

Vertical Distribution of Heavy Metals and Enrichment in Core Marine Sediments of East Malaysia by INAA and ICP-MS

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Abstract : Fifty-five core marine sediments from three locations at South China Sea and one location each at Sulu Sea and Sulawesi Sea of coastal East Malaysia was analyzed for heavy metals using Instrumental Neutron Activation Analysis and Inductively Coupled Plasma Mass Spectroscopy. The enrichment factor of As, Cd, Cr, Cu, Ni, Pb, and Zn varied from 0.42 to 4.26, 0.50 to 2.34, 0.31 to 0.82, 0.20 to 0.61, 0.91 to 1.92, 0.23 to 1.52, and 0.90 to 1.28 respectively, with the modified degree of contamination values below 0.6. Comparative data show that coastal East Malaysia is of low levels of contamination.

Keywords : coastal East Malaysia, core marine sediments, enrichment factor, heavy metals, INAA and ICP method, modified degree of contamination

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