Distribution of trace metals in tropical surface sediment during pre-monsoon and post-monsoon

ABSTRACT

Surface sediment samples were collected in the Gulf of Thailand and South China Sea during pre-monsoon and post-monsoon periods. Eighty-one stations were sampled for trace metal analyses i. e., lead (Pb), iron (Fe), chromium (Cr) and manganese (Mn). Results during the pre-monsoon shows that, metals concentration ranges between 7.02-27.8 ɛgg-l, 0.71-2.82%, 20.5-122 ɛgg-1 and 209-720 ɛgg-1 for Pb, Fe, Cr and Mn respectively. During the post-monsoon cruise, however, the metal concentration ranges between 5.24-91 ɛgg-l, 0.70-2.38 %, 21.1-101 ɛgg-1 and 117-797 ɛgg-1 for Pb, Fe, Cr and Mn respectively. In general, the concentrations of Fe, Cr and Mn were higher in the pre-monsoon period except for Pb. This is related to the influence of the monsoon season on sediment.

Keyword: Pre-monsoon; Post-monsoon; Trace metals; Sediment