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Scottish Alliance for Geoscience, Environment and Society

DR JOHN MACDONALD – UNIVERSITY OF GLASGOW

SAGES SMALL GRANTS SCHEME REPORT

Report

I am an ECR scientist (lecturer) in the School of Geographical and Earth Sciences at the University of Glasgow and was awarded £600 from the SAGES Small Grant Scheme (SSGS) towards attendance at the EGU General Assembly in Vienna, 24-28 May. My main purpose for attending the conference was to present some of my recent research on using clumped isotopes to determine the conditions at which fractures in geothermal energy systems become blocked. Blockage of the fractures by mineral precipitation is detrimental to energy generation and so understanding the conditions at which it occurs can guide future geothermal systems and remediation of existing ones.

I presented a poster in session ERE3.4 “Conventional and unconventional geothermal resources: Advances in integrated approaches for exploration and monitoring”. This is my first research in the field of geothermal energy so presenting in this session helped bring my research and research methods to a new audience. The poster session was very busy and I had many interesting and fruitful discussions around the poster.

In addition to presenting my research, I was able to make new connections and discuss new research ideas with future collaborators, one of the benefits of attending a large international conference such as EGU. One new collaboration is based on the clumped isotope technique which I was presenting on but to be applied to a different energy system. Another potential future collaboration is with an EU scientist heavily involved in geothermal energy research who is keen to involve my geochemical expertise in a possible ERC research proposal. A SAGES PEER support grant is something I may target in future if this research collaboration advances.