Geosciences Division
Physical Research Laboratory

Tuesday Seminar

Biogeochemistry of trace elements in the seawater

Abstract

Oceanic processes (physical, chemical and biological) set major controls on transport and transformation of mass and energy through different spheres of the Earth. Various trace elements present in the ocean waters are the integral part of these processes and are very sensitive to the processes involving their exchange and transport in the ocean. Many trace elements (e.g. Fe, Zn, Mn, Cu, Cd, Ni, Co) are nutrients to the marine primary producers. Consequently, these trace nutrients limit, in large parts of global ocean, the process of carbon and nitrogen fixation into organic matter, which directly regulates the atmospheric CO2 budget and hence the global climate. Trace elements (e.g. Mo, Cr, Pb, Ag) are also excellent tracers of Eh-pH conditions of the ocean waters and anthropogenic inputs to the oceans. A comprehensive study of biogeochemical cycling of these trace constituents is also therefore needed to understand marine ecosystem dynamics and the impact of human activities on it.

In this presentation, I will discuss about biogeochemistry of some of the important trace elements involved in the oceanic processes with focus on bio-essential trace metal. Also, recent progress towards the understanding of biogeochemical cycling of some of these trace elements in the Indian Ocean and my near future research plans will be discussed.

Speaker: **Namandeep Singh**
JRF, GSDN.

Date	Time	Venue
22-Nov-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