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Brief Summary

I am a genuine German geologist from the lovely South-West. With a background in experimental igneous petrology, I did my previous research on sulfur solubility in adakitic melts and Pb diffusion into zircon. In Curtin, my doctoral research will focus on the crustal evolution and geodynamic setting of the Fraser Zone. Discoveries of Ni-, Cu- and Co in the Fraser Zone of the Albany-Fraser Orogen have demonstrated it is a highly prospective region for orthomagmatic mafic intrusion related mineralization, yet the geological framework is not fully understood for certain components of the orogen. Knowledge of structural and geochemical relationships in this metallogenic province is of great importance, because it will provide information on prospective localities and enables targeting of ore bodies in this zone. In this regard, isotopic mapping is a powerful tool for mineral exploration as it reveals spatial relationships between mineral systems and the crustal framework. Aims of this project are to construct a detailed chronostratigraphic framework and isoscapes (isotopic surface in both space and time) produced through time constrained Nd and Hf isotopic signatures as recorded in accessory minerals (e.g., titanite and zircon). The mapped isotopic values will assist in determining the location of deep lithospheric structures and reveal how they have been modified through time.

Education: B.Sc. & M.Sc. in Geosciences at Johannes Gutenberg University, Mainz, Germany

Research interests: Isotope Geochemistry, Geochronology, Ore Geology, Petrology

Thesis title: Tectonic Setting and Geodynamic Evolution of the Fraser Zone, W. Australia

Supervisors: Chris Kirkland, Katy Evans, Chris Clark, Tim Johnson

Conferences: "ReS₂ Solubility in Silicate Melts" (DMG Meeting, Heidelberg 2019)

Links: <https://scieng.curtin.edu.au/research/timescales-of-mineral-systems/people/>