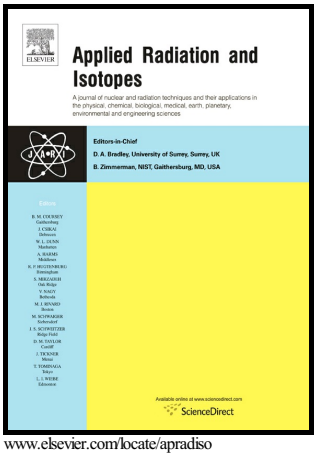


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# Radioactivity and metal concentrations in marine sediments associated with mining activities in Ierissos Gulf, North Aegean Sea, Greece

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**Abstract**

Marine sediment samples were collected from Ierissos Gulf, N Aegean Sea, close to the coastal mining facilities. Measurements of radionuclide and metal concentrations, mineral composition and grain size distribution were performed. The concentrations of $^{226}$Ra, $^{235}$U and trace metals showed enhanced values in the port of Stratoni compared with those obtained near to Ierissos port. The dose rates received by marine biota were also calculated by the ERICA Assessment Tool and the results indicated no significant radiological risk.

**Keywords:**

Ierissos Gulf; N. Aegean Sea; radionuclides; metal concentrations; marine sediment; mining activities; arsenic; dose rates; ERICA Assessment Tool

## 1. Introduction