamical constraints. *Earth Planet. Sc. Lett.* **174**, 155–171.

- Prave AR (1999) Two diamictites, two cap carbonates, two $\delta^{13}\text{C}$ excursions, two rifts: The Neoproterozoic Kingston Peak Formation, Death Valley, California. *Geology* **27**, 339–342.
- Schmidt PW & Williams GE (1999) Paleomagnetism of the Paleoproterozoic hematitic breccia and paleosol at Ville-Marie, Québec: further evidence for the low paleolatitude of Huronian glaciation. *Earth Planet. Sci. Lett.* **172**, 273–285.
- Sohl LE, Christie-Blick N & Kent DV (1999) Paleomagnetic polarity reversals in Marinoan (ca 600 Ma) glacial deposits of Australia: implications for the duration of low-latitude glaciation in Neoproterozoic time. *Geol. Soc. Am. Bull.* **111**, 1120–1139.
- Stoker MS, Howe JA & Stoker SJ (1999) Late Vendian–?Cambrian glacially influenced deep-water sedimentation, Macduff Slate Formation (Dalradian), NE Scotland. *J. Geol. Soc., Lond.* **156**, 55–61.
- Visser JNJ (1999) Lithostratigraphy of the Makganyene Formation (Postmasburg Group). South African Committee for Stratigraphy, Lithostratigraphic Series No. 34, 1–7.
- 1998: 22 2 2 19 4 3 0 12**
- Bailey CM & Peters SE (1998) Glacially influenced sedimentation in the late Neoproterozoic Mechum River Formation, Blue Ridge province, Virginia. *Geology* **26**, 623–626.
- Benan CAA & Deynoux M (1998) Facies analysis and sequence stratigraphy of Neoproterozoic platform deposits in Adrar of Mauritania, Taoudeni basin, West Africa. *Geol. Rundsch.* **87**, 283–302.
- Calver CR (1998) Isotope stratigraphy of the Neoproterozoic Togari Group, Tasmania. *Austral. J. Earth Sci.* **45**, 865–874.
- Flicoteaux R & Trompette R (1998) Cratonic and foreland Early Cambrian phosphorites of West Africa: palaeoceanographical and climatical contexts. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **139**, 107–120.
- Grey K & Corkeron M (1998) Late Neoproterozoic stromatolites in glacial successions of the Kimberley region, Western Australia: evidence for a younger Marinoan glaciation. *Precam. Res.* **92**, 65–87.
- Hoffman PF, Kaufman JA & Halverson GP (1998) Comings and goings of global glaciations on a Neoproterozoic carbonate platform in Namibia. *GSA Today* **8**, 1–9.
- Hoffman PF, Kaufman AJ, Halverson GP & Schrag DP (1998) A Neoproterozoic snowball Earth. *Science* **281**, 1342–1346.
- Hoffman PF, Schrag DP, Halverson GP & Kaufman JA (1998) Response: An early Snowball Earth? *Science* **282**, 1645–1646.
- Jenkins GS & Frakes LA (1998) GCM sensitivity test using increased rotation rate, reduced solar forcing and orography to examine low latitude glaciation in the Neoproterozoic. *Geophys. Res. Lett.* **25**, 3525–3528.
- Jenkins GS & Scotese CR (1998) An early Snowball Earth? *Science* **282**, 1645.
- Kennedy MJ, Runnegar B, Prave AR, Hoffmann K-H & Arthur MA (1998) Two or four Neoproterozoic glaciations? *Geology* **26**, 1059–1063.
- Misi A & Veizer J (1998) Neoproterozoic carbonate sequences of the Una Group, Irecê Basin, Brazil: chemostratigraphy, age and correlations. *Precam. Res.* **89**, 87–100.
- Oglesby RJ & Ogg JG (1998) The effect of large fluctuations in obliquity on climates of the late Proterozoic. *Palaeoclimates* **2**, 293–316.
- Pierrehumbert RT & Erlick C (1998) On the scattering greenhouse effect of CO₂ ice clouds. *J. Atmos. Sci.* **55**, 1897–1903.
- Rumble D & Yui T-F (1998) The Qinglongshan oxygen and hydrogen isotope anomaly near Donghai in Jiangsu Province, China. *Geochim. Cosmochim. Acta* **62**, 3307–3321.
- Saylor BZ, Kaufman AJ, Grotzinger JP & Urban F (1998) A composite reference section for terminal Proterozoic strata of southern Namibia. *Journal of Sed. Res.* **68**, 1223–1235.

- Trompette R, de Alvarenga CJA & Wade D (1998) Geological evolution of the Neoproterozoic Corumbá graben system (Brazil). Depositional context of the stratified Fe and Mn ores of the Jacadigo Group. *J. S. Am. Earth Sci.* **11**, 587–597.
- Tsikos H & Moore JM (1998) The Kalahari manganese field: an enigmatic association of iron and manganese. *S. Afr. J. Geol.* **101**, 287–290.
- Williams DM, Kasting JF & Frakes LA (1998) Low-latitude glaciation and rapid changes in the Earth's obliquity explained by obliquity–oblateness feedback. *Nature* **396**, 453–455.
- Williams GE (1998) Precambrian tidal and glacial deposits: implications for Precambrian Earth-Moon dynamics and paleoclimate. *Sed. Geol.* **120**, 55–74.
- Williams GE (1998) Late Neoproterozoic periglacial aeolian sand sheet, Stuart Shelf, South Australia. *Austral. J. Earth Sci.* **45**, 733–741.
- Young GM, von Brunn V, Gold DJC & Minter WEL (1998) Earth's oldest reported glaciation: physical and chemical evidence from the Archean Mozoan Group (~2.9 Ga) of South Africa. *J. Geol.* **106**, 523–538.
- Zheng YF, Fu B, Li YL, Xiao YL, Li SG (1998) Oxygen and hydrogen isotope geochemistry of ultrahigh pressure eclogites from the Dabie Mountains and the Sulu terrane. *Earth Planet. Sci. Lett.* **155**, 113–129.
- 1997: 15 1 0 14 1 3 0 10**
- Edwards MB (1997) Discussion of glacial or non-glacial origin of the Bigganjargga tillite, Finnmark, northern Norway. *Geol. Mag.* **134**, 873–876.
- Evans DAD, Beukes NJ & Kirschvink JL (1997) Low-latitude glaciation in the Palaeoproterozoic era. *Nature* **386**, 262–266.
- Bertrand-Sarfati J, Flicoteaux R, Moussine-Pouchkine A & Aït Kaci Ahmed A (1997) Lower Cambrian apatitic stromatolites and phospharenites related to the glacio-eustatic cratonic rebound (Sahara, Algeria). *J. Sed. Res.* **67**, 957–974.
- Christie-Blick N (1997) Neoproterozoic sedimentation and tectonics in west-central Utah. *BYU Geol. Studies* **42**, 1–30.
- Kaufman AJ, Knoll AH & Narbonne GM (1997) Isotopes, ice ages, and terminal Proterozoic earth history. *Proc. Natl Acad. Sci. USA* **94**, 6600–6605.
- Moussine-Pouchkine A & Bertrand-Sarfati J (1997) Tectonosedimentary subdivisions in the Neoproterozoic to Early Cambrian cover of the Taoudeni Basin (Algeria-Mauritania-Mali). *J. Afr. Earth Sci.* **24**, 425–443.
- Néron de Surgy O & Laskar J (1997) On the long term evolution of the spin of the Earth. *Astron. Astrophys.* **318**, 975–989.
- Park JK (1997) Paleomagnetic evidence for low-latitude glaciation during deposition of the Neoproterozoic Rapitan Group, Mackenzie Mountains, N.W.T., Canada. *Can. J. Earth Sci.* **34**, 34–49.
- Panahi A & Young GM (1997) A geochemical investigation into the provenance of the Neoproterozoic Port Askaig Tillite, Dalradian Supergroup, western Scotland. *Precam. Res.* **85**, 81–96.
- Ross GM & Villeneuve ME (1997) U-Pb geochronology of stranger stones in Neoproterozoic diamictites, Canadian Cordillera: implications for provenance and ages of deposition, in *Radiogenic Age and Isotopic Studies: Report 10*. Geological Survey of Canada, Curr. Res. 1997-F, pp. 141–155.
- Rui ZQ & Piper JDA (1997) Palaeomagnetic study of Neoproterozoic glacial rocks of the Yangtze Block: palaeolatitude and configuration of South China in the late Proterozoic Supercontinent. *Precam. Res.* **85**, 173–199.

Shields G, Stille P, Brasier MD & Atudorei N-V (1997) Stratified oceans and oxygenation of the late Precambrian environment: a post glacial geochemical record from the Neoproterozoic of W. Mongolia. *Terra Nova* **9**, 218–222.

Walter MR & Veevers JJ (1997) Australian Neoproterozoic paleogeography, tectonics, and supercontinental connections. *AGSO (Australian Geological Survey Organization) J. Austral. Geol. Geophys.* **17**(1), 73–92.

Williams GE & Schmidt PW (1997) Paleomagnetism of the Palaeoproterozoic Gowganda and Lorrain formations, Ontario: low paleolatitude for Huronian glaciation. *Earth Planet. Sci. Lett.* **153**, 157–169.

Young GM (1997) Tectonic and glacioeustatic controls on postglacial stratigraphy: Proterozoic examples, in Martini IP (ed.) *Late Glacial and Postglacial Environmental Changes: Quaternary, Carboniferous-Permian and Proterozoic*. Oxford University Press, New York, pp. 249–267.

1996: 10 1 1

Cornell DH, Schütte SS & Eglinton BL (1996) The Ongeluk basaltic andesite formation in Griqualand West, South Africa: submarine alteration in a 2222 Ma Proterozoic sea. *Precam. Res.* **79**, 101–123.

Dyson LA (1996) Stratigraphy of the Burra and Umberatana Groups in the Willippa Anticline, central Flinders Ranges. *Quart. Geol. Notes Geol. Surv. S. Austral.* **129**, 10–26.

Fedonkin MA (1996) Cold water cradle of animal life. *Palaeontol. J.* **30**, 669–673.

Fitches WR, Pearce NJG, Evans JA & Muir RJ (1996) Provenance of late Proterozoic Dalradian tillite clasts, Inner Hebrides, Scotland, in Brewer TS (ed.) *Precambrian crustal evolution in the North Atlantic region*. Geological Society, London, Sp. Publ. **112**, pp. 367–377.

Frimmel HE, Klötzli US & Siegfried PR (1996) New Pb-Pb single zircon age constraints on the timing of Neoproterozoic glaciation and continental break-up in Namibia. *J. Geol.* **104**, 459–469.

Hoffmann K-H & Prave AR (1996) A preliminary note on a revised subdivision and regional correlation of the Otavi Group based on glaciogenic diamictites and associated cap dolomites. *Communs Geol. Surv. Namibia* **11**, 77–82.

Jensen PA & Wulff-Pedersen E (1996) Glacial or non-glacial origin for the Bigganjargga tillite, Finnmark, northern Norway. *Geol. Mag.* **133**, 137–145.

Kennedy MJ (1996) Stratigraphy, sedimentology, and isotopic geochemistry of Australian Neoproterozoic postglacial cap dolostones: deglaciation, $\delta^{13}\text{C}$ excursions, and carbonate precipitation. *J. Sed. Res.* **66**, 1050–1064.

Khomentovsky VV & Gibsher AS (1996) The Neoproterozoic-lower Cambrian in northern Gobi-Altay, western Mongolia: regional setting, lithostratigraphy and biostratigraphy. *Geol. Mag.* **133**, 371–390.

Lindsay JF, Brasier MD, Shields G, Khomentovsky VV & Bat-Ireedui YA (1996) Glacial facies associations in a Neoproterozoic back-arc setting, Zavkhan Basin, western Mongolia. *Geol. Mag.* **133**, 391–402.

Trompette R (1996) Temporal relations between cratonization and glaciation: the Vendian–Early Cambrian glaciation in western Gondwana. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **123**, 373–383.

Williams GE (1996) Soft-sediment deformation structures from the Marinoan glacial succession, Adelaide foldbelt: implications for the palaeolatitude of late Neoproterozoic glaciation. *Sed. Geol.* **106**, 165–175.

1995: 13 1 1

Bertrand-Sarfati J, Moussine-Pouchkine A, Amard B & Ait Kaci Ahmed A (1995) First Ediacaran fauna found in western Africa and evidence for an Early Cambrian glaciation. *Geology* **23**, 133–136.

- Christie-Blick N, Dyson IA. & von der Borch CC (1995) Sequence stratigraphy and the interpretation of Neoproterozoic earth history. *Precam. Res.* **73**, 3–26.
- Curry, JA, Schramm JL & Ebert EE (1995) Sea ice-albedo climate feedback mechanism. *Journal of Climate* **8**, 240–247.
- Fairchild IJ & Hambrey, MJ (1995) Vendian basin evolution in East Greenland and NE Svalbard. *Precam. Res.* **73**, 217–233.
- Germis GJB (1995) The Neoproterozoic of southwestern Africa, with emphasis on platform stratigraphy and paleontology. *Precam. Res.* **73**, 137–151.
- Grotzinger JP & Knoll AH (1995) Anomalous carbonate precipitates: is the Precambrian the key to the Permian? *Palaios* **10**, 578–596.
- Iyer SS, Babinski M, Krouse HR & Chemale F Jr (1995) Highly ¹³C-enriched carbonate and organic matter in the Neoproterozoic sediments of the Bambuí Group, Brazil. *Precam. Res.* **73**, 271–282.
- Schmidt PW & Williams GE (1995) The Neoproterozoic climatic paradox: Equatorial paleolatitude for Marinoan glaciation near sea level in South Australia. *Earth Planet. Sci. Lett.* **134**, 107–124.
- Torsvik TH, Lohmann KC & Sturt BA (1995) Vendian glaciations and their relation to the dispersal of Rodinia: paleomagnetic constraints. *Geology* **23**, 727–730.
- Vidal G & Moczydklowska M (1995) The Neoproterozoic of Baltica—stratigraphy, palaeobiology and general geological evolution. *Precam. Res.* **73**, 197–216.
- Walter MR, Veevers JJ, Calver CR & Grey K (1995) Neoproterozoic stratigraphy of the Centralian Superbasin. *Precam. Res.* **73**, 173–195.
- Williams GE, Schmidt PW & Embleton BJJ (1995) Comment on ‘The Neoproterozoic (1000–540 Ma) glacial intervals: no more snowball earth? By Joseph G. Meert and Rob van der Voo. *Earth Planet. Sci. Lett.* **131**, 115–122.
- Young GM (1995) Are Neoproterozoic glacial deposits preserved on the margins of Laurentia related to the fragmentation of two supercontinents? *Geology* **23**, 153–156.
- 1994: 21 1m 2**
- Brookfield ME (1994) Problems in applying preservation, facies and sequence models to Sinian (Neoproterozoic) glacial sequences in Australia and Asia. *Precam. Res.* **70**, 113–143.
- Carver JH & Vardavas IM (1994) Precambrian glaciations and the evolution of the atmosphere. *Annales Geophysicae* **12**, 674–682.
- Crossing AR & Gostin VA (1994) Isotopic signatures of carbonates associated with Sturtian (Neoproterozoic) glacial facies, central Flinders Ranges, South Australia, in Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 165–175.
- Dalziel IWD (1994) Precambrian Scotland as a Laurentia–Gondwana link: origin and significance of cratonic promontories. *Geology* **22**, 589–592.
- Dyson IA & von der Borch CC (1994) Sequence stratigraphy of an incised-valley fill: the Neoproterozoic Seacliff Sandstone, Adelaide Geosyncline, South Australia, in Dalrymple RW, Boyd R & Zaitlin BA (eds) *Incised-valley systems: origin and sedimentary sequences*. SEPM (Society for Sedimentary Geology), Sp. Publ. **51**, Tulsa, OK, pp. 209–222.
- Eyles N & Young GM (1994) Geodynamic controls on glaciation in Earth history, in Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 1–28.
- Ge DK & Cui ZJ (1994) Basal melt-out structure in the Luoquan Formation and its significance. *Acta Geol. Sinica* **7**, 183–193.
- Graf JL Jr, O'Connor EA & Van Leeuwen P (1994) Rare earth element evidence of origin and depositional environment of Late Proterozoic ironstone beds and manganese-oxide deposits, SW Brazil and SE Bolivia. *J. S. Am. Earth Sci.* **7**, 115–133.

- Link PK, Miller JMG & Christie-Blick N (1994) Glacial-marine facies in a continental rift environment: Neoproterozoic rocks of the western United States Cordillera, *in* Deynoux M, Miller JMB, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 29–46.
- Lu SN & Gao ZJ (1994) Neoproterozoic tillite and tilloid in the Aksu area, Tarim Basin, Xinjiang Uygur Autonomous Region, northwest China, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 95–100.
- Miller JMG (1994) The Neoproterozoic Konnarock Formation, southern Virginia, USA: glaciolacustrine facies in a continental rift, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 47–59.
- Meert JG & van der Voo R (1994) The Neoproterozoic (1000–540 Ma) glacial intervals: no more snowball Earth? *Earth Planet. Sci. Lett.* **123**, 1–13.
- Misi A & Kyle JR (1994) Upper Proterozoic carbonate stratigraphy, diagenesis, and stromatolitic phosphorite formation, Irecê Basin, Bahia, Brazil. *J. Sed. Res.* **A64**, 299–310.
- Proust J-N & Deynoux M (1994) Marine to non-marine sequence architecture of an intracratonic glacially related basin: late Proterozoic of the West African platform in western Mali, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *The Earth's glacial record: facies models and geodynamic evolution*. Cambridge University Press, Cambridge, pp. 121–145.
- Qi RZ (1994) Environmental evolution during the early phase of Late Proterozoic glaciation, Hunan, China, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 260–266.
- Trompette R (1994) *Geology of Western Gondwana (2000–500 Ma): Pan-African–Brasiliano Aggregation of South America and Africa*. Balkema, Amsterdam, 350 p.
- Williams GE (1994) History of Earth's rotation and the Moon's orbit: a key datum from Precambrian tidal strata in Australia. *Austral. J. Astron.* **5**(4), 135–147.
- Williams GE (1994) The enigmatic Late Proterozoic glacial climate: an Australian perspective, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 146–164.
- Yang YQ & Wu RT (1994) Deformation structures in the tillites of Luoquan Formation. *Geoscience Journal of the Graduate School of the China University of Geosciences* **8**, 43–48.
- Young GM (1994) Impacts, tillites, and the breakup of Gondwanaland: a discussion. *J. Geol.* **102**, 439–456.
- Zheng ZC, Li YZ, Lu SN & Li HK (1994) Lithology, sedimentology and genesis of the Zhengmuguan Formation of Ningxia, China, *in* Deynoux M, Miller JMG, Domack EW, Eyles N, Fairchild IJ & Young GM (eds) *Earth's Glacial Record*. Cambridge University Press, Cambridge, pp. 101–108.

1993: 18 2m 2

- Crowley TJ & Baum SK (1993) Effect of decreased solar luminosity on Late Precambrian ice extent. *J. Geophys. Res.* **98**, 16,723–16,732.
- Eyles N (1993) Earth's glacial record and its tectonic setting. *Earth-Sci. Rev.* **35**, 1–248.
- Fairchild IJ (1993) Balmy shores and ice wastes: the paradox of carbonates associated with glacial deposits in Neoproterozoic times. *Sedimentol. Rev.* **1**, 1–16.
- Gresse PG & Germs GJB (1993) The Nama foreland basin: sedimentation, major unconformity bounded sequences and multisided active margin advance. *Precam. Res.* **63**, 247–272.
- Harker RI (1993) Fracture patterns in clasts of diamictites (? Tillites). *J. Geol. Soc., Lond.* **150**, 251–254.
- Harland WB, Hambrey MJ & Waddams P (1993) Vendian Geology of Svalbard. *Norsk-Polarinstitutt Skrifter* **193**, 150 p.

- Hegenberger W (1993) Stratigraphy and sedimentology of the Late Precambrian Witvlei and Nama Groups, East of Windhoek. Geological Survey of Namibia, Mem. **17**, 82 p.
- Johnston JD (1993) Ice wedge casts in the Dalradian of South Donegal—evidence for subaerial exposure of the Boulder Bed. *Irish J. Earth Sci.* **12**, 13–26.
- Kaufman AJ, Jacobsen SB & Knoll AH (1993) The Vendian record of Sr and C isotopic variations in seawater: implications for tectonic and paleoclimate. *Earth. Planet. Sci. Lett.* **120**, 409–430.
- Klein C & Beukes NJ (1993) Sedimentology and geochemistry of the glaciogenic Late Proterozoic Rapitan iron-formation in Canada. *Econ. Geol.* **88**, 542–565.
- Link PK, Christie-Blick N, Devlin WJ, Elston DP, Horodyski RJ, Levy M, Miller JMG, Pearson RC, Prave A, Stewart JH, Winston D, Wright LA & Wrucke CT (1993) Middle and Late Proterozoic stratified rocks of the western U.S. Cordillera, Colorado Plateau, and Basin and Range province, in Reed JC Jr, Bickford ME, Link PK, Rankin DW, Sims PK & Van Schmus WR (eds) *Precambrian: Conterminous U.S.* Geological Society of America, Boulder, *The Geology of North America*, v. C-2, p. 463–595.
- Overbeck VR, Marshall JR & Aggarwal H (1993) Impacts, tillites, and the breakup of Gondwanaland. *J. Geol.* **101**, 1–19.
- Rampino MR (1993) Tillites, diamictites, and ballistic ejecta of large impacts. *J. Geol.* **101**, 675–679.
- Rankin DW (1993) The volcanogenic Mount Rogers Formation and the overlying glaciogenic Konnarock Formation—two late Proterozoic units in southwestern Virginia. United States Geological Survey, Bull. 2029, 26 p.
- Roscoe SM & Card KD (1993) The reappearance of the Huronian in Wyoming: rifting and drifting of ancient continents. *Can. J. Earth Sci.* **30**, 2475–2480.
- Von Brunn V & Gold DJC (1993) Diamictite in the Archean Pongola sequence of southern Africa. *J. Afr. Earth Sci.* **16**, 367–374.
- Walsh KJ & Sellers WD (1993) Response of a global climate model to a thirty percent reduction of the solar constant. *Glob. Planet. Change* **8**, 219–230.
- Williams GE (1993) History of the Earth's obliquity. *Earth-Sci. Rev.* **34**, 1–45.

1992: 9 0 1

- de Alvarenga CJS & Trompette R (1992) Glacially influenced sedimentation in the Later Proterozoic of the Paraguay belt (Mato Grosso, Brazil). *Palaeogeog. Palaeoclimatol. Palaeoecol.* **92**, 85–105.
- Beukes N & Klein C (1992) Models for iron-formation deposition, in Schopf JW & Klein C (eds) *The Proterozoic Biosphere*. Cambridge University Press, Cambridge, pp. 147–151.
- Caldeira K & Kasting JF (1992) Susceptibility of the early Earth to irreversible glaciation caused by carbon dioxide clouds. *Nature* **359**, 226–228.
- Chumakov NM (1992) Problems of old glaciations (Pre-Pleistocene glaciogeology in the USSR). *Soviet Scientific Reviews, Geology Section* **1**(3), Harwood, New York, 208 p.
- Hambrey MJ (1992) Secrets of a tropical ice age. *New Scientist*, 1 Feb., 42–49.
- Hamdi B (1992) Late Precambrian glacial deposits in central Iran. *29th Intl Geol. Congr. Abstr.* **2**, 263, Kyoto, Japan.
- Kirschvink JL (1992) Late Proterozoic low-latitude glaciation: the snowball Earth, in Schopf JW & Klein C (eds) *The Proterozoic Biosphere*, Cambridge University Press, Cambridge, pp. 51–52.
- Urban H, Stribny B & Lippolt HJ (1992) Iron and manganese deposits of the Urucum District, Mato Grosso do Sul, Brazil. *Econ. Geol.* **87**, 1375–1892.
- Zhang QR (1992) Geologic models of ice keel scours, with an early Sinian example. *Precam. Res.* **59**, 315–323.

1991: 11 2 1

- Aitken JD (1991) Two late Proterozoic glaciations, Mackenzie Mountains, northwestern Canada. *Geology* **19**, 445–448.

- Aitken JD (1991) The Ice Brook Formation and post-Rapitan, late Proterozoic glaciation, Mackenzie Mountains, Northwest Territories. Geological Survey of Canada, Bull. **404**, 43 p.
- Culver SJ & Hunt D (1991) Lithostratigraphy of the Precambrian-Cambrian boundary sequence in the southwestern Taoudeni Basin, West Africa. *J. Afr. Earth Sci.* **13**, 407–413.
- Deynoux M, Proust JN & Simon B (1991) Late Proterozoic glacially controlled shelf sequences in Western Mali (West Africa). *J. Afr. Earth Sci.* **12**, 181–198.
- DiBona PA (1991) A previously unrecognized Late Proterozoic succession: Upper Wilpena Group, northern Flinders Ranges, South Australia. *Geological Survey of South Australia, Quart. Geol. Notes* **117**, 2–9.
- Germs GJB & Gresse PG (1991) The foreland basin of the Damara and Gariiep orogens in Namaqualand and southern Namibia: stratigraphic correlations and basin dynamics. *S. Afr. J. Geol.* **94**, 159–169.
- Hambrey MJ, Fairchild IJ, Glover BW, Stewart AD, Treagus JE & Winchester JA (1991) The Late Precambrian geology of the Scottish Highlands and Islands. *Geologists' Association Guide* **44**, London, 130 p.
- Jenkins RJF (1991) The early environment, in Bryant C (ed.) *Metazoan Life without Oxygen*. Chapman & Hall, New York.
- Kaufman AJ, Hayes JM, Knoll AH & Germs JB (1991) Isotopic compositions of carbonates and organic carbon from upper Proterozoic successions in Namibia: stratigraphic variation and the effects of diagenesis and metamorphism. *Precam. Res.* **49**, 301–327.
- Schmidt PW, Williams GE & Embleton BJJ (1991) Low palaeolatitude of Late Proterozoic glaciation: early timing of remanence in haematite of the Elatina Formation, South Australia. *Earth Planet. Sci. Lett.* **105**, 355–367.
- Williams GE (1991) Upper Proterozoic tidal rhythmites, South Australia: sedimentary features, deposition, and implications for the Earth's paleorotation, in Smith DG, Reinson GE, Zaitlin BA & Rahmani RA (eds) *Clastic Tidal Sedimentology*. Canadian Society of Petroleum Geologists, Mem. **16**, Calgary, Alberta, pp. 161–178.
- Worseley TR & Kidder DL (1991) First-order coupling of paleogeography and CO₂, with global surface temperature and its latitudinal contrast. *Geology* **19**, 1161–1164.
- Young GM & Gostin VA (1991) Late Proterozoic (Sturtian) succession of the North Flinders Basin, South Australia: an example of temperate glaciation in an active rift setting, in Anderson JB & Ashley GM (eds) *Glacial Marine Sedimentation: Paleoclimatic Significance*. Geological Society of America, Boulder, CO, pp. 207–222.
- 1990: 13 1**
- Alsop GI & Hutton DHW (1990) A review and revision of Dalradian stratigraphy in central and southern Donegal, Ireland. *Irish J. Earth Sci.* **10**, 181–198.
- Bernstein L & Young GM (1990). Depositional environments of the Early Proterozoic Espanola Formation, Ontario, Canada. *Can. J. Earth Sci.* **27**, 539–551.
- d'Agrella-Filho MS, Pacca IG, Teixeira W, Onstott TC & Renne PR (1990) Paleomagnetic evidence for the evolution of Meso- to Neoproterozoic glaciogenic rocks in central-eastern Brazil. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **80**, 255–265.
- Deubner F-L (1990) Discussion of Late Precambrian tidal rhythmites in South Australia and the history of the Earth's paleorotation. *J. Geol. Soc., Lond.* **147**, 1083–1084.
- Fairchild IJ & Spiro B (1990) Carbonate minerals in glacial sediments: geochemical clues to palaeoenvironment, in Dowdeswell JA & Scourse JD (eds) *Glacimarine Environments: Processes and Sediments*. Geological Society of London, Sp. Publ. **53**, pp. 201–216.
- Gibsher AS & Khomentovsky VV (1990) The section of the Tsagaan Olum and Bayan Gol Formations of the Vendian—Lower Cambrian in the Dzabkhan zone of Mongolia, in Khomentovsky VV,

- Gibsher AS & Karlova GA (eds) *The Late Precambrian and Early Paleozoic of Siberia*. Institut Geologii I Geofiziki, Sibirskoe Otdelenie, Akademiya Nauk SSSR, Novosibirsk, pp. 79–91.
- Ilyin AV (1990) Proterozoic supercontinent, its latest Precambrian rifting, breakup, dispersal into smaller continents, and subsidence of their margins: evidence from Asia. *Geology* **18**, 1231–1234.
- Lemon NM & Gostin VA (1990) Glacigenic sediments of the late Proterozoic Elatina Formation and equivalents, Adelaide Geosyncline, South Australia, in Jago JB & Moore PS (eds) *The Evolution of a Late Precambrian–Early Paleozoic rift complex: the Adelaide Geosyncline*. Geological Society of South Australia, Sp. Publ. **16**, Adelaide, pp. 149–163.
- Moncrieff ACM & Hambrey MJ (1990) Marginal-marine glacial sedimentation in the late Precambrian succession of East Greenland, in Dowdeswell JA & Scourse JD (eds) *Glacimarine Environments: Processes and Sediments*. Geological Society, London, Sp. Publ. **53**, pp. 387–410.
- Peryt TM, Hoppe A, Bechstädt T, Köster J, Pierre C & Richter DK (1990) Late Proterozoic aragonitic cement crusts, Bambuí Group, Minas Gerais, Brazil. *Sedimentology* **37**, 279–286.
- Proust J-N, Deynoux M & Guillocheau F (1990) *Effets conjugués de l'eustatisme et de l'isostasie sur les plates-formes stables en période glaciaire. Exemple des dépôts glaciaires du Protérozoïque supérieur de l'Afrique de l'Ouest au Mali occidental* [Combined effects of eustatism and isostasy on stable epicratonic platforms during glacial periods with the example of the late Proterozoic glacial deposits in western Mali in West Africa]. *Bull. Soc. géol. France* **6**(4), 637–681.
- Socci AD (1990) Stratigraphic implications of facies within the Boston Basin, in Socci AD, Skehan JW & Smith GW (eds) *Geology of the Composite Avalon Terrane of Southern New England*. Geological Society of America, Sp. Pap. **245**, pp. 55–74.
- Williams GE (1990) Precambrian cyclic rhythmites: solar-climatic or tidal signatures? *Philosophical Trans. R. Soc., Lond. A* **330**, 445–458.
- Williams GE (1990) Tidal rhythmites: key to the history of the Earth's rotation and the Lunar orbit. *J. Phys. Earth* **38**, 475–491.

1989: 12 2 1

- Chumakov NM & Elston DP (1989) The paradox of Late Proterozoic glaciations at low latitudes. *Episodes* **12**, 115–120.
- Deynoux M, Kocurek G & Proust JN (1989) Late Proterozoic periglacial aeolian deposits on the West African Platform, Taoudeni Basin, western Mali. *Sedimentology* **36**, 531–549.
- Eyles N and Eyles CH (1989) Glacially-influenced deep-marine sedimentation of the Late Precambrian Gaskiers Formation, Newfoundland, Canada. *Sedimentology* **36**, 601–620.
- Fairchild IJ, Hambrey MJ, Spiro B & Jefferson TH (1989) Late Proterozoic glacial carbonates in northeast Spitsbergen: new insights into the carbonate-tillite association. *Geol. Mag.* **126**, 469–490.
- Fralick PW & Miall AD (1989) [Sedimentology of the Lower Huronian Supergroup \(Early Proterozoic\), Elliot Lake area, Ontario, Canada. *Sed. Geol.* **63**, 127–153.](#)
- Harker RI & Giegengack R (1989) [Brecciation of clasts in diamictites of the Gowganda Formation, Ontario, Canada. *Geology* **17**, 123–126.](#)
- Hoffmann K-H (1989) New aspects of lithostratigraphic subdivision and correlation of late Proterozoic to early Cambrian rocks of the southern Damara Belt and their correlation with the central and northern Damara Belt and the Gariiep Belt. *Communs Geol. Surv. of S. W. Afr./Namibia* **5**, 59–67.
- [Kasting JF \(1989\) Long-term stability of the Earth's climate. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **75**, 83–95.](#)
- Lindsay JK (1989) Depositional controls on glacial facies associations in a basinal setting, Late Proterozoic, Amadeus Basin, central Australia. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **73**, 205–232.

- Williams GE (1989) Precambrian tidal sedimentary cycles and Earth's paleorotation. *EOS AGU Trans.* **70**, 33, 40–41.
- Williams GE (1989) Tidal rhythmites: geochronometers for the ancient Earth-Moon system. *Episodes* **12**, 162–171.
- Williams GE (1989) Late Precambrian tidal rhythmites in South Australia and the history of the Earth's rotation. *J. Geol. Soc., Lond.* **146**, 97–111.
- Young GM & Gostin VA (1989a) An exceptionally thick late Proterozoic (Sturtian) glacial succession in the Mount Painter area, South Australia. *Geol. Soc. America.*
- Young GM & Gostin VA (1989b) Depositional environment and regional significance of the Serle Conglomerate; a late Proterozoic submarine fan complex, South Australia. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **71**, 237–252.
- Young GM & Gostin VA (1989c) Sturtian glacial deposition in the vicinity of the Yankaninna anticline, North Flinders Basin, South Australia. *Austral. J. Earth Sci.* **37**, 447–458.

1988: 8 2 1 1

- Badenhorst FP (1988) The lithostratigraphy of the Chuos mixtite in part of the southern central zone of the Damara orogen, South West Africa. *Communs Geol. Surv. S. W. Afr./Namibia* **4**, 103–110.
- Cloud P (1988) Oasis in Space: Earth History from the Beginning (Chapter 12. The Longest Winter). W.W. Norton & Co., New York, 508 p.
- Hambrey MJ (1988) Late Proterozoic stratigraphy of the Barents Shelf, in Harland WB & Dowdeswell EK (eds) *The Geological Evolution of the Barents Shelf Region*. Graham & Trotman, pp. 49–72.
- Herrington PM & Fairchild IJ (1988) Carbonate shelf and slope facies evolution prior to Vendian glaciation, central East Greenland, in Gayer RA (ed.) *The Caledonide Geology of Scandinavia*. Graham Trotman, London, pp. 263–273.
- Karfunkel J & Hoppe A (1988) Late Proterozoic glaciation in central-eastern Brazil: synthesis and model. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **65**, 1–21.
- Marshall HG, Walker JCG & Kuhn WR (1988) Long-term climate change and the geochemical cycle of carbon. *J. Geophys. Res.* **93**(D1), 791–801.
- Moncrieff ACM & Hambrey MJ (1988) Late Precambrian glacially-related grooved and striated surfaces in the Tillite Group of central East Greenland. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **65**, 183–200.
- Ojakangas RW (1988) Glaciation: an uncommon “mega-event” as a key to intracontinental and intercontinental correlation of Early Proterozoic basin fill, North American and Baltic cratons, in Kleinspehn KL & Paola C (eds) *New Perspectives in Basin Analysis*. Springer, New York, pp. 431–444.
- Rainbird RH & Donaldson JA (1988) Nonglacial deltaic deposits in the early Proterozoic Gowganda Formation, Cobalt Basin, Ontario. *Can. J. Earth Sci.* **25**, 710–724.
- Stump E, Miller JMG, Korsch RJ & Edgerton DG (1988) Diamictite from Nimrod Glacier area, Antarctica: possible Proterozoic glaciation on the seventh continent. *Geology* **16**, 725–728.
- Wu RT & Guan BD (1988) Glacigenic characteristics of the Luoquan Formation and sediment gravity flow reworking on it. *Acta Geol. Sinica* **1**, 325–339.
- Young GM (1988) Proterozoic plate tectonics, glaciation and iron-formations. *Sed. Geol.* **58**, 127–144.
- Young GM & Gostin VA (1988) Stratigraphy and sedimentology of Sturtian glacigenic deposits in the western part of the North Flinders Basin, South Australia. *Precam. Res.* **39**, 151–170.

1987: 9 2 2

- Brookfield ME (1987) Lithostratigraphic correlation of Blaini Formation (late Proterozoic, Lesser Himalaya, India) with other late Proterozoic tillite sequences. *Geol. Rundsch.* **76**, 477–484.
- Clauer N & Deynoux M (1987) New information on the probable isotopic age of the late Proterozoic glaciation in West Africa. *Precam. Res.* **37**, 89–94.
- Fairchild IJ & Spiro B (1987) Petrological and isotopic implications of some contrasting Late Precambrian carbonates, NE Spitsbergen. *Sedimentology* **34**, 973–989.
- Gérard J-C & François LM (1987) A model of solar-cycle effects on paleoclimate and its implications for the Elatina Formation. *Nature* **326**, 377–380.
- Hambrey MJ & Spencer AM (1987) Late Precambrian glaciation of central East Greenland. *Meddelelser om Grønland, Geosci.* **19**, 50 p.
- Hegenberger W (1987) Gas escape structures in Precambrian peritidal carbonate rocks. *Communs Geol. Surv. S. W. Afr./Namibia* **3**, 49–55.
- Miller JMG (1987) Paleotectonic and stratigraphic implications of the Kingston Peak–Noonday contact in the Panamint Range, eastern California. *J. Geol.* **95**, 75–85.
- Mustard PS & Donaldson JA (1987) Early Proterozoic ice-proximal glaciomarine deposition: the lower Gowganda Formation at Cobalt, Ontario, Canada. *Geol. Soc. Am. Bull.* **98**, 373–387.
- Preiss WV (1987) The Adelaide Geosyncline: Late Proterozoic stratigraphy, sedimentation, palaeontology and tectonics. *Geological Survey of South Australia, Bull.* **53**, 438 p.
- Yakobsen KE (1987) Vendian strata in their type area. *Geol. Mag.* **124**, 73–78.
- Zahnle K & Walker JCG (1987) A constant daylength during the Precambrian Era? *Precam. Res.* **37**, 95–105.

1986: 8 1

- Henry G, Stanistreet IG & Maiden KJ (1986) Preliminary results of a sedimentological study of the Chuos Formation in the Central Zone of the Damara Orogen: evidence for mass flow processes and glacial activity. *Communs Geol. Surv. S. W. Afr./Namibia* **2**, 75–92.
- Knoll AH, Hayes JM, Kaufman AJ, Swett K & Lambert IB (1986) Secular variation in carbon isotope ratios from Upper Proterozoic successions of Svalbard and East Greenland. *Nature* **321**, 831–838.
- Embleton BJJ & Williams GE (1986) Low latitude of deposition for late Precambrian periglacial varvites in South Australia: implications for palaeoclimatology. *Earth Planet. Sci. Lett.* **79**, 419–430.
- Guan BD, Wu RT, Hambrey MJ & Geng WC (1986) Glacial sediments and erosional pavements near the Cambrian–Precambrian boundary in western Henan Province, China. *J. Geol. Soc., Lond.* **143**, 311–323.
- Makhnach AS, Veretennikov NV & Shkuratov VI (1986) Vendian rocks of the western part of the East European Platform: stratotype range, boundaries and principles of their establishment. *Geol. Mag.* **123**, 349–356.
- Tucker ME (1986) Formerly aragonitic limestones associated with tillites in the late Proterozoic of Death Valley, California. *J. Sed. Petrol.* **56**, 818–830.
- Wehr F (1986) A proglacial origin for the upper Proterozoic Rockfish Conglomerate, central Virginia, U.S.A. *Precam. Res.* **34**, 157–174.
- Williams GE (1986) Precambrian permafrost horizons as indicators of palaeoclimate. *Precam. Res.* **32**, 233–242.
- Yeo GM (1986) Iron-formation in the late Proterozoic Rapitan Group, Yukon and Northwest Territories, in Morin JA (ed.) *Mineral Deposits of the Northern Cordillera*. Sp. Vol. 37, Canadian Institute of Mining and Metallurgy (CIMM), Montréal, Québec, pp. 142–153.

1985: 18 3

- Bjørlykke K (1985) Glaciations, preservation of their sedimentary record and sea level changes—a discussion based on the Late Precambrian and Lower Palaeozoic sequence in Norway. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 197–207.
- Deynoux M (1985) Terrestrial or waterlain glacial diamictites? Three case studies from the late Proterozoic and late Ordovician glacial drifts in West Africa. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 97–141.
- Dowdeswell, JA, Hambrey MJ & Wu R (1985) A comparison of clast fabric and shape in Late Precambrian and modern glaciogenic sediments. *J. Sed. Petrol.* **55**, 691–704.
- Eisbacher GH (1985) Late Proterozoic rifting, glacial sedimentation, and sedimentary cycles in the light of Windermere deposition, western Canada. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 231–254.
- Eyles CH, Eyles N (1985) Reply to Comment on 'Glaciomarine model for upper Precambrian diamictites of the Port Askaig Formation. *Geology* **13**, 89–90.
- Fairchild IJ (1985) Comment on 'Glaciomarine model for upper Precambrian diamictites of the Port Askaig Formation. *Geology* **13**, 89.
- Gao Z & Jianxin Q (1985) Sinian glacial deposits in Xinjiang, Northwest China. *Precam. Res.* **29**, 143–147.
- Hambrey MJ & Harland WB (1985) The Late Proterozoic glacial era. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 255–272.
- Lu SN, Ma GG, Gao ZJ & Lin WX (1985) Primary research on the glaciogenic rocks of the Late Precambrian in China, in Precambrian Geology Committee (Eds.) *Precambrian Geology, No. 1, The Collected Works on the Late Precambrian Glaciogenic Rocks of China*. Geology Publication House, Beijing, pp. 1–86.
- Martin H, Porada H & Walliser OH (1985) Mixtite deposits of the Damara sequence, Namibia, problems of interpretation. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 159–196.
- Miall AD (1985) Sedimentation of an early Proterozoic continental margin: the Gowganda Formation (Huronian), Elliot Lake area, Ontario, Canada. *Sedimentology* **32**, 763–788.
- Miller JMG (1985) Glacial and syntectonic sedimentation: the upper Proterozoic Kingston Peak Formation, southern Panamint Range, eastern California. *Geol. Soc. Am. Bull.* **96**, 1537–1553.
- Montes ASL, Gravenor CP & Montes ML (1985) Glacial sedimentation in the late precambrian Bebedouro Formation, Bahia, Brazil. *Sed. Geol.* **44**, 349–358.
- Nystuen JP (1985) Facies and preservation of glaciogenic sequences from the Varanger ice age in Scandinavia and other parts of the North Atlantic region. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 209–229.
- Ojakangas RW (1985) Evidence for early Proterozoic glaciation: the dropstone unit – diamictite association. *Geological Survey of Finland, Bull.* **331**, 55–72.
- Spencer AM (1985) Mechanisms and environments of deposition of Late Precambrian geosynclinal tillites: Scotland and East Greenland. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **51**, 143–157.
- Williams GE (1985) Solar affinity of sedimentary cycles in the late Precambrian Elatina Formation. *Austral. J. Phys.* **38**, 1027–1043.
- Williams GE & Sonett CP (1985) Solar signature in sedimentary cycles from the late Precambrian Elatina Formation, Australia. *Nature* **318**, 523–527.
- Williams GE & Tonkin DG (1985) Periglacial structures and paleoclimatic significance of a late Precambrian block field in the Cattle Grid copper mine, Mount Gunson, South Australia. *Austral. J. Earth Sci.* **32**, 287–300.
- Young GM & Nesbitt HW (1985) The Gowganda Formation in the southern part of the Huronian outcrop belt, Ontario, Canada: stratigraphy, depositional environments and regional tectonics significance. *Precam. Res.* **29**, 265–301.

- Edwards MB (1984) Sedimentology of the Upper Proterozoic glacial record, Vestertana Group, Finnmark, North Norway. *Norges Geologiske Undersøkelse Bull.* **394**, 76 p.
- Fairchild IJ & Hambrey MJ (1984) The Vendian succession of northeastern Spitsbergen: petrogenesis of a dolomite-tillite association. *Precam. Res.* **26**, 111–167.
- Sheldon RP (1984) Ice-ring origin of the Earth's atmosphere and hydrosphere and Late Proterozoic–Cambrian hypothesis. *Geological Survey India, Sp. Publ.* **17**, 17–21.
- Sokolov BS & Fedonkin MA (1984) The Precambrian—Cambrian boundary on the East European Platform. *Episodes* **7**, 00–19.
- Spalletti L & Del Valle A (1984) Las diamictitas del sector oriental de Tandilia: caracteres sedimentológicos y origen. *Revista de la Asociación Geológica Argentina* **39**, 188–206.

1983: 10 1

- Anderson JB (1983) Ancient glacial-marine deposits: their spatial and temporal distribution, in Molnia BF (ed.) *Glacial-Marine Sedimentation*. Plenum Press, New York, pp. 3–92.
- Christie-Blick N (1983) Glacial-marine and subglacial sedimentation, Upper Proterozoic Mineral Fork Formation, Utah, in Molnia BF (ed.) *Glacial-Marine Sedimentation*. Plenum Press, New York, pp. 703–776.
- Crittenden MD Jr, Christie-Blick N & Link PK (1983) Evidence for two pulses of glaciation during the late Proterozoic in northern Utah and southeastern Idaho. *Geol. Soc. Am. Bull.* **94**, 437–450.
- Deynoux M (1983) Late Precambrian and Upper Ordovician glaciations in the Taoudeni Basin, West Africa. An introduction to the field excursion of “Till Mauretania 83” symposium, in Deynoux M (ed.) *Symposium Till Mauretania 83, West African palaeoglaciations, characterization and evolution of glacial phenomena through space and time*. Abstracts of Communications and introduction to the field excursion, Université de Poitiers, France, pp. 43–86 (French/English).
- Eyles CH & Eyles N (1983) Glaciomarine model for upper Precambrian diamictites of the Port Askaig Formation, Scotland. *Geology* **11**, 692–696.
- Fairchild IJ (1983) Effects of glacial transport and neomorphism on Precambrian dolomite crystal sizes. *Nature* **304**, 714–716,
- Hambrey MJ (1983) Correlation of late Proterozoic tillites in the North Atlantic region and Europe. *Geol. Mag.* **120**, 290–320.
- Harland WB (1983) The Proterozoic glacial record, in Medaris, L.G. et al. (eds) *Proterozoic Geology*. *Geol. Soc. Am. Mem.* **161**, pp. 279–288.
- Link PK (1983) Glacial and tectonically influenced sedimentation in the Upper Proterozoic Pocatello Formation, southeastern Idaho, in Miller DM, Todd VR & Howard KA (eds) *Tectonic and Stratigraphic Studies in the Eastern Great Basin*. *Geol. Soc. Am. Mem.* **157**, Boulder, CO, pp. 165–181.
- Miall AD (1983) Glaciomarine sedimentation in the Gowganda Formation (Huronian), northern Ontario. *J. Sed. Petrol.* **53**, 477–491.
- Walter MR & Bauld J (1983) The association of sulphate evaporites, stromatolitic carbonates and glacial sediments: examples from the Proterozoic of Australia and the Cainozoic of Antarctic. *Precam. Res.* **21**, 129–148.

1982: 9 0 1

- Aitken JD (1982). Precambrian of the Mackenzie fold belt – a stratigraphic and tectonic overview, in Hutchinson RW, Spence CD & Franklin JM (eds.) *Precambrian Sulphide Deposits, H.S. Robinson Memorial Volume*. Sp. Pap. 25, Geological Association of Canada, St. John's, Newfoundland, pp. 149–161.
- Christie-Blick N (1982) Pre-Pleistocene glaciation on Earth: Implications for climatic history of Mars. *Icarus* **50**, 423–443.

- Deynoux M (1982) Periglacial polygonal structures and sand wedges in the late Precambrian glacial formations of the Taoudeni Basin in Adrar of Mauretania (West Africa). *Palaeogeog. Palaeoclimatol. Palaeoecol.* **39**, 55–70.
- Endal AS & Schatten KH (1982) The faint young sun-climate paradox: continental influences. *J. Geophys. Res.* **87**, 7295–7302.
- Goguel J (1982) Eos cover watchers. *EOS AGU Trans.* **63**(17), 250.
- Gorin GE, Racz LG & Walter MR (1982). Late Precambrian-Cambrian sediments of Huqf Group, Sultanate of Oman. *Am. Assoc. Petrol. Geol. Bull.* **66**, 2609–2627.
- Hambrey MJ (1982) Late Precambrian diamictites of northeastern Svalbard. *Geol. Mag.* **119**, 527–551.
- Schatten KH & Endal AS (1982) The faint young sun—climate paradox: volcanic influences. *Geophys. Res. Lett.* **9**, 1309–1311.
- Williams G (1982). Tidal rhythm disputed. *EOS AGU Trans.* **63**(39), 794.
- Young GM (1982) The late Proterozoic Tindir Group, east-central Alaska: evolution of a continental margin. *Geol. Soc. Am. Bull.* **93**, 759–783.

1981: 68 6 3

- Aalto KR (1981) The Late Precambrian Toby Formation of British Columbia, Idaho and Washington, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 731–735.
- Allison CW, Young GM, Yeo GM & Delaney GD (1981) Glacigenic rocks of the Upper Tindir Group, east-central Alaska, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 720–723.
- Anderson MM & King AF (1981) Precambrian tillites of the Conception Group on the Avalon Peninsula, southeastern Newfoundland, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 760–767.
- Blick N (1981) Late Precambrian glaciation in Utah, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 740–744.
- Bjørlykke K (1981) Late Precambrian tillites of the Bunyoro Series, western Uganda, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 151–152.
- Bjørlykke K & Nystuen JP (1981) Late Precambrian tillites of South Norway, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 624–628.
- Boulton GS & Deynoux M (1981) Sedimentation in glacial environments and the identification of tills and tillites in ancient sedimentary sequences. *Precambrian Research* **15**, 397–422.
- Caby R & Fabré J (1981) Late Precambrian to Early Paleozoic diamictites, tillites and associated glacigenic sediments in the Série Pourprée of western Hoggar, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 140–145.
- Caby R & Fabré J (1981) Tillites in the latest Precambrian strata of the Touareg Shield (central Sahara), in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 146–149.
- Cahen L & Lepersonne J (1981) Proterozoic diamictites of Lower Zaire, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 153–157.
- Clemmensen LB (1981) Late Precambrian tilloids of Peary Land, North Greenland, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 782–786.

- Chumakov NM (1981) Upper Proterozoic glaciogenic rocks and their stratigraphic significance. *Precam. Res.* **15**, 373–395.
- Chumakov NM (1981) Late Precambrian glacial deposits of the Vilchitsy Formation of western regions of the U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 655–659.
- Chumakov NM (1981) Late Precambrian glacial deposits of the Blon Formation, Belorussia, U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 660–662.
- Chumakov NM (1981) Late Precambrian tillites of the Ryazan' Province and adjacent regions of the U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 664.
- Chumakov NM (1981) Late Precambrian tillites of the Yablonovka Formation of the Karelian Neck, U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 666–669.
- Chumakov NM (1981) Late Precambrian Churochnaya tillites of the Polyudov ridge, U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 665.
- Chumakov NM (1981) Late Precambrian Kurgashlya tilloids, southern Urals, U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 674–677.
- Coates RP (1981) Late Proterozoic (Adelaidean) tillites of the Adelaide Geosyncline, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 537–548.
- Cobbing EJ (1981) Tillites at the base of the possible Early Palaeozoic Marcona Formation, southwest coastal Chile, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 899–901.
- Deynoux M & Trompette R (1981) Late Precambrian tillites of the Taoudeni Basin, West Africa, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 123–131.
- Doré F (1981) Late Precambrian tilloids of Normandy (Armorican Massif), in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 643–646.
- Edwards MB & Føyn S (1981) Late Precambrian tillites in Finnmark, North Norway, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 606–610.
- Eisbacher GH (1981) Sedimentary tectonics and glacial record in the Windermere Supergroup, Mackenzie Mountains, northwestern Canada. *Geological Survey of Canada Pap.* **80–27**, 40 p.
- Eisbacher GH (1981) Late Precambrian tillites of the northern Yukon-Northwest Territories region, Canada, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 724–727.
- Eisbacher GH (1981) The Late Precambrian Mount Lloyd George diamictites, northern British Columbia, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 728–730.
- Fiala F (1981) Latest Precambrian tilloids of Eastern Bohemia, Czechoslovakia, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 647–649.
- Gair JE (1981) Lower Proterozoic glacial deposits of northern Michigan, U.S.A, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 803–806.

- Hambrey MJ & Harland WB (1981) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, London, 1004 p.
- Hambrey MJ, Harland WB & Waddams P (1981) Late Precambrian tillites of Svalbard, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 592–600.
- Hambrey MJ & Waddams P (1981) Glacigenic boulder-bearing deposits in the Upper Dalradian Macduff Slates, northeastern Scotland, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 571–575.
- Held IM, Linder DI & Suarez MJ (1981) Albedo feedback, the meridional structure of the effective heat diffusivity, and climatic sensitivity: Results from dynamic and diffusive models. *J. Atm. Sci.* **38**, 1911–1927.
- Higgins AK (1981) The Late Precambrian Tillite Group of the King Oscars Fjord and Kejser Franz Josefs Fjord region of East Greenland, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 778–781.
- Houston RS, Lanthier LR, Karlstrom KK & Sylvester G (1981). Early Proterozoic diamictite of southern Wyoming, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 795–799.
- Jago JB (1981) Possible Late Precambrian (Adelaidean) tillites of Tasmania, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 549–554.
- Knoll AH, Blick N & Awramik SM (1981) Stratigraphic and ecologic implications of Late Precambrian microfossils from Utah. *Am. J. Sci.* **281**, 247–263.
- Kröner A (1981) Late Precambrian diamictites of South Africa and Namibia, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 167–177.
- Kumpulainen R (1981) The Late Precambrian Lillfjället Formation in the southern Swedish Caledonides, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 620–623.
- Liao SF (1981) Sinian glacial deposits of Guizhou Province, China, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 414–423.
- Link PK (1981) Upper Proterozoic diamictites in south-eastern Idaho, U.S.A, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 736–739.
- Link PK & Gostin VA (1981) Facies and palaeogeography of Sturtian glacial strata (late Precambrian), South Australia. *Am. J. Sci.* **281**, 353–374.
- Long DGF (1981). Glacigenic rocks in the Early Proterozoic Chibougamau Formation of northern Quebec, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 817–820.
- Max MD (1981) Dalradian tillite of northwestern Ireland, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 640–642.
- Miller JMG, Wright LA & Troxel BW (1981) The Late Precambrian Kingston Peak Formation, Death Valley region, California, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 743–748.
- Mu YJ (1981) Luoquan Tillite of the Sinian System in China, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 402–413.
- Negrutsa TF & Negrutsa VZ (1981) Early Proterozoic Lammos tilloids of the Kola Peninsula, U.S.S.R, in Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 678–680.

- Negrutsa TF & Negrutsa VZ (1981) Early Proterozoic Sarioli tilloids in the eastern part of the Baltic Shield, U.S.S.R, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 683–686.
- North GR, Cahalan RF & Coakley JA Jr (1981) Energy balance climate models. *Rev. Geophys. Space Phys.* **19**, 91–121.
- Plumb KA (1981) Late Proterozoic (Adelaidean) tillites of the Kimberley–Victoria River region, Western Australia and Northern Territory, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 504–514.
- Plumb KA (1981) Late Proterozoic (Adelaidean) tillite of the Duchess area, northwestern Queensland, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 528–530.
- Preiss WV & Forbes BG (1981) Stratigraphy, correlation and sedimentary history of Adelaidean (Late Proterozoic) basins in Australia. *Precam. Res.* **15**, 255–304.
- Rehmer J (1981) The Squantum tilloid Member of the Roxbury Conglomerate of Boston, Massachusetts, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 756–759.
- Rocha-Campos AC & Hasui Y (1981) Late Precambrian Jangada Group and Puga Formation of central western Brazil, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 916–919.
- Rocha-Campos AC & Hasui Y (1981) Proterozoic diamictites of western Minas Gerais and eastern Goiás, central Brazil, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 920–923.
- Rocha-Campos AC & Hasui Y (1981) Tillites of the Macaúbas Group (Proterozoic) in central Minas Gerais and southern Bahia, Brazil, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 933–938.
- Schermerhorn LJG (1981) Late Precambrian tilloids of northwestern Angola, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 158–161.
- Schwab FL (1981) Late Precambrian tillites of the Appalachians, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 751–755.
- Spencer AM (1981) The Late Precambrian Port Askaig Tillite in Scotland, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 632–636.
- Strömberg AGB (1981) The Late Precambrian Sito tillite and the Vakkejokk breccia in the northern Swedish Caledonides, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 611–614.
- Thelander T (1981) The Late Precambrian Långmarkberg Formation in the central Swedish Caledonides, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 615–619.
- Treagus JE (1981) The Lower Dalradian Kinlochlaggan Boulder Bed, central Scotland, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 637–639.
- Trendall AF (1981) The Lower Proterozoic Meteorite Bore Member, Hamersley Basin, Western Australia, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 555–557.
- Trompette R (1981). Late Precambrian tillites of the Volta Basin and the Dahomeyides Orogenic Belt (Benin, Ghana, Togo and Upper-Volta) , *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 135–139.

- Tucker ME. & Reid PC (1981) Late Precambrian glacial sediments, Sierra Leone, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 132–134.
- Tuckwell KD (1981) Adelaidean diamictites of the Broken Hill District of New South Wales, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 531–536.
- Vidal G & Bylund G (1981) Late Precambrian boulder beds in the Visingsø Beds, south Sweden, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 629–631.
- Visser JNJ (1981) The mid-Precambrian tillite in the Griqualand West and Transvaal Basins, South Africa, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 180–184.
- Walde DHG, Gierth E & Leonardos OH (1981) Stratigraphy and mineralogy of the manganese ores of Urucum, Mato Grosso, Brazil. *Geol. Rundsch.* **70**, 1077–1085.
- Walker JCG, Hays PB & Kasting JF (1981) A negative feedback mechanism for the long-term stabilization of Earth's surface temperature. *J. Geophys. Res.* **86**(C10), 9776–9782.
- Walter M (1981) Late Proterozoic tillites of the southwestern Georgina Basin, Australia, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 525–527.
- Wang YL, Lu SN, Gao ZJ, Lin WX & Ma GG (1981) Sinian tillites of China, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 386–401.
- Wells AT (1981) Late Proterozoic diamictites of the Amadeus and Ngalia Basins, central Australia, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 515–524.
- Williams GE (1981) Sunspot periods in the late Precambrian glacial climate and solar-planetary relations. *Nature* **291**, 624–628.
- Yeo GM (1981) The Late Proterozoic Rapitan glaciation in the northern Cordillera, *in* Campbell FHA (ed.) *Proterozoic Basins of Canada*. Geological Survey of Canada Pap. **81-10**, pp. 25–46.
- Young GM (1981) The Early Proterozoic Gowganda Formation, Ontario, Canada, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 807–812.
- Young GM & McLennan SM (1981) Early Proterozoic Padlei Formation, Northwest Territories, Canada, *in* Hambrey MJ & Harland WB (eds) *Earth's Pre-Pleistocene Glacial Record*. Cambridge University Press, Cambridge, pp. 790–794.
- 1980: 6 1**
- Coats RP & Preiss WV (1980) Stratigraphic and geochronological reinterpretation of Late Proterozoic glaciogenic sequences in the Kimberley Region, Western Australia. *Precam. Res.* **13**, 181–208.
- Deynoux M (1980) Les formations glaciaires du Précambrien terminal et de la fin de l'Ordovicien en Afrique de l'Ouest: deux exemples de glaciation d'Inlandsis sur une plate-forme stable. *Travaux des Laboratoires des Sciences de la Terre, St. Jérôme, Marseille*, 554 p.
- Føyn S & Siedlecki S (1980) Glacial stadials and interstadials of the Late Precambrian Smalfjord Tillite on Laksfjordvidda, Finnmark, north Norway. *Norges Geologiske Undersøkelse* **358**, 31–52.
- Hegenberger W & Seeger KG (1980) The geology of the Gobabis area. Explanation of Sheet 2218, scale 1:250,000. Geological Survey of South West Africa/Namibia, Windhoek, 11 p.
- Ojakangas RW & Matsch CL (1980) Upper Precambrian (Eocambrian) Mineral Fork Tillite of Utah: a continental glacial and glaciomarine sequence. *Geol. Soc. Am. Bull.* **91**, 495–501.

Wang WC & Stone PH (1980) Effect of ice-albedo feedback on global sensitivity in a one-dimensional radiative-convective climate model. *J. Atm. Sci.* **37**, 545–552.

1979: 7 1 1

Caldas J (1979) Evidencias de una glaciación Precambriana en la Costa Sur del Peru. *Segundo Congreso Geológico Chileno: Arica, Chile*. Sociedad Geológico de Chile, pp. J29–J38.

Frakes LA (1979) *Climates Throughout Geologic Time*. Elsevier, Amsterdam, 310 p.

Hartmann DL & Short DA (1979) On the role of zonal asymmetries in climate change. *J. Atm. Sci.* **36**, 519–528.

Hedberg RM (1979) Stratigraphy of the Ovamboland Basin, South West Africa. *University of Cape Town, Precam. Res. Unit, Bull.* **24**, 325 p.

McLennan SM, Fryer BJ, Fryer BJ & Young GM (1979) The geochemistry of the carbonate-rich Espanola Formation (Huronian) with emphasis on the rare earth elements. *Can. J. Earth Sci.* **16**, 230–239.

Nystuen JP & Sæther T (1979) Clast studies in the Late Precambrian Moelv Tillite and Osdal Conglomerate, Sparagmite Region, south Norway. *Norsk Geologisk Tidsskrift* **59**, 239–251.

Williams GE (1979) Sedimentology, stable-isotope geochemistry and palaeoenvironment of dolostones capping late Precambrian glacial sequences in Australia. *J. Geol. Soc. Austral.* **26**, 377–386.

Young GM (1979) The earliest ice ages: Precambrian, in John BS (ed.) *The Winters of the World*. David & Charles, Newton Abbot, Devon, UK, pp. 107–130.

1978: 6 1

Chumakov NM (1978) *Precambrian tillites and tilloids* (translated title). 72–87. Nauka, Moscow.

Deynoux M (1978) Upper Precambrian and Lowermost Paleozoic correlations in West Africa and in the western part of Central Africa. Probable diachronism of the Late Precambrian tillite. *Geol. Rundsch.* **67**, 615–630.

Eisbacher GH (1978) Re-definition and subdivision of the Rapitan Group, Mackenzie Mountains. *Geological Survey of Canada Pap.* **77–35**, 21 p.

Oerlemans J & van den Dool HM (1978) Energy balance climate models: stability experiments with a refined albedo and updated coefficients for infrared emission. *J. Atm. Sci.* **35**, 371–381.

Plummer PS (1978) Note on the palaeoenvironmental significance of the Nuccaleena Formation (upper Precambrian), central Flinders Ranges, South Australia. *J. Geol. Soc. Austral.* **25**, 395–402.

Wright L, Williams EG & Cloud P (1978) Algal and cryptalgal structures and platform environments of the late pre-Phanerozoic Noonday Dolomite, eastern California. *Geol. Soc. Am. Bull.* **89**, 321–333.

1977: 9 2 1

Coates RP & Forbes BG (1977) Evidence for two Sturtian glaciations in South Australia—a reply. *Quart. Geol. Notes Geol. Surv. S. Austral.* **64**, 19–20.

De Villiers PR, Visser JNJ (1977) The glacial beds of the Griqualand West Supergroup as revealed by four deep boreholes between Postmasburg and Sishen. *Trans. Geol. Soc. S. Afr.* **80**, 1–8.

Lindzen RS & Farrell B (1977). Some realistic modifications of simple climate models. *J. Atm. Sci.* **34**, 1487–1500.

Kröner A (1977) Non-synchronicity of Late Precambrian glaciations in Africa. *J. Geol.* **85**, 289–303.

McWilliams MO (1977) *Late Precambrian Paleomagnetism of Australia and Africa*. Ph.D. Thesis, Australian National University, Canberra, A.C.T., 162 p.

Morris WA (1977a) Paleolatitude of glacial upper Precambrian Rapitan Group and the use of tillites as chronostratigraphic marker horizons. *Geology* **5**, 85–88.

- Morris WA (1977b) Paleomagnetism of the Gowganda and Chibougamau Formations: evidence of 2,200 m.y. old folding and remagnetization event of the southern province. *Geology* **5**, 137–140.
- Murell B, Link PK & Gostin VA (1977) Evidence for only one Sturtian glacial period in the 'Copley' map area. *Quart. Geol. Notes Geol. Surv. S. Austral.* **64**, 16–19.
- Roberts JD (1977). Late Precambrian dolomites, Vendian glaciation, and synchronicity of Vendian glaciations: a reply. *J. Geol.* **85**, 251–252.
- Schermerhorn LJG (1977) Late Precambrian dolomites, Vendian glaciation, and synchronicity of Vendian glaciations: a discussion. *J. Geol.* **85**, 247–250.
- Williams GE (1977) Late Precambrian dolomites, Vendian glaciation, and synchronicity of Vendian glaciations: a discussion. *J. Geol.* **85**, 250–252.

1976: 14 1 1 1

- Bjørlykke K, Elvsborg A & Høy T (1976) Late Precambrian sedimentation in the central Sparagmite basin of south Norway. *Norsk Geologisk Tidsskrift* **56**, 233–290.
- Cahen L & Lepersonne J (1976) Les mixtites du Bas-Zaïre: mise au point intérimaire. *Musée Royale Afrique Centrale, Tervuren, Belgium, Rapport Annu. 1975*, 33–57.
- Deynoux M & Trompette R (1976) Discussion: Late Precambrian mixtites: glacial and/or nonglacial? Dealing especially with the mixtites of West Africa. *Am. J. Sci.* **276**, 1302–1315.
- Edwards MB (1976) Sedimentology of Late Precambrian Svaenor and Kapp Sparre Formations at Aldousbreen, Wahlenbergfjorden, Nordaustlandet. *Norsk Polarinstitut Årbok* **1974**, 51–61, Oslo.
- Forbes BG & Cooper RS (1976) The Pualco Tillite of the Olary Region, South Australia. *Quart. Geol. Notes Geol. Surv. S. Austral.* **60**, 2–5.
- Ghil M (1976) Climate stability for a Sellers-type model. *J. Atm. Sci.* **33**, 3–20.
- Nystuen J (1976) Late Precambrian Moelv tillite deposited on a discontinuity surface associated with a fossil ice wedge, Rendalen, southern Norway. *Norsk Geologiske Tidsskrift* **56**, 29–50.
- Nystuen J (1976) *Facies and Sedimentation of the Late Precambrian Moelv Tillite in the Eastern Part of the Sparagmite Region, South Norway. Norges Geologiske Undersøkelse* **329**, 70 p.
- Roberts JD (1976) Late Precambrian dolomites, Vendian glaciation, and synchronicity of Vendian glaciations. *J. Geol.* **84**, 47–63.
- Schermerhorn LJG (1976) Reply: Late Precambrian mixtites: glacial and/or nonglacial? Dealing especially with the mixtites of West Africa. *Am. J. Sci.* **276**, 1315–1324.
- Sumartojo J & Gostin VA (1976) Geochemistry of the late Precambrian Sturt Tillite, Flinders Ranges, South Australia. *Precam. Res.* **3**, 243–252.
- Trendall AF (1976) Striated and faceted boulders from the Turee Creek Formation—evidence for a possible Huronian glaciation on the Australian continent. *Geological Survey of Western Australia, Annu. Rep.* pp. 88–92.
- Vidal G (1976) Late Precambrian acritarchs from the Eleonore Bay Group and Tillite Group in East Greenland. *Grønlands Geologiske Undersøgelse Rapport* **78**, 19 p.
- Young GM (1976) Iron-formation and glaciogenic rocks of the Rapitan Group, Northwest Territories, Canada. *Precam. Res.* **3**, 137–158.

1975: 6 0 2

- Edwards MB (1975) Glacial retreat sedimentation in the Smalfjord Formation, Late Precambrian, north Norway. *Sedimentology* **22**, 75–94.
- Chýlek P, Coakley Jr JA (1975) Analytical analysis of a Budyko-type climate model. *J. Atm. Sci.* **32**, 675–679.
- Harland WB & Herod KN (1975) Glaciations through time, in Wright AE & Mosely F (eds) *Ice Ages: Ancient and Modern*. Steel House Press, Liverpool, pp. 189–216.
- Röshoff K (1975) A probable glaciogenic sediment in the Särvi Nappe, central Swedish Caledonides. *Geologiska Föreningens I Stockholm Förhandlingar* **97**, 192–195.

- Schermerhorn LJG (1975). Tectonic framework of Late Precambrian supposed glacials, in Wright AE & Moseley F (eds) *Ice Ages: Ancient and Modern*. Seel House Press, Liverpool, pp. 241–274.
- Spencer AM (1975) Late Precambrian glaciation in the North Atlantic region, in Wright AE & Moseley F (eds) *Ice Ages: Ancient and Modern*. Seel House Press, Liverpool, pp. 217–240.
- Wetherald RT & Manabe S (1975) The effects of changing the Solar constant on the climate of a general circulation model. *J. Atm. Sci.* **32**, 2044–2059.
- Williams GE (1975) Late Precambrian glacial climate and the Earth's obliquity. *Geol. Mag.* **112**, 441–544.

1974: 10 1 1

- Bjørlykke K (1974) Glacial striations on clast from the Moelv Tillite of the late Precambrian of southern Norway. *Am. J. Sci.* **274**, 443–448.
- Cloud P, Wright LA, Williams EG, Diehl P & Walter MR (1974) Giant stromatolites and associated vertical tubes from the upper Proterozoic Noonday Dolomite, Death Valley region, eastern California. *Geol. Soc. Am. Bull.* **85**, 1869–1882.
- Edwards MB (1974) Sedimentology of Late Precambrian Sveanor and Kapp Sparre Formations at Aldousbreen, Wahlsbergfjorden, Nordaustlandet. *Norsk Polarinstitutt Årbok 1974*, Oslo, pp. 51–61.
- Held IM & Suarez MJ (1974) Simple albedo feedback models of the icecaps. *Tellus* **26**(6), 613–629.
- Jago JB (1974) The origin of the Cottons Breccia, King Island, Tasmania. *Trans. R. Soc. S. Austral.* **98**(1), 13–28.
- McElhinny MW, Giddings JW & Embleton BJJ (1974) Palaeomagnetic results and late Precambrian glaciations. *Nature* **248**, 557–561.
- Schermerhorn LJG (1974) Late Precambrian mixtites: glacial and/or non-glacial? *Am. J. Sci.* **274**, 673–824.
- Tarling DH (1974) A palaeomagnetic study of Eocambrian tillites in Scotland. *J. Geol. Soc., Lond.* **130**, 163–177.
- Williams EG, Wright LA & Troxel BW (1974) The Noonday Dolomite and equivalent stratigraphic units, southern Death Valley region, California, in Wright LA & Troxel BW (eds) *Guidebook: Death Valley region, California and Nevada*. Death Valley Publishing, Shoshone, CA, pp. 73–77.
- Williams GE (1974) Discussion of Late Precambrian glacial climate and the Earth's obliquity. *J. Geol. Soc., Lond.* **130**, 599–601.

1973: 17 1 2

- Bjørlykke K (1973) Glacial conglomerates of Late Precambrian age from the Bunyoro Series, W. Uganda. *Geol. Rundsch.* **62**, 938–947.
- Daily B, Gostin VA & Nelson CA (1973) Tectonic origin for an assumed glacial pavement of late Proterozoic age, South Australia. *Journal of the Geol. Soc. Austral.* **20**, 75–78.
- Gabrielse H, Blusson SL, Roddick JA (1973) Geology of Flat River, Glacier Lake and Wrigley Lake map-areas, District of Mackenzie and Yukon Territory. *Geol. Surv. Can. Mem.* **366**, 421 p.
- Johnston JD (1973) Ice wedge casts in the Dalradian of South Donegal: evidence for subaerial exposure of the Boulder Bed. *Irish J. Earth Sci.* **12**, 13–26.
- Keller BM (1973) Great glaciations in history of the Earth. *Intl Geol. Rev.* **15**, 1067–1074.
- Kröner A (1973) Mixtite field excursion in South Africa, South West Africa and Angola, June 1973. *Geol. Newsletter* **1973**, 286–290.
- Kröner A & Correia H (1973) Further evidence for glaciogenic origin of Late Precambrian mixtites in Angola. *Nature* **246**, 115–117.
- Kröner A & Rankama K (1973) Late Precambrian glaciogenic sedimentary rocks in southern Africa: A compilation with definitions and corrections. *Geol. Surv. Finland Bull.* **45**, 79–102.

- Miller FK, McKee EH & Yates RG (1973) Age and correlation of the Windermere Group in northeastern Washington. *Geol. Soc. Am. Bull.* **84**, 3723–3730.
- Page NJ & Koski RA (1973) A Precambrian diamictite below the Stillwater Complex, southwestern Montana. *J. Res. U.S. Geol. Surv.* **1**, 403–414.
- Piper JDA (1973) Latitudinal extent of late Precambrian glaciations. *Nature* **244**, 342.
- Pringle IR (1973) Rb-Sr age determinations on shales associated with the Varanger Ice Age. *Geol. Mag.* **109**, 465–472.
- Rankama K (1973) The Late Precambrian glaciation, with particular reference to the Southern Hemisphere. *J. Proc. R. Soc. New South Wales* **106**, 89–97.
- Schneider SH & Gal-Chen T (1973) Numerical experiments in climate stability. *J. Geophys. Res.* **78**, 6182–6194.
- Steiner J & Grillmair E (1973) Possible galactic causes of periodic and episodic glaciations. *Geol. Soc. Am. Bull.* **84**, 1003–1018.
- Williams GE (1973) Geotectonic cycles, lunar evolution, and the dynamics of the Earth-Moon system. *Modern Geol.* **4**, 159–183.
- Young GM (1973a) Tillites and aluminous quartzites as possible time markers for Middle Precambrian (Aphebian) rocks of North America, in Young, G.M. (ed.) *Huronian Stratigraphy and Sedimentation*. Sp. Pap. 12, Geological Association of Canada, pp. 97–127.
- Young GM (1973b) Origin of carbonate-rich early Proterozoic Espanola Formation, Ontario, Canada. *Geol. Soc. Am. Bull.* **84**, 135–160.

1972: 12 1 1

- Anderson MM (1972) A possible time span for the late Precambrian of the Avalon Peninsula of southeastern Newfoundland in the light of worldwide correlation of fossils, tillites and rock units within the succession. *Can. J. Earth Sci.* **9**, 1710–1726.
- Binda PL & Van Eden JG (1972) Sedimentological evidence on the origin of the Precambrian Great Conglomerate (Kundelungu Tillite), Zambia. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **12**, 151–168.
- Blondeau KM & Lowe DR (1972) Upper Precambrian glacial deposits of the Mount Rogers Formation, central Appalachians, USA. *24th Intl Geol. Congr.* **1**, 325–332.
- Crittenden MD, Stewart JH & Wallace CA (1972) Regional correlation of upper Precambrian strata in western North America. *24th International Geological Congress* **1**, 334–341.
- Kröner A & Rankama K (1972) Late Precambrian glaciogenic sedimentary rocks in southern Africa: a compilation with definitions and correlations. *Precam. Res. Unit Bull.* **11**, University of Cape Town, South Africa, 37 p.
- Laird MG (1972) The stratigraphy and sedimentology of the Laksefjord Geoup, Finnmark. *Norges Geologiske Undersøkelse* **278**, 13–40.
- Roberts HG, Gemuts I & Halligan R (1972) *Adelaidean and Cambrian Stratigraphy of the Mount Ramsay 1:250,000 Sheet area, Kimberley Region, Western Australia*. Australian Bureau of Mineral Resources, Geol. Geophys. Rep. 150, 67 p.
- Siedlecka A & Roberts D (1972) A late Precambrian tilloid from Varangerhalvøya—evidence of both glaciation and subaqueous mass movement. *Norges geologiske Undersøkelse Årbok* **1972**, 135–141.
- Spencer AM & Spencer MO (1972) The Late Precambrian/Lower Cambrian Bonahaven Dolomite of Islay and its stromatolites. *Scottish J. Geol.* **8**, 269–282.
- Trompette R (1972) Présence dans le bassiu Voltaïen, de deux glaciations distinctes à la limite Précambrien supérieure—Cambrien. Incidences sur l'interprétation chronostratigraphique des séries de bordure du craton Ouest-Africain. *Compte Rendu, Acad. Sci. Paris, Sér. D* **275**, 1027–1030.

- Williams GE (1972) Geological evidence relating to the origin and secular rotation of the Solar system. *Modern Geol.* **3**, 165–181.
- Young GM (1972) UNESCO/IUGS Field Trip and Symposium on Precambrian glacially sedimentary rocks, November 3–9, 1971. *Geological Newsletter* **1972**, 14–16.
- Young GM (1972) Downward intrusive breccias in the Huronian Espanola Formation, Ontario, Canada. *Can. J. Earth Sci.* **9**, 756–762.

1971: 12 2 1

- Aalto KR (1971) Glacial marine sedimentation and stratigraphy of the Toby Conglomerate (upper Proterozoic), southeastern British Columbia, northwestern Idaho and northeastern Washington. *Can. J. Earth Sci.* **8**, 753–787.
- Banks NL, Edwards MB, Geddes WP, Hobday DA & Reading HC (1971) Late Precambrian and Cambro-Ordovician sedimentation in East Finnmark. *Norges Geologiske Undersøkelse* **269**, 197–236.
- Brückner WD & Anderson NM (1971) Late Precambrian glacial deposits in southeastern Newfoundland—a preliminary note. *Proc. Geol. Assoc. Can.* **24**, 95–102.
- Chumakov N & Cailleux A (1971) Glaciation et éolisation dans l'est et le nord de l'Europe à l'éocambrien. *Revue Géomorphologie Dynamique* **20**, 1–4.
- Crawford AR & Daily B (1971) Probable non-synchronicity of Late Precambrian glaciations. *Nature* **230**, 111–112.
- Crittenden MJ, Schaeffer F, Trimble D & Woodward L (1971) Nomenclature and correlation of some Upper Precambrian and basal Cambrian sequences in western Utah and southeastern Idaho. *Geol. Soc. Am. Bull.* **82**, 581–602.
- Dunn PR, Thomson BP & Rankama K (1971) Late Pre-Cambrian glaciation in Australia as a stratigraphic boundary. *Nature* **231**, 498–502.
- Forbes BG (1971) A table of Adelaidean and Cambrian stratigraphic names. *Quart. Geol. Notes Geol. Surv. S. Austral.* **38**, 1, 5–6.
- Howarth RJ (1971) The Portaskaig Tillite succession (Dalradian) of Co. Donegal. *Proc. R. Irish Acad.* **71B**, 1–36.
- Lindsey DA (1971) Glacial marine sediments in the Precambrian Gowganda Formation at Whitefish Falls, Ontario (Canada). *Palaeogeog. Palaeoclimatol. Palaeoecol.* **9**, 7–25.
- Powell D & Saxena MN (1971) Tillite horizons in the Chamba Himalayas of Himachal Pradesh, North India. *Quart. J. Geol. Soc., Lond.* **127**, 595–598.
- Roberts JD (1971) Late Precambrian glaciation: an anti-greenhouse effect? *Nature* **234**, 216.
- Spencer AM (1971) *Late Pre-Cambrian Glaciation in Scotland*. Geol. Soc., Lond. Mem. 6, 99 p.
- Visser JNJ (1971) The deposition of the Griquatown Glacial Member in the Transvaal Supergroup. *Trans. Geol. Soc. S. Afr.* **74**, 186–199.

1970: 4 2

- Bowes DR (1970) Petrochemistry of Upper Proterozoic glacially sedimentary rocks of the Torrowangee Series at Poolamacca, Broken Hill, New South Wales. *Proc. Geologists' Assoc.* **81**, 473–482.
- Eisbacher GH (1970) Contemporaneous faulting and clastic intrusions in the Quirke Lake Group, Elliot Lake, Ontario. *Can. J. Earth Sci.* **7**, 215–225.
- Howarth RJ (1970) Principal component analysis of the geochemistry and mineralogy of the Portaskaig Tillite and Kiltyfanned Schist (Dalradian) of Co. Donegal, Eire. *Mathematical Geol.* **2**, 285–299.
- Wells AT, Forman DJ, Ranford LC & Cook PJ (1970) Geology of the Amadeus Basin, central Australia. *Bulletin of the Bureau of Mineral Resources, Geology and Geophysics of Australia* **100**, 222 p.
- Whitten GF (1970) The investigation and exploitation of the Razorback Ridge iron deposit. *Geological Survey of South Australia Reports of Investigations* **33**, 165 p.

Young GM (1970) An extensive Early Proterozoic glaciation in North America? *Palaeogeog. Palaeoclimatol. Palaeoecol.* **7**, 85–101.

1969: 8 3 2

Biju-Duval B & Gariel O (1969) *Nouvelles observations sur les phénomènes glaciaires "Éocambriens" de la bordure nord de la synéclyse de Taoudeni, entre le Hank et le Tanezrouft, Sahara occidental.* *Palaeogeog. Palaeoclimatol. Palaeoecol.* **6**, 283–315.

Budyko MI (1969) The effect of solar radiation variations on the climate of the Earth. *Tellus* **21**, 611–619.

Casshyap SM (1969) Petrology of the Bruce and Gowganda formations and its bearing on the evolution of Huronian sedimentation in the Espanola-Williamsville area, Ontario (Canada). *Palaeogeog. Palaeoclimatol. Palaeoecol.* **6**, 5–36.

Dow DB & Gemuts I (1969) Geology of the Kimberley region, Western Australia: the East Kimberley. *Bulletin of the Bureau of Mineral Resources, Geology and Geophysics of Australia* **106**, 135 p.

Lindsey DA (1969) Glacial sedimentology of the Precambrian Gowganda Formation, Ontario, Canada. *Geol. Soc. Am. Bull.* **80**, 1685–1702.

Isotta CA, Rocha-Campos AC & Yoshida R (1969) Striated pavement of the Upper Pre-Cambrian glaciation in Brazil. *Nature* **222**, 466–468.

Rankin DW, Stern TW, Reed JC & Newell MF (1969) Zircon ages of felsic volcanic rocks in the upper Precambrian of the Blue Ridge, Appalachian Mountains. *Science* **166**, 741–744.

Saito R (1969) Glacier problems of late Pre-Cambrian eon. *Kunamoto J. Sci. Ser. B Section 1* **8**, 7–44.

Sellers WD (1969) A global climatic model based on the energy balance of the Earth-atmosphere system. *J. Appl. Meteorol.* **8**, 392–400.

Spencer AM, Banham PM, Gill WD, Howarth RJ, Harland WB, Stubblefield J, Tanner PWG, Rast N, Litherland M, Knill JL, Stewart AD, Roberts JD, Reading HG, Bjørlykke K, Banks NL, Edwards MB, Boulton GS, Wilson RCL, Llewellyn PG, Potter HC, Treagus JE & Shackleton RM (1969) Late Pre-Cambrian glaciation in Scotland, with Discussions. *Proc. Geol. Soc., Lond.* 1969, no. 1957, 177–198.

Treagus JE (1969) The Kinlochlaggan Boulder Bed. *Proc. Geol. Soc., Lond.* **1654**, 55–60.

Young GM (1969) Geochemistry of Early Proterozoic tillites and argillites of the Gowganda Formation, Ontario. *Geochim. Cosmochim. Acta* **33**, 483–492.

1968: 6 1 2

Bessonova VY & Chumakov NM (1968) Glacial sediments of the upper Precambrian of Belorussia. *Akad. Nauk SSSR Doklady* **178**, 53–56.

Budyko MI 1968. On the origin of the glacial epochs. *Meteorol. Hydrol.* **11**, 3–12.

Chumakov, N.M., (1968) On the character of the Late Precambrian glaciation of Spitsbergen (translated title). *Doklady Akad. Nauk SSSR, Geol. Ser.* **180**, 1446–1449.

Eriksson E (1968) Air-ocean-icecap interactions in relation to climatic fluctuations and glaciation cycles. *Meteorol. Monogr.* **8**, 68–92.

Furduy RS (1968) Upper Precambrian tillite of the Kolyma region. *Akad. Nauk SSSR Doklady* **180**, 72–75.

Perry WJ & Roberts HG (1968) Late Precambrian glaciated pavements in the Kimberley Region, Western Australia. *J. Geol. Soc. Austral.* **15**(1), 51–56.

Roscoe SM (1968) Huronian rocks and unraniferous conglomerates in the Canadian Shield. *Geological Survey of Canada Paper* **68–40**, 205 p.

Spencer AM & Pitcher WS (1968) Occurrence of the Port Askaig Tillite in north-east Scotland. *Proc. Geol. Soc., Lond.* 1968, no. 1650, 195–198.

Thomson BP & Johnson JE (1968) Marinoan stratigraphy, Port Augusta region. *Quart. Geol. Notes Geol. Surv. S. Austral.* **25**, 4–7.

1967: 5

- Bjørlykke K (1967) The Eocambrian 'Reusch moraine' at Bigganjargga and the geology Varangerfjord, northern Norway. *Norsk Geologiske Undersøkelse* **251**, 18–44.
- Bjørlykke K, Englund JO & Kirkhusmo LA (1967) .Latest Precambrian and Eocambrian stratigraphy of Norway. *Norsk Geologiske Undersøkelse* **251**, 5–17.
- Coats RP (1967) The "Lower Glacial Sequence" – Sturtian type area. *Quart. Geol. Notes Geol. Surv. S. Austral.* **23**, 1–3.
- Condie KC (1967) Petrology of the late Precambrian tillite (?) association in northern Utah. *Geol. Soc. Am. Bull.* **78**, 1317–1344.
- Forbes BG (1967) Unconformable base of the Appila Tillite west of Pekina. *Quart. Geol. Notes Geol. Surv. S. Austral.* **24**, 6–8.

1966: 3 1

- Howarth RJ, Kilburn C & Leake BE (1966) The Boulder Bed succession at Glencolombkille, County Donegal. *Proc. R. Irish Acad.* **65B**, 117–138.
- Lindsey DA (1966) Sediment transport in a Precambrian ice-age: the Huronian Gowganda Formation. *Science* **154**, 1422–1423.
- Reading HG & Walker RG (1966) Sedimentation of Eocambrian tillites and associated sediments in Finnmark, northern Norway. *Palaeogeog. Palaeoclimatol. Palaeoecol.* **2**, 177–212.
- Thomson BP (1966) Stratigraphic relationships between sediments of Marinoan age—Adelaide region. *Quart. Geol. Notes Geol. Surv. S. Austral.* **20**, 7–9.

1965: 6 1 1

- Delgarno CD & Johnson JE (1965) The Holowilena Ironstone, a Sturtian glacial unit. *Quarterly Quart. Geol. Notes Geol. Surv. S. Austral.* **13**, 2–4.
- Dow DB (1965) Evidence of a Late Pre-Cambrian glaciation in the Kimberley Region of Western Australia. *Geol. Mag.* **102**, 407–419.
- Kilburn C, Pitcher WS & Shackleton RM (1965) Stratigraphy and origin of the Port Askaig Boulder Bed series (Dalradian). *Geol. J.* **4**, 343–360.
- Martin H (1965a) *The Precambrian Geology of South West Africa and Namaqualand*. Precambrian Research Unit Bull. **1**, University of Cape Town, South Africa, 159 p.
- Martin H (1965b) *Beobachtungen zum Problem der jung-präkambrischen Glazialen Ablagerungen in Südwestafrika* (Observations concerning the problem of the late Precambrian glacial deposits in South West Africa). *Geol. Rundsch.* **54**, 115–127.
- Öpik EJ (1965) Climatic change in cosmic perspective. *Icarus* **4**(3), 223–334.
- Schenk PE (1965) Depositional environment of the Gowganda Formation (Precambrian) at the south end of Lake Timagami, Ontario. *J. Sed. Petrol.* **35**, 309–318.

1964: 17

- Almeida FFM de (1964) Glaciação eocambriana em Mato Grosso. *Dep. Nac. Prod. Min., Div. Geol. Min., Notas Prel. Estudos* **117**, 1–11.
- Chumakov NM (1964) Präkambrische tillit-ähnliche Gesteine der Sowjetunion. *Geol. Rundsch.* **54**, 83–102.
- Coates RP (1964) Umberatana Group. *Quart. Geol. Notes, Geol. Surv. S. Austral.* **9**, 7–12.
- Delgarno CR & Johnson JE (1964) Wilpena Group (new name). *Quart. Geol. Notes Geol. Surv. S. Austral.* **9**, 12–16.
- Delgarno CD & Johnson JE (1964) Glacials of the Marinoan Series. *Quart. Geol. Notes Geol. Surv. S. Austral.* **11**, 3–4.
- Fiala F (1964) Eokambrische Tillite der Zelezné hory, Ostböhmen. *Geol. Rundsch.* **54**, 102–115.

- Graindor MJ (1964) Les tillites ante-cambriennes de Normandie. *Geol. Rundsch.* **54**, 61–83.
- Harland WB (1964) Evidence of late Precambrian glaciation and its significance, in Nairn, A.E.M. (ed.) *Problems in Palaeoclimatology*. Interscience, London, pp. 119–149.
- Harland WB (1964) Critical evidence for a great infra-Cambrian glaciation. *Geol. Rundsch.* **54**, 45–61.
- Harland WB & Rudwick MJS (1964) The great infra-Cambrian ice age. *Sci. Am.* **211**(2), 28–36.
- Mirams RC (1964) A Sturtian glacial pavement at Merinjina Well, near Woollana. *Quart. Geol. Notes Geol. Surv. S. Austral.* **11**, 4–6.
- Rudwick MJS (1964) The infra-Cambrian glaciation and the origin of the Cambrian fauna, in Nairn AEM (ed.) *Problems in Palaeoclimatology*. Interscience, London, pp. 150–155 and 184–185.
- Schwarzbach M (1964) *Climates of the Past*. D. Van Nostrand Co, Ltd, London, 328 p. (English translation of the 2nd revised edition of *Das Klima der Vorzeit*. Ferdinand Enke Verlag, Stuttgart, 1961.)
- Schwarzbach M (1964) Paläoklimatologische Eindrücke aus Australien nebst einigen allgemeinen Bemerkungen zur älteren Klimageschichte der Erde. *Geol. Rundsch.* **54**, 128–161.
- Spjeldnaes N (1964) The Eocambrian glaciation in Norway. *Geol. Rundsch.* **54**, 24–45.
- Thompson BP *et al.* (1964) Precambrian rock groups in the Adelaide Geosyncline: a new subdivision—the Umberatana Group. *Quart. Geol. Notes Geol. Surv. S. Austral.* **9**, 7–12.
- Wilson CB & Harland WB (1964) The Polarisbreen Series and other evidences of late pre-Cambrian ice ages in Spitsbergen. *Geol. Mag.* **101**, 198–219.

1963: 3

- Cahen L (1963) *Glaciations anciennes et dérive des continents* (Ancient glaciations and continental drift). *Annales de la Société Géologique de Belgique* **86**, 19–83.
- Green LH & Godwin CI (1963) *Mineral industry of Yukon Territory and southwestern District of Mackenzie, 1962*. Geological Survey of Canada, Paper 63-30, 71 p.
- Schermerhorn LJG & Stanton WI (1963) Tilloids in the West Congo geosyncline. *Quart. J. Geol. Soc., Lond.* **119**, 201–241.

1961: 3

- Bidgood DET & Harland WB (1961) Palaeomagnetism in some east Greenland sedimentary rocks. *Nature* **189**, 633–634.
- Dott RHJr (1961) Squantum “tillite”, Massachusetts—evidence of glaciation or subaqueous mass movements? *Geol. Soc. Am. Bull.* **72**, 1289–1305.
- Katz HR (1961) Late Precambrian to Cambrian stratigraphy in East Greenland, in Raasch, G.O. (ed.) *Geology of the Arctic, Vol 1*. University of Toronto Press, Toronto, pp. 299–328.

1960: 4

- Dangeard L & Doré F (1960) La tillite antecambrienne de St Germain d'Ectot (Calvados). *21st Intl Geol. Congr., Copenhagen, 1960, Pt. VIII. Late Pre-Cambrian and Cambrian stratigraphy*, 24–25.
- Holtedahl O (1960) Stratigraphy of the Sparagmite Group, including the sandstone divisions of Finnmark, in Holtedahl, O. (ed.), *Geology of Norway. Norges Geologiske Undersøkelse* **208**, 111–127.
- Schwarzbach M (1960) Der “Squantum-Tillit” bei Boston als Beispiel für die Problematik Paläoklimatischer Zeitmarken. *Geol. Rundsch.* **49**, 103–108.
- Ziegler PA (1960) Frühpaläozoische Tillite in östlichen Yukon-Territorium (Kanada). *Eclogae Geologicae Helveticae* **52**, 735–741.

1959: 3

Harland WB & Bidgood DET (1959) Palaeomagnetism in some Norwegian sparagmites and the late pre-Cambrian ice age. *Nature* **184**, 1860–1862.

Maciel P (1959) Tilito Cambriano(?) no Estado de Mato Grosso. *Sociedade Brasileira Geologia Boletino* **8**, 3–49.

Schüller A & Ying SJ (1959) Das Sinian-System in China. *Geologie* **8**, 699–720.

1957: 2

Graindor MJ, (1957) *Le Briovérien dans le nord-est du massif américain*. Min. Ind. Comm., Mem. Serv. Explication Carte Geol. Detail, France.

Sommer, M., (1957) Geologie von Lyells Land, NE-Grönland. *Meddelelser om Grønland* **155**(2), 1–157.

1956: 2

Harland, W.B. & Wilson, C.B., 1956. The Hecla Hoek Succession in Ny Friesland, Spitsbergen. *Geological Magazine* **93**, 2265–286.

Troelsen, J.C., 1956. The Cambrian of North Greenland and Ellesmere Island. In: *El Sistema Cambrico, su Paleogeografía y el Problema de Su Base*. 20th International Geological Congress, Mexico City, Symp. **3**(1), 71–90. [Moraenesø Fm, Independence Fjord, NE Greenland]

1955: 6 2

Ahmad F (1955) An ancient tillite in central India. *Quart. J. Mineralog. Metallurg. Soc. India* **27**, 157–161.

Campana B & Wilson RB (1955) Tillites and related glacial topography of South Australia. *Eclogae Geologicae Helvetiae* **48**(1), 1–30, plus map and cross-sections.

Schaub HP (1955) Tectonics and morphology of Kap Oswald (NE-Greenland). *Meddelelser om Grønland* **103**(10), 33 p.

Schaub HP (1955) On the Pre-Cambrian to Cambrian sedimentation in NE Greenland. *Meddelelser om Grønland* **114**(10), 50 p.

Wang YL (1955) The Sinian tillite and its stratigraphical significance. *Acta Geologica Sinica* **35**(4), 327 (English summary).

Wiebols JH (1955) A suggested glacial origin for the Witwatersrand conglomerates. *Trans. Geol. Soc. S. Afr.* **48**, 367–387.

1954: 2

Holmsen P (1954) Om morenekonglomeratet i sparamittformasjonen i det sydlige Norge. *Geol. Fören. Förhandl.* **76**, 105–121.

Sutton J & Watson J (1954) Ice-borne boulders in the Macduff group of the Dalradian of Banffshire. *Geol. Mag.* **91**, 391–398.

1953: 3

Eha S (1953) The pre-Devonian sediments on Ymers Ø, Suess land, and Ella Ø (East Greenland) and their tectonics. *Meddelelser om Grønland* **111**(2), 1–105.

Fränkl E (1953) Die geologische Karte von Nord-Scoresby Land (NE-Grönland). *Meddelelser om Grønland* **113**(6), 1–56.

Holtedahl O (1953) Norges Geologi. *Norges Geol. Unders.* **164**, 2 vols, 1118 p., maps and plates.

1952: 1

Wilson AF (1952) Precambrian tillites east of the Everard Ranges, north-western South Australia. *Trans. R. Soc. S. Austral.* **75**, 160–163.

1951: 3

Kulling O (1951) Spår av Varangeristiden i Norrbotten. Eokambriska varvkiffrar och tilliter i Norrbottensfällens östra rand, i Nordligaste Sverige [English summary: Traces of the Varanger Ice Age in the Caledonides of Norrbotten, Northern Sweden]. *Sveriges Geologiska Undersökning, Avhandlingar och uppsatser, Series C, no. 503, Årsbok 43* for 1949, 1–44.

Poulsen C & Rasmussen HW (1951) Geological map (scale 1:50,000) and description of Ella Ø. *Grønlands Geologiske Undersøgelse, Bull. 3*, 25 p., geological maps 1:50,000 and 1:10,000 scales.

Wegmann, E., (1951) Subkambrische Tillite in der herzynischen Faltungszzone. *Geologische Rundschau 39*, 221–

1950: 5

Cahen L (1950) Le Calcaire de Sekelolo, le Complexe tillitique et la Dolomie rose C₁ dans l'Anticlinal de Congo dia Kati (Bas-Congo). *Annales du Musée du Congo Belge, Sci. Géol. 7*, 13–54, 19 plates.

Huber W (1950) Geologisch-petrographische Untersuchungen in der Innern Fjordregion des Kejsers Franz Josephs Fjordsystems in Nordostgrønland. *Meddelelser om Grønland 151*(3), 1–83.

Mawson D & Sprigg RC (1950) Subdivision of the Adelaide System. *Austral. J. Sci. 13*, 69–72.

Schaub HP (1950) On the Pre-Cambrian to Cambrian sedimentation in NE-Greenland. *Meddelelser om Grønland 114*(10), 1–50.

Wegmann CE, Dangeard L & Graindor MJ (1950) Sur quelques caractères remarquables de la formation pré-cambrienne connue sous le nom de Poudinage de Granville. *Compte Rendus 230*, 979–.

1949: 5

Kautsky G (1949) Eokambrische Tillitforekommen in Norrbotten, Schweden. *Geol. Fören. Förhandl. 71*, 595–603.

Kulling O (1949) Spår av Varangeristiden i Norrbotten. *Sveriges Geologiska Undersökning, Ser. C, 43*(1), 1–44.

Mawson D (1949) The Late Precambrian ice age and glacial record of the Bibliando dome. *J. Proc. R. Soc. New South Wales 82*, 150–174.

Mawson (1949) Sturtian tillite of Mount Jacob and Mount Warren Hastings, north Flinders Ranges. *Trans. R. Soc. S. Austral. 72*, 244–251.

Mawson D (1949) The Elatina glaciation: a third recurrence of glaciation evidenced in the Adelaide System. *Trans. R. Soc. S. Austral. 73*, 117–121.

1947: 1 [83 Cryogenian: 1871–1948, or 1.08/yr]

Carey SW (1947) Occurrence of tillite on King Island. *Rep. Austral. Assoc. Adv. Sci. 52*, 349.

1945: 1

Oftedahl C (1945) Om tillitene i det central-norske Sparagmitområde. *Norsk Geologiske Tidsskrif 25*.

1943: 2

Gaertner HR v (1943) Bemerkungen über den Tillit von Bigganjarga am Varangerfjord. *Geol. Rundsch. 34*, 226–231.

Pettijohn FJ (1943) Basal Huronian conglomerates of Menominee and Calumet districts, Michigan. *J. Geol. 51*(6), 387–397.

1942: 1

Schwellnus CM (1942) The Nama tillite in the Klein Kharas Mountains, S. W. A. *Trans. Geol. Soc. S. Afr. 44*, 19–.

1941: 2

Fleming WSL & Edmonds JM (1941) Hecla Hoek rocks of New Friesland (Spitsbergen). *Geol. Mag.* **78**, 405–428.

le Roex HD (1941) A tillite in the Otavi Mountains, S.W.A. *Trans. Geol. Soc. S. Afr.* **44**, 207–218.

1940: 10

Browne WR (1940) Late Proterozoic(?) glaciation in Australia. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 57–63, 1 plate.

Davies KA (1940) The glacial series of Bunyoro, north Uganda. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 115–119.

Gevers TW & Beetz W (1940) Pre-Dwyka glacial periods in southern Africa. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 65–98.

Howell BF (1940) Late Proterozoic and Early Cambrian climates. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 7–10.

Lee JS & Lee YY (1940) Sinian glaciation of China. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 33–41.

Mawson D (1940) Tillite and other rocks from Hallet Cove, S.A. *Transactions of the Royal Society of South Australia* **64**(2), 362.

Norin E (1940) The Cambrian and sub-Cambrian sediments of central Kuruk-Tagh, eastern Tien-Shan. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 29–31, 1 fig., 3 plates.

Robert M (1940) La glaciation du Kundelungu au Katanga (Congo Belge). *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 99–113.

Strand T (1940) Fossil climates as indicated by the Eocambrian and Paleozoic deposits in Norway. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 11–20.

Tchurakov AN (1940) Die Proterozoische Vergletscherung Sibiriens. *Rep. 17th Session, Intl Geol. Congr. 1937, Moscow* **6**, 21–28, 1 fig., 1 plate.

1939: 2

Davies KA (1939) The glacial sediments of Bunyoro, N.W. Uganda. *Bull. Geol. Surv. Uganda*, **3**, 20–37.

Thiesmeyer LR (1939) Varved slates in Fauquier County, Virginia. *Bull. Geol. Surv. Virginia*, **51**(D), 105.

1938: 2

Kulling O (1938) Notes on varved boulder-bearing mudstone in Eocambrian glacials in the mountains of Northern Sweden. *Geologiska Föreningens I Stockholm Förhandlingar* **60**(3), 392–396.

Simpson Sir G (1938) Ice ages. *Nature Suppl.* **141**(3570), 591–598.

1937: 4

Føyn S (1937) The Eocambrian series of the Tana district, northern Norway. *Norsk Geologisk Tidsskrift* **17**, 65–164, 4 plates, 1:250,000 scale map.

Hatfield WC (1937) The geology of the Solwezi district, Northern Rhodesia. *Quart. J. Geol. Soc., Lond.* **93**, 127–155.

Lupander K (1933) *Sedimentformationen på Fiskarhalvön*. Bull. Geol. Surv. Finland 104, Helsingfors.

Norin E (1937) Geology of the western Quruq Tagh, eastern Tien Shan. *Reports of the Sino-Swedish Expedition III. Geology*. Bokförlags Aktiebolaget Thule, Stockholm, 194 p.

1936: 2

Lee YY (1936) The Sinian glaciation in the lower Yangtze valley. *Bull. Geol. Soc. China* **15**, 131–134.

Pettijohn FJ (1936) Pre-Cambrian varved slate in northwestern Ontario. *Geol. Soc. Am. Bull.* **47**, 621–.

1935: 1

Grosemans P (1935) Contribution a l'Étude du conglomérat de base (Petit Conglomérat) du Kundelungu supérieure. *Annales de la Service des Mines, Comité Spéciale du Katanga* **5**, 38–57.

1934: 1

Kulling O (1934) Scientific results of the Swedish-Norwegian Arctic expedition in the summer of 1931. *Geografiska Annaler Stockholm* **16**, 161–253.

1933: 2

Baud L (1933) Le conglomérat argilo-calcaireux dans la région de Kayes et de Bafoulé et sa position stratigraphique. *Compte Rendu* **197**, 172–173.

Furon R (1933) *Observations sur la stratigraphie de l'ouest africain (Mauritanie et Soudan)*. *Compte Rendu* **196**, 1905–1906.

1932: 5

Blackwelder E (1932) An ancient glacial formation in Utah. *J. Geol.* **40**, 289–304.

De Kock WP & Gevers TW (1933) The Chuos Tillite in the Rehoboth and Windhoek districts, South-West Africa. *Trans. Geol. Soc. S. Afr.* **35**, 115–118.

Jackson GCA (1932) The geology of the N'Changa district, Northern Rhodesia. *Quart. J. Geol. Soc., Lond.* **88**, 443–515.

Kulling O (1932) Några geologiska resultat från expeditionen till Nordostlandet 1931. *Geol. Fören. Stockh. Förh.* **54**, 138–146.

Tchurakov AN (1932) Traces of Proterozoic glaciation in the southern part of Central Siberia. *Geol. Soc. Am. Bull.* **43**, 581–602.

1931: 2

Gevers TW (1931) An ancient tillite in South-West Africa. *Transactions of the Geological Society of South Africa* **34**, 1–17.

Rosendahl H (1931) Bidrag til Varangernesets geologi. *Norsk Geologisk Tidsskrift* **25**, 327–349.

1930: 6

Moraes Rego LF de (1930) Glaciação eopaleozóica no centro do Brazil. *Anais Academia Brasileira de Ciências* **2**, 109–112.

Holtedahl O (1930) Additional observations on the rock formations of Finnmarken, northern Norway. *Norsk Geologisk Tidsskrift* **11**, 16–279.

Kulling O (1930) Stratigraphic studies of the geology of Northeast Greenland. *Meddelelser om Grønland* **74**, 317–346.

Nikolaev J (1930) The glacial deposits (tillites) of Lower Cambrian age in the Yenissei Range. *Bulletin of the Geological and Prospecting Service of the U.S.S.R.* **49**(7), 1–15.

Poulsen C (1930) Contributions to the stratigraphy of the Cambro-Ordovician of East Greenland. *Meddelelser om Grønland* **74**(12), 297–316.

Rogers AW (1930) Pre-Cape tillites in the Union of South Africa. *Intl Geol. Congr., Compte Rendu XV Session, South Africa, 1929*. Vol. II, 83–84, Pretoria.

1929: 3

- Beetz W (1929) Über das Wahrscheinlich altcambrische oder jungproterozoische Alter der Glazialschichten an der Basis des Kundelungu-Systems in Katanga und am unteren Kongo. *Neues Jahrbuch für Mineralogie, Geologie und Paläontologie, Beilagebände. Abteilung B.* Bd. **61**, 61–82.
- Howchin W (1929) *The Geology of South Australia, 2nd ed.* Gillingham & Co., Ltd., Adelaide.
- Nicolaev IG (1929) Glacial deposits—tillites—of the Lower Cambrian age in the Yenisei Ridge. *Compte Rendu. XV, Intl Geol. Congr., South Africa*, No. **14A**, 103–110.

1928: 1

- Howchin, W., (1928) The Sturtian Tillite and associated beds on the western scarps of the southern Flinders Ranges. *Transactions of the Royal Society of South Australia* **52**, 82–94.

1927: 1

- Howchin W (1927) The Sturtian Tillite in the neighbourhood of Eden and in the Hundreds of Kapunda, Neales and English, South Australia. *Trans. R. Soc. S. Austral.* **51**, 330–349.

1926. 5

- Blackwelder E (1926) Precambrian geology of the Medicine Bow Mountains. *Geol. Soc. Am. Bull.* **37**, 615–658.
- Brooks CEP (1926) *Climate Through the Ages.* R. V. Coleman, New York, 439 p. [See pp. 32–33.]
- Coleman AP (1926) *Ice ages, recent and ancient.* MacMillan, New York, 296 pp.
- Howchin W (1926) The Sturtian Tillite in the Willouran Ranges near Maree (Hergott) and in the northeast portions of the Flinders Ranges. *Rep. Austral. Assoc. Adv. Sci.* **17**, 67–76.
- Wadia DN (1926) *Geology of India.* London, 1926.

1924: 1

- Lee JS & Chao YT (1924) Geology of the gorge district of the Yangtze (from Ichang to Tzekuei) with special reference to the development of the gorges. *Bull. Geol. Soc. China* **3**, 351–391.

1923: 1

- Anderson EM (1923). The geology of the schists of the Schichallion district (Perthshire). *Quart. J. Geol. Soc., Lond.*, **79**, 423–445.

1922: 1

- Holtedahl O (1922). A tillite-like conglomerate in the "Eocambrian" sparagmite of southern Norway. *Am. J. Sci.* **4**, 165–173.

1920: 1

- Howchin W (1920) Past glacial action in Australia. *Official Yearbook of the Australian Census and Statistics Bureau* **13**, 1133–1146.

1918: 2

- Holtedahl O (1918) Varangerhalvøen: Strøet omkring bunden av Varangerfjord. *Norsk Geologiske Undersøkelse* **84**, 148–173.
- Howchin W (1918) *The Geology of South Australia, 1st edition.* Gillingham & Co., Ltd., Adelaide, 543 p.

1916: 1

- Waterhouse LL (1916) Notes on the geology of King Island. *Annual Report to the Secretary for Mines, Tasmania, for 1915*, 88–93.

1915: 1

Rogers AW (1915) The geology of part of Namaqualand. *Trans. Geol. Soc. S. Afr.* **18**, 72–101, 14 plates.

1914: 1

Sayles RW (1914) The Squantum Tillite. *Bulletin of the Museum of Comparative Zoology at Harvard College* **56**, 141–175, 12 plates, Cambridge, MA.

1913: 3

Hintze FF (1913) A contribution to the geology of the Wasatch Mountains, Utah. *Annals New York Acad. Sci.* **23**, 85–143.

Jack RL (1913) The Mount Grainger Goldfield. *Rep. Geol. Surv. S. Austral.* **2**, 1–24.

Wilson ME (1913) The Cobalt Series, its character and origin. *J. Geol.* **21**, 121–141.

1912: 3

Howchin W (1912a) Australian glaciations. *Journal of Geology* **20**, 193–227.

Howchin W (1912b) Glacial Phenomena Committee: Cambrian and Permo-carboniferous glaciation. *Rep. Austral. Assoc. Adv. Sci.* **13**, 203–208.

Mawson D (1912) Geological investigations in the Broken Hill Area [glacial-interglacial—glacial successions]. *Mem. R. Soc. S. Austral.* **2**, 211–319.

1911: 1

Howchin W (1911) Über die Glazialschieten Cambrischen Alters in Südaustralien Eine Entgegnung. *Zeitschrift der Deutschen Geologischen Gesellschaft* **63**, 220–228.

1910: 1

Sayles, R.W. & LaForge, L., (1910) The glacial origin of the Roxbury Conglomerate. *Science* **32**, 723–724.

1908: 3

Coleman, A.P., (1908) The Lower Huronian ice age. *Journal of Geology* **16**, 149–158.

Holland, T.H., (1908) On the occurrence of striated boulders in the Blaini Formation of Simla, with a discussion of the geological age of the beds. *Records of the Geological Survey of India* **37**(3), 129–135.

Howchin, W., (1908) Glacial beds of Cambrian age in South Australia. *Quarterly Journal of the Geological Society, London* **64**, 234–259.

1907: 6

Blackwelder E & Willis B (1907) Research in China, Vol. 1:I, II. *Carnegie Institution of Washington, Publ.* 54, Washington, D.C.

Coleman AP (1907) A Lower Huronian ice age. *Am. J. Sci.* **23**, 187–192.

David TWE (1907a) Glaciation in Lower Cambrian, possibly Pre-Cambrian time *Rep. 10th Session, Intl Geol. Congr. 1906, Mexico* **1**, 271–274.

David, TWE (1907b) Conditions of climate at different geological epochs, with special reference to glacial epochs. *Rep. 10th Session, Intl Geol. Congr. 1906, Mexico* **1**, 437–482.

David TWE (1907c) Some problems of Asutralian glaciations. *Rep. Austral. Assoc. Ad. Sci.* **11**, 457–465.

Howchin W (1907) South Australia: Cambrian and (?)Permo-Carboniferous glaciation. *Rep Austral. Assoc. Adv. Sci.* **11**, 264–273.

1906: 2

Rogers AW (1906) Geological survey of parts of Hay and Prieska, with some notes on Herbert and Barkly West. *10th Annu. Rep. Geol. Comm. Cape Good Hope for 1905*, 141–204.

Schwarz EHL (1906) The three Paleozoic ice-ages of South Africa. *J. Geol.* **14**(8), 683–691.

1904: 1

Willis B (1904) Geological research in eastern Asia. *Carnegie Institution of Washington, Yearbook* **3**, Washington, D.C., 275–291.

1903: 1

David TWE (1903) Note by T.W. Edgeworth David. *Rep. Austral. Assoc. Adv. Sci.* **9**, 199–200.

1901: 2

Chewings C (1901) Notes on glacial beds of Cambrian age in the far north of South Australia. *Trans. R. Soc. S. Austral.* **25**, 45–47.

Howchin W (1901) Preliminary note on the existence of glacial beds of Cambrian age in South Australia. *Trans. R. Soc. S. Austral.* **21**, 74–86.

1898: 1

Garwood EJ & Gregory JW (1898) Contribution to the glacial geology of Spitsbergen. *Quart. J. Geol. Soc., Lond.* **54**, 19–225.

1897: 1

Strahan A (1897) On glacial phenomena of Paleozoic age in the Varanger Fiord. *Quart. J. Geol. Soc., Lond.* **53**, 137–146, and Discussion, 153–156.

1893: 1

Howorth Sr HH (1893) *The Glacial Nightmare and the Flood* (2 vol.). Sampson Low, Marston & Co., London, 920 p.

1891: 1

Reusch H (1891) *Skuringmærker og morængrus eftervist i Finnmarken fra en periode meget ældre end 'istiden'* (Glacial striae and boulder-clay in Norwegian Lapponie from a period much older than the last ice age). *Norges Geologiske Undersøkelse* **1**, 78–85 and 97–100.

1884: 1

Woodward HP (1884) Report on the range to the east of Farina. *Parliamentary Papers for 1884. Government of South Australia* **40**, 1–5.

1877: 1

Thomson J (1877) On the geology of the island of Islay. *Trans. Geol. Soc. Glasgow* **5**, 200–222.

1871: 1

Thomson J (1871) On the stratified rocks of Islay. *Rep. 41st Mtg British Assoc. Adv. Sci. Edinburgh*, John Murray, London, pp. 110–111.