

HIGH-TEMPERATURE AQUEOUS GEOCHEMISTRY - I

Geol 457/557

- I. Introduction
- II. Geothermal systems
 - A. Steam table calculations
 - B. Chemical geothermometers
 - C. Gas calculations
- III. Review of basic thermodynamics
- IV. Methods of estimation of thermodynamic data
- V. Solubility and complexation calculations
- VI. Mineral stability and speciation diagrams
- VII. Multicomponent equilibrium calculations and reaction-path modeling
- VIII. Structure and properties of water and electrolyte solutions
- IV. Experimental techniques of measuring solubility and complexation
- X. Miscellaneous

There will be a 3-5 day field trip to Yellowstone National Park