

Prof. Birger Rasmussen



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Education

B.A. Geology, China University of Geosciences, Wuhan, China, 1999
Ph.D. Sedimentary petrology and petroleum geology, 1992

Work Experience

Strategic Research Fellow, Professorial Fellowship, Curtin University, Perth, Australia, 2007-present

Research Interests

Earth's early biosphere and environment

Major Publications

- Rasmussen, B., J. Zi, S. Sheppard, B. Krapež, and J. R. Muhling. 2016. "Multiple episodes of hematite mineralization indicated by U-Pb dating of iron-ore deposits, Marquette Range, Michigan, USA." *Geology* 44 (7): 547-550.
- Downes, P., D. J. Dunkley, I. R. Fletcher, N. J. McNaughton, B. Rasmussen, A. Jaques, M. Verrall, and M. Sweetapple. 2016. "Zirconolite, zircon and monazite-(Ce) U-Th-Pb age constraints on the emplacement, deformation and alteration history of the Cummins Range Carbonatite Complex, Halls Creek Orogen, Kimberley region, Western Australia." *Mineralogy and Petrology* 110 (2-3): 199-222.
- Sheppard, S., I. Fletcher, B. Rasmussen, J. Zi, J. R. Muhling, S. Occhipinti, M. Wingate, and S. Johnson. 2016. "A new Paleoproterozoic tectonic history of the eastern Capricorn Orogen, Western Australia, revealed by U-Pb zircon dating of micro-tuffs." *Precambrian Research* 286: 1-19.
- Rasmussen, B., J. R. Muhling, A. Suvorova, and B. Krapež. 2016. "Dust to dust: Evidence for the formation of "primary" hematite dust in banded iron formations via oxidation of iron silicate nanoparticles." *Precambrian Research* 284: 49-63.
- Sheppard, S., B. Krapež, J. Zi, B. Rasmussen, and I. Fletcher. 2016. "The 1320 Ma intracontinental Wongawobbin Basin, Pilbara, Western Australia: A far-field response to Albany-Fraser-Musgrave tectonics." *Precambrian Research* 285: 58-79.
- Doyle, M., I. R. Fletcher, J. Foster, R. Large, R. Mathur, N. J. McNaughton, S. Meffre, J. R. Muhling, D. Phillips, and B. Rasmussen. 2015. "Geochronological Constraints on the Tropicana Gold Deposit and Albany-Fraser Orogen, Western Australia." *Economic Geology* 110: 355-386.
- Rasmussen, B., B. Krapez, J. R. Muhling, and A. Suvorova. 2015. "Precipitation of iron silicate nanoparticles in early Precambrian oceans marks Earth's first iron age." *Geology* 43 (4): 303-

- Rasmussen, B., B. Krapez, and J. R. Muhling. 2015. "Seafloor silicification and hardground development during deposition of 2.5 Ga banded iron formations." *Geology* 43 (3): 235-238.
- Maier, W., B. Rasmussen, I. R. Fletcher, B. Godel, S. Barnes, L. Fisher, S. Yang, H. Huhma, and Y. Lahaye. 2015. "Petrogenesis of the ~277 Ga Monts de Cristal Complex, Gabon: Evidence for Direct Precipitation of Pt-arsenides from Basaltic Magma." *Journal of Petrology* 56 (7): 1285-1308.
- Zi, J., B. Rasmussen, J. R. Muhling, I. R. Fletcher, A. Thorne, S. Johnson, H. Cutten, D. J. Dunkley, and F. J. Korhonen. 2015. "In situ U-Pb geochronology of xenotime and monazite from the Abra polymetallic deposit in the Capricorn Orogen, Australia: Dating hydrothermal mineralization and fluid flow in a long-lived crustal structure." *Precambrian Research* 260: 91-112.
- Rasmussen, B., I. R. Fletcher, and J. R. Muhling. 2013. "Dating deposition and low-grade metamorphism by in situ U/Pb geochronology of titanite in the Paleoproterozoic Timeball Hill Formation, southern Africa." *Chemical Geology* 351: 29-39.
- Rasmussen, B., A. Bekker, and I. R. Fletcher. 2013. "Correlation of Paleoproterozoic glaciations based on U-Pb zircon ages for tuff beds in the Transvaal and Huronian Supergroups." *Earth and Planetary Science Letters* 382: 173-180.
- Maier, W., B. Rasmussen, I. R. Fletcher, S. J. Barnes, and H. Huhma. 2013. "The Kunene Anorthosite Complex, Namibia, and Its Satellite Intrusions: Geochemistry, Geochronology, and Economic Potential." *Economic Geology* 108: 953-986.
- Rasmussen, B., D. B. Meier, B. Krapez, and J. R. Muhling. 2013. "Iron silicate microgranules as precursor sediments to 2.5-billion-year-old banded iron formations." *Geology* 41 (4): 435-438.