

Oxygen in the Solar System

Volume 68 of Reviews in Mineralogy and Geochemistry reviews Oxygen in the Solar System, an element that is so critically important in so many ways to planetary science. The book is based on three open workshops:

Oxygen in the Terrestrial Planets, held in Santa Fe, NM July 20-23, 2004;

Oxygen in Asteroids and Meteorites, held in Flagstaff, AZ June 2-3, 2005;

and Oxygen in Earliest Solar System Materials and Processes (and including the outer planets and comets), held in Gatlinburg, TN September 19-22, 2005.

As a consequence of the cross-cutting approach, the final book spans a wide range of fields relating to oxygen, from the stellar nucleosynthesis of oxygen, to its occurrence in the interstellar medium, to the oxidation and isotopic record preserved in 4.56 Ga grains formed at the Solar System's birth, to its abundance and speciation in planets large and small, to its role in the petrologic and physical evolution of the terrestrial planets.

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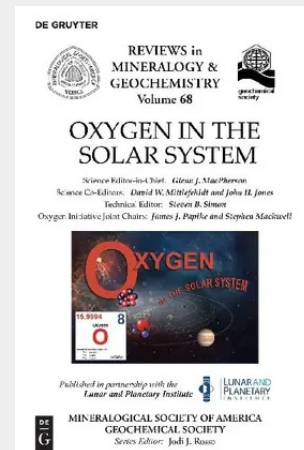
Basalts as probes of planetary interior redox state

Rheological consequences of redox state

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