

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN INDIA

June 1st, 2015 to April 30th, 2016

GEOTRACES Activity is continuing in India with new sampling in the Indian Ocean and measurement of trace elements and isotopes. Funding for GEOTRACES programme in India is continuing through the Ministry of Earth Sciences, Government of India. We are about to get two in situ pumps for sampling particulates. Our clean sampling system is working alright.

Sampling in the western Arabian Sea

As part of GEOTRACES Programme, a clean sampling enabled cruise was conducted in the western Arabian Sea (SK – 324, yellow dashed line) during September – November 2015. This region was difficult to sample due to piracy problem, however, we sample during this cruise. Samples for all the key trace elements were collected including Pa-Th. Dissolved Fe was measured onboard.

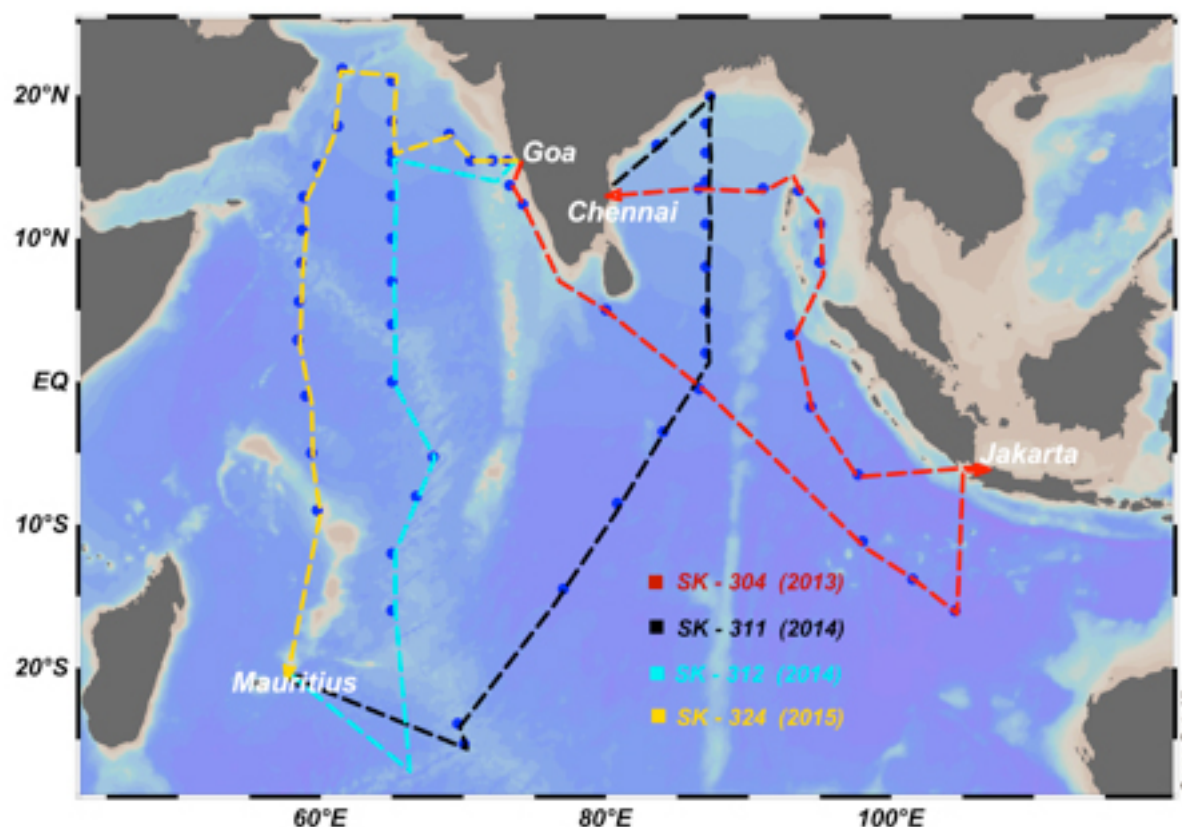


Figure. Various sections sampled for SOTRACES studies in the Indian Ocean. Western Arabian Sea (SK – 324) was sampled during September - November 2015.

REEs measurement in Indian Ocean

We have measured several profiles of dissolved REEs in the Arabian Sea and the Indian Ocean. More measurements are underway. Impact of oxygen minimum zone (OMZ) is visible on distribution of some of the REEs in the Arabian Sea.

REEs in the Estuaries

A systematic study of REEs distribution has been carried out in the eastern Indian estuaries. Results indicate massive release of REEs from the particulates in these estuaries. These could contribute significantly to the REEs budgets.

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