Kinetics of Thermochemical Reactions Important in the Venus Atmospheric Sulfur Cycle

NAGW-2867

Final Report

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Principal Investigator: Professor Bruce Fegley, Jr.

Department of Earth & Planetary Science

Campus Box 1169

Washington University

One Brookings Drive, St. Louis, MO 63130-4899
Abstract. This final report summarizes the significant accomplishments of research at Washington University in St. Louis for NASA Grant NAGW-2867 "Kinetics of Thermochemical Reactions Important in the Venus Atmospheric Sulfur Cycle", Professor Bruce Fegley, Jr., PI.

Summary. The purpose of this project was to experimentally measure the rates of several thermochemical gas-solid reactions between sulfur gases in the Venus atmosphere and reactive minerals on the hot Venus surface. Despite the great importance of these reactions for the maintenance of significant amounts of sulfur gases (and thus for the maintenance of the global cloud cover) in the atmosphere of Venus, essentially no kinetic data are currently available for them.

Results. The results of this project have all been published in refereed publications. These publications are listed below.


