

## **Ph.D. Position(s) at Case Western Reserve University**

A research assistantship is available for a Ph.D. student to study the chemical and physical properties of silicate melts. The project involves using molecular dynamics simulations to investigate geologically relevant properties of silicate melts, including density, viscosity, chemical diffusivities and ability to dissolve noble gases and other volatile species. Melt compositions will be studied systematically to isolate how these properties are affected by pressure, temperature and particular aspects of the melt structure, including structure modifier content, cation charge and size, and Al/Si ratio. The overall goal is to obtain a better understanding of the behavior of melts in the deep interiors of planets, and their role in planetary differentiation.

This project is a collaboration between professors James Van Orman (Geological Sciences) and Daniel Lacks (Chemical Engineering). The student could choose to join either department, depending on interests.

Opportunities also exist for Ph.D. or M.S. students to pursue projects in high-pressure experimental geochemistry.

For more information on the projects and application procedure, contact Dr. James Van Orman (email: [james.vanorman@case.edu](mailto:james.vanorman@case.edu); phone (216) 368-3765; web: <http://geology.case.edu/~vanorman>). To ensure full consideration, applications should be received by Feb. 1, 2007.