



## Bryant Ware

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### Brief Summary

My research encompasses the geochemistry and geochronology of various LIPs in Australia and Africa. From using major and trace geochemistry data sets with Sr, Nd, Pb isotopic ratios to investigate the petrogenesis of a 511 Ma old continental flood basalt (CFB) province in northern and central Australia (Kalkarindji), to coupling geochemical methods with high precision  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology to better constrain the duration, evolution, and origin of the Karoo and Ferrar LIPs. The final endeavor of my PhD research was development of utilizing the  $^{40}\text{Ar}/^{39}\text{Ar}$  technique with the mineral pyroxene for CFB geochronology. Pyroxene is an abundant and essential mineral found in all mafic and ultramafic rocks. Therefore, pyroxene will be particularly useful for dating volcanic flows, which, although constituting the bulk of LIPs, are naturally devoid of zircon and can be inaccessible if plagioclase has been altered.

**Education:** University of Wyoming (B.S.); Boise State University (M.S.)

**Research interests:** Igneous Geochemistry and Geochronology

**Thesis title:** Large Igneous Provinces of the Southern Hemisphere: Isotopic Geochemistry and Plagioclase and Pyroxene  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology of the Kalkarindji, Karoo and Ferrar Provinces

**Supervisors:** Associate Professor Fred Jourdan

**Publications:** Ware, B. and Jourdan, F.  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology of terrestrial Pyroxene. GCA – Under Review.

Ware, B., Jourdan F., Merle, R., Chiaradia, M., Hodges, K. Major, Trace, and Isotope Geochemistry of the Kalkarindji Large Igneous Province, Australia: Petrogenesis of the Oldest Province of the Phanerozoic. Ware, Bryant; Jourdan, Fred; Merle, Renaud; Chiaradia, Massimo; Hodges, Kyle. Journal of Petrology – Accepted

**Conferences:** 2017 Goldschmidt (Paris) -2016 Goldschmidt (Tokio) -2015 Goldschmidt (Prague) -2014 American Geophysical Union Annual Meeting (San Francisco).

**Links:** <https://www.linkedin.com/in/bryant-ware-05662b37/>