

Stuart F. Simmons, PhD

SENIOR RESEARCH SCIENTIST

**Email**

ssimmons@egi.utah.edu

Phone

801-581-4122

Research Interests

- Basin & fluid flow science
- Hydrothermal processes
- Geothermal resources
- Epithermal deposits

Stuart F. Simmons has over 30 years of research experience in studying the geochemistry, mineralogy, and geology of hydrothermal fluid flow. His work focuses on understanding and finding new energy and mineral resources. Stuart has an M.Sc. and Ph.D. in Economic Geology (University of Minnesota), and he spent much of his professional career in New Zealand, at the Geothermal Institute, University of Auckland (1987-2008). From 2011 to 2013, he was a Research Professor at Colorado School of Mines, and prior to that he worked as a consultant to the minerals and geothermal industries. He has worked around the Pacific rim, with recent experience in New Zealand, Chile, and the western United States.

Areas of Expertise

- Inorganic geochemistry of rocks, minerals, and fluids
- Reaction path modeling & mineral deposition/dissolution prediction
- Trace metals, stable isotopes, and fluid inclusions
- Hydrothermal alteration, diagenesis, and secondary minerals
- Two-phase fluid chemistry
- Geothermal and mineral resource assessments

Research Projects

- Fluid-mineral equilibria in Great Basin geothermal resources
- Experimental studies of the chemical stabilities of proppants
- Trace metal geochemistry of hydrothermal fluids & organic-rich sedimentary rocks
- Diagenetic & hydrothermal alteration mineralogy
- Geothermal energy for mines & oil/gas fields
- Mineral scaling in wells & production pipelines
- Transient heat and fluid flow in volcanic belts & sedimentary basins

Contributions

Stuart has published over 70 papers in scientific journals, including Nature, Science, American Journal of Science, Geology, Economic Geology, Geothermics, Journal of Geophysical Research, and Journal of Volcanology and Geothermal Research. He has given a number of invited/keynote presentations at conferences and delivered numerous short courses on geothermal energy and epithermal mineralization.

EMAIL:

ContactEGI@egi.utah.edu

PHONE: (801) 585-3826