

# DR. SAMUEL WARREN SCOTT

## PUBLICATIONS

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### IN PREPARATION

(with S. Fekete, T. Driesner, P. Weis) Temporal variations of stable isotope signatures at hydrothermal advection fronts. In preparation.

(with M. Hermanska, A. Stefansson, N. Keller) Supercritical fluids and contact alteration around magmatic intrusions. In preparation.

### PUBLISHED

- 2017 (with T. Driesner, P. Weis) Boiling and condensation of saline geothermal fluids above magmatic intrusions. *Geophysical Research Letters*. (in press) doi: 10.1002/2016GL071891
- 2016 (with T. Driesner, P. Weis) The thermal structure and temporal evolution of high-enthalpy geothermal systems. *Geothermics*. 62:33-47 doi: 10.1016/j.geothermics.2016.02.004
- 2015 (with T. Driesner, P. Weis) Geologic controls on supercritical geothermal resources above magmatic intrusions. *Nature Communications*. 6:7837, doi:10.1038/ncomms8837
- 2014 (with D. Zevin, T. Driesner, C. Sanchez-Valle, T. Wagner) Volumetric properties of mixed electrolyte aqueous solutions at elevated temperatures and pressures. The systems  $\text{CaCl}_2$ – $\text{NaCl}$ – $\text{H}_2\text{O}$  and  $\text{MgCl}_2$ – $\text{NaCl}$ – $\text{H}_2\text{O}$  to 523.15 K, 70 MPa, and ionic strength from (0.1 to 18)  $\text{mol}\cdot\text{kg}^{-1}$ . *Journal of Chemical & Engineering Data*. 59:8, 2570–2588, doi: 10.1021/je500371u
- 2014 (with I. Gunnarsson, S. Arnórsson, A. Stefánsson) Gas chemistry, boiling and phase segregation in a geothermal system, Hellisheidi, Iceland. *Geochimica et Cosmochimica Acta*. 124, 170-189, doi:10.1016/j.gca.2013.09.027

### SELECTED RECENT ABSTRACTS

- 2016 (with Melchior Grab, Samuel Scott, Beatriz Quintal, Eva Caspari, Hansruedi Maurer, Stewart Greenhalgh) Seismic properties of fluid bearing formations in magmatic geothermal systems: can we directly detect geothermal activity with seismic methods? EGU General Assembly Conference Abstracts, Vienna, Austria
- 2015 (with T. Driesner, P. Weis) Hydrology of a supercritical flow zone near a magmatic intrusion in the IDDP-1 well – Insights from numerical modeling, World Geothermal Congress, Melbourne, Australia
- 2015 (with T. Driesner, P. Weis) A New Generation of Numerical Simulation Tools for Studying the Hydrology of Geothermal Systems to “Supercritical” and Magmatic Conditions, World Geothermal Congress, Melbourne, Australia
- 2014 (with P. Weis, T. Driesner) Numerical modeling of the thermal structure and evolution of hydrothermal systems, Third International Conference on Computational Methods for Thermal Problems, Lake Bled, Slovenia
- 2011 (with I. Gunnarsson, S. Arnórsson, A. Stefánsson, E. Gunnlaugsson) Gas Geochemistry of the Hellisheidi Geothermal Field, SW-Iceland, Thirty-Sixth Workshop on Geothermal Reservoir Engineering, Stanford University
- 2011 (with I. Gunnarsson, B. Sigfússon, A. Stefánsson, S. Arnórsson, E. Gunnlaugsson) Injection of  $\text{H}_2\text{S}$  from the Hellisheidi Geothermal Field, SW-Iceland, Thirty-Sixth Workshop on Geothermal Reservoir Engineering, Stanford University