



蔡清海, 杜琦, 钱小明, 蔡建堤. 福建三沙湾海洋沉积物中重金属和过渡元素来源分析[J]. 地质学报, 2007, 81(10): 1444-1448

福建三沙湾海洋沉积物中重金属和过渡元素来源分析 [点此下载全文](#)

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基金项目: 福建省海洋与渔业局重点成果项目(编号200003)资助成果

DOI:

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摘要:

依据2004年的调查资料, 分析了三沙湾海洋沉积物的重金属和过渡元素的含量, 对过渡元素的分布特征、过渡元素与重金属的相关性进行了系统研究, 并探讨了其环境和物源意义。结果表明: 沉积物中的Cd、Cu、Hg、Pb与Fe₂₀₃有很好的相关性。三沙湾周边的山脉富含金属矿石, 这种矿石含有Fe₂₀₃、Ni和Mn等多种元素, 矿石经过暴雨冲刷和江河径流将多种元素带入海洋沉积物中, 使得Cu和Zn都有较高含量, 高于中国浅海沉积物含量, 高于福建省土壤背景值, 说明这种现象主要是天然来源占多数, 人为输入占少量。

关键词: [表层沉积物](#) [三沙湾](#) [过渡元素](#) [物质来源](#) [地球化学](#)

Analysis on Source of Heavy Metals and Transitional Element in Marine Sediment in the Sansha Bay of Fujian [Download Fulltext](#)

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Abstract:

Based on the investigation of 2004, the paper analyzed the contents of heavy metals and transitional elements in marine sediment in the Sansha Bay. The distribution characters of transitional elements, and correlation between transitional elements and heavy metals were systematically studied, and significance of the environment and material source was also discussed. The results showed good correlation between Cr, Cu, Hg, Pb and Fe₂₀₃ in marine sediment. Mountain ranges around the Sansha Bay contain metal ore which is enriched in a variety of elements, such as Fe₂₀₃, Ni and Mn. Metal ore was eroded by rainstorm and a great volume of elements was carried into marine sediment by river runoff, resulting in higher contents of Cu and Zn, which are higher than those of the sediments of shallow sea of China and background values of soil in Fujian province. These features indicate that the heavy metals are largely from natural source, with minor from contamination.

Keywords: [surface sediment](#) [Sansha Bay](#) [transitional elements](#) [matter source](#) [geochemistry](#)

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