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## AusGeochem: an Australian AuScope Geochemistry Network data platform for laboratories and their users

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Over the last two years, the Australian AuScope Geochemistry Network (AGN) has developed AusGeochem in collaboration with geoscience-data-solutions company Lithodat Pty Ltd. This open, cloud-based data platform (<https://ausgeochem.auscope.org.au>) serves as a geo-sample registry, with IGSN minting capability, a geochemical data repository and a data analysis tool. With guidance from experts in the field of geochemistry from a number of Australian institutions, and following international standards and best practices, various sample and geochemistry data models were developed that align with the FAIR data principles. AusGeochem is currently accepting data of SIMS U-Pb as well as of fission track and (U-Th-Sm)/He techniques with LA-ICP-MS U-Pb and Lu-Hf, <sup>40</sup>Ar/<sup>39</sup>Ar data models under development. Special attention is paid to the implementation of streamlined workflows for AGN laboratories to facilitate ease of data upload from analytical sessions. Analytical results can then be shared with users through AusGeochem and where required can be kept fully confidential and under embargo for specified periods of time. Once the analytical data on individual samples are finalized, the data can then be made more widely accessible, and where required can be combined into specific datasets that support publications.