

**TRACE ELEMENT CONCENTRATIONS IN THE SEDIMENTS OF THE
WESTERN CONTINENTAL MARGIN OF SRI LANKA**

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The National Aquatic Resources Agency, Sri Lanka's premier oceanographic institution began a systematic study of the continental margin of the island in 1985. As a result of this study valuable information on the bottom sediments, their textural and mineralogical characteristics and chemical parameters of their compositions have been obtained. This paper presents data on the concentrations of 44 shipek grab samples collected during cruises of the NARA research vessel "Samudra Maru" along the western continental margin of Sri Lanka.

The concentration of trace elements in the < 0.63 micron fraction of surficial sediments of the western continental shelf and slope are compared with average trace element contents of shales and probable source rocks from inland areas adjacent to the sampling locations. When compared to the average element concentrations of shales, the bottom sediments are enriched in Sr, Sn, Pb and Zn. Sr and Cr are enriched relative to the average trace element contents of the Highland Group rocks and Mg, Pb and Cr are enriched relative to the average composition of the Vijayan Complex rocks.

Results indicating the ratios of metal/organic matter vs. organic matter for Pb, Sn, V, Mn, Co, Ni and ratios of metal/carbonate content vs. carbonate content for Pb and Sn content show significant correlations for most sediments. This indicates that carbonate and organic matter have played a major role in the geochemistry of trace elements in the continental margin sediments of Sri Lanka.