Geosciences Division
Physical Research Laboratory

Tuesday Seminar

Paleoredox and paleo-pH conditions in Earthly Environments: Implications and Application of Calcium Isotopes

To reconstruct oxygenation and pH history of the Earth's surface environment through time and its effect on the evolution of life on our planet, it is essential to know about paleoredox and paleo-pH conditions. Modern analogs and lab simulations have mostly provided a good understanding about the processes responsible for the isotopic and chemical trends. Paleoredox and paleo-pH conditions characteristic of the water column from which precipitates have formed are recorded in REE and trace elemental concentrations and calcium isotopic variations of the lithified records respectively. In this seminar, I plan to discuss how the REE and trace elemental concentrations have been used to decipher paleoredox proxies and concentrate on a proposal to use calcium isotopes as an indirect proxy of paleo-pH. This study has implications for the improvement of predictive power to understand the processes driving isotope fractionation during changing paleo-environmental conditions through multiproxy approach.

Speaker: Mr. Wriju Chowdhury
JRF, GSDN

Date	Time	Venue
29-March-2016	16:00 hrs	Ground Floor Lecture Hall

All are invited to attend and participate in discussion
Tea at 15:30 hrs

Neeraj Rastogi, Seminar Secretary, Geosciences Division