Ceramah Teknik (Technical Talk)

SULFUR CYCLE THROUGH NEOPROTEROZOIC AND CAMBRIAN: STUDIES ON SULPHUR AND OXYGEN ISOTOPIC STUDIES OF CHEMOGENIC SEDIMENTS FROM INDIA

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Geology Department
Universiti Malaya

(In collaboration with the Dept. of Geology, Universiti Malaya)

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Report

Although it was an unexpected half-day pre-Hari Raya Korban holiday at the University of Malaya, a small group of interested GSM members, mostly from the University of Malaya, attended the very interesting talk by Dr. Anida Mazumdar. Dr. Anida purposely flew in from Singapore where he was stopping over while enroute back to Delhi after completing his two years of post-doctoral research as a Humbolt Fellow at the Geologisch-Palaontologisches Institute, Westfallische-Wilhems Universitat at Munster, Germany.

The talk was held at 5.30pm at the Geology Lecture Hall of the university on 20th January 2005. There was an interesting time of discussion following the talk as it is a rare opportunity to pick the brains of someone specialising in isotopic studies of chemogenic sediments.

Lee Chai Peng

Abstract

Extensive studies on sulfur isotopic compositions of evaporites through Proterozoic and Phanerozoic have paved the way to understand the marine biogeochemical cycle and fluctuations in the sizes of various sulfur reservoirs through time, which in turn is intimately connected to atmospheric oxygenation, plate tectonics and other natural processes of interest. Attempts have also been made to model the mutual relationship between carbon and sulfur reservoirs through time. However, many unsolved and fundumental problems remain to be answered. In the present talk we will dwell in to the world of sulfur isotope systematics and get a glimpse of the problems and prospects ahead. I will present my research on sulfur and oxygen isotopic compositions of trace sulfate in phosphorites and associated reduced sulfide phases. I will make a comparison of the results with our studies on evaporites and evaporatic carbonates from India spanning this time window.