The AuScope Geochemistry Laboratory Network

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AuScope is an Australian consortium of Earth Science institutes cooperating to develop national research infrastructure. AuScope received federal funding in 2019 to establish the AuScope Geochemistry Laboratory Network (AGN), with the objective of coordinating FAIR-based open data initiatives, support user access to laboratory facilities, and strengthen analytical capability on a national scale.

Activities underway include an assessment of best practices for researchers to register samples using the International Geo Sample Number (IGSN) system in combination with prescribed minima for meta-data collection. Initial activities will focus on testing meta-data schema on high value datasets such as geochronology (SHRIMP U-Pb, Curtin University), geochemistry (Hf-isotopes, Macquarie University) and low-temperature thermochronology analyses (fission track/U-He, University of Melbourne). Collectively, these datasets will lead to a geochemical data repository in the form of an Isotopic Atlas eResearch Platform that is available to the public via the AuScope Discovery Portal. Over time, the repository will aggregate a large volume of publicly funded geochemical data, providing a key resource in quantitatively understanding the evolution of Earth system processes that have shaped the Australian continent and its resources.