



Publications 2005

Peer-reviewed articles

- Ahlberg P, Szaniawski H, Clarkson ENK, Bengtson S. Phosphatised olenid trilobites and associated fauna from the Upper Cambrian of Västergötland, Sweden. *Acta Palaeontologica Polonica* 50, 429–440.
- Barfod Hoffmann G, Krogstad EJ, Frei R, Albarède F (2005) Lu-Hf and PbSL geochronology of apatites from Proterozoic terranes: a first look at Lu-Hf isotopic closure in metamorphic apatite. *Geochimica et Cosmochimica Acta* 69: 1847-1859.
- Bengtson S. Mineralized skeletons and early animal evolution. In: Briggs DEG (ed.): *Evolving Form and Function: Fossils and Development*, pp. 101–124. Yale Peabody Museum, New Haven, CT.
- Bock B, Liebetrau V, Eisenhauer A, Frei R, Leipe T (2005) Nd isotope signature of Holocene Baltic Mn/Fe precipitates as monitor of climate change during the Little Ice Age. *Geochimica et Cosmochimica Acta* 69: 2253-2263.
- Canfield DE (2005) The early history of atmospheric oxygen: Homage to Robert M. Garrels. *Annual Reviews of Earth and Planetary Science* 33: 1-36.
- Canfield DE, Kristensen E, Thamdrup B (2005) *Aquatic Geomicrobiology*. Elsevier.
- Dahl PS, Hamilton MA, Jercinovic ML, Terry MP, Williams ML, Frei R (2005) Comparative isotopic and chemical geochronometry of monazite, with implications for U-Th-Pb dating by electron microprobe: An example from metamorphic rocks of the eastern Wyoming Craton (U.S.A.). *American Mineralogist* 90: 619-638.
- Dalsgaard T, Thamdrup B, Canfield DE (2005) Anaerobic ammonium oxidation (anammox) in the marine environment. *Research in Microbiology* 156: 457–464.
- Decker KLM, Potter CS, Bebout B, Des Marais DJ, Carpenter S, Discipulo M, Hoehler T, Miller SR, Thamdrup B, Turk K (2005) Mathematical simulation of the diel O, S, and C biogeochemistry of a hypersaline microbial mat. *FEMS Microbiology Ecology* 52: 377-395.
- Frei R, Rosing MT (2005) Search for traces of the late heavy bombardment on Earth - Results from high precision chromium isotopes. *Earth and Planetary Science Letters* 205: 28-40.
- Gervilla F, Proenza JA, Frei R, Gonzales-Jimenez JM, Garrido CJ, Melgarejo JC, Meibom A, Diaz-Martinez R, Lavaut W (2005) Distribution of platinum-group elements and Os isotopes in chromite ores from Mayari-Baracoa Ophiolitic Belt (eastern Cuba). *Contributions to Mineralogy and Petrology* 150: 589-607.
- Goldberg T, Poulton SW, Strauss H (2005) Sulphur and oxygen isotope signatures of late Neoproterozoic to early Cambrian sulphate, Yangtze Platform: Diagenetic constraints and seawater evolution. *Precambrian Research* 137: 223-241.
- Habicht, K. S., Salling, L., Thamdrup, B. & Canfield, D. E. (2005) The effect of low sulfate concentration on lactate oxidation and isotope fractionation during sulfate reductions by *Archeoglobus fulgidus* strain Z. *Applied and Environmental Microbiology* 71: 3770-3777.
- Honeycutt CE, Plotnick RE (2005) Mathematical analysis of Paleodictyon: a graph theory approach. *Lethaia* 35: 345-350.
- Hulth S, Aller RC, Canfield DE, Dalsgaard T, Engström P, Gilbert F, Sundbäck K, Thamdrup B (2005) Nitrogen removal in marine environments: recent findings and future research challenges. *Marine Chemistry* 94: 125-145.

- Jensen MM, Holmer M, Thamdrup B (2005) Composition and diagenesis of neutral carbohydrates in sediments of the Baltic-North Sea transition. *Geochimica et Cosmochimica Acta* 69: 4085-4099.
- Johnston DT, Farquhar J, Wing BA, Kaufman AJ, Canfield DE, Habicht KS (2005) Multiple sulfur isotope fractionations in biological systems: A case study with sulfate reducers and sulfur disproportionators. *American Journal of Science* 305: 645-660.
- Johnston DT, Wing BA, Farquhar J, Kaufman AJ, Strauss H, Lyons TW, Kah LC, Canfield DE. Sulfur isotope evidence for progressive oxygenation of the biosphere and active microbial sulfur disproportionation in the Mesoproterozoic. *Science* 310: 1477-1479.
- Kamber BS, Whitehouse MJ, Bolhar R, Moorbath S (2005). Volcanic resurfacing and the early terrestrial crust: Zircon U–Pb and REE constraints from the Isua Greenstone Belt, southern West Greenland. *Earth and Planetary Science Letters* 240: 276-290.
- Kouchinsky A, Bengtson S, Pavlov V, Val'kov A, Runnegar B, Young, E. Pre-Tommotian age of the lower Pestrosvet Formation in the Selinde section on the Siberian platform: carbon isotopic evidence. *Geological Magazine* 142, 319–325.
- Olsen SM, Shaffer G, Bjerrum CJ (2005) Ocean oxygen isotope constraints on mechanisms for millennial-scale climate variability. *Paleoceanography*: 20, PA1014, 10.1029/2004PA001063.
- Polat A, Frei R (2005) The origin of early Archean banded iron formations and of continental crust, Isua, southern West Greenland. *Precambrian Research* 138: 151-175.
- Poulton SW, Canfield DE (2005) Development of a sequential extraction procedure for iron: Implications for iron partitioning in continentally-derived particulates. *Chemical Geology* 214: 209-221.
- Poulton SW, Raiswell R (2005) Chemical and physical characteristics of iron oxides in riverine and glacial meltwater sediments. *Chemical Geology* 218: 203-221.
- Rosing, MT (2005) Thermodynamics of life on the planetary scale. *International Journal of Astrobiology* 4: 9-11.
- Sørensen KB, Canfield DE, Teske AP, Oren A (2005) Community composition of a hypersaline endoevaporitic microbial mat. *Applied and Environmental Microbiology* 71: 7352-7365.
- Whitehouse MJ, Kamber BS, Fedo CM, Lepland A (2005). Integrated Pb- and S-isotope investigation of sulphide minerals from the Early Archaean of southwest Greenland. *Chemical Geology* 222: 112-131
- Wieland A, Zopfi J, Benthien M, Köhl M (2005) Biogeochemistry of an iron-rich hypersaline microbial mat (Camarque, France). *Microbial Ecology* 49: 34-49.

Popular articles

- Rosing MT (2005) Diskobugtens Bill Gates. *Tidsskriftet Grønland* 2005/8: 308-313.
- Rosing MT (2005) Livets grønlandske barndom. Almanakken, Københavns Universitet.

Teaching book

- Habicht K, Momme P. Jorden og livets tidlige udvikling, in *Geografihåndbogen*, by Andersen T, Brande-Lavridsen H, Brøndum P, Christensen KE, Habicht K, Hansen HS, Kristensen PN, Jensen E, Johansen G, Larsen A, Lund H, List KM, Momme P, Möller B, Pedersen OS, Sestoft AIP, Strømgaard P (Systeme A/S., Århus).

Research cited

- Arrigo KR (2005) Marine microorganisms and global nutrient cycles. *Nature* 437: 349-355. doi:10.1038/nature04159.