Cataloguing and organisation of geochemistry laboratories capabilities through the AuScope Geochemistry Network Laboratory Finder

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Established in 2019, the AuScope Geochemistry Network (AGN) is an Australian consortium of Earth Science institutes cooperating to develop a national geochemistry research infrastructure. The AGN was established in response to a national expression of a need for better organisation and coordination of geochemistry laboratories and data. Last year, the AGN has collaborated with the AuScope Virtual Research Environment (AVRE) program through its Engage activity that supports the development of bespoke small- to medium-scale projects with direct user involvement in the development lifecycle. The Lab Finder was conceived as an online catalogue application to improve access to the geochemistry laboratory capabilities.

The Lab Finder application [1] fits within a broader ecosystem of AGN projects and is an online tool that is designed to connect users with laboratories providing an overview of participating laboratories, their equipment, possibilities of each analytical technique, and laboratory custodian contact information in a user-friendly catalogue interface. The Lab Finder was developed using free and open-source software (FOSS), leveraging prior work and further expanding its capability. The AGN Lab Finder is an adaptation of the Technique Finder originally developed by Intersect for the Australian Microscopy and Microanalysis Research Facility (AMMRF). It is a web application that enables users to identify the techniques most suited to their research, based on a researcher-centric approach and terminology as opposed to instrument-oriented jargon. The application and internal database schema were redesigned to accommodate geochemistry-specific equipment and its analytical capabilities. We further improved the indexing mechanism and search functionality allowing researchers to utilise their analytical capability requirements to efficiently locate and identify laboratories with the equipment necessary to their research needs. In addition to its user-facing interface, the Lab Finder provides a web-based administrative interface for easy database management.

