

[Keynote Talk]: Heavy Metals in Marine Sediments of Gulf of Izmir

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Abstract : In this study, sediment samples were collected from four sampling sites located on the shores of the Gulf of İzmir. In the samples, Cd, Co, Cr, Cu, Mn, Ni, Pb and Zn concentrations were determined using inductively coupled, plasma-optical emission spectrometry (ICP-OES). The average heavy metal concentrations were: Cd < LOD (limit of detection); Co $14.145 \pm 0.13 \mu\text{g g}^{-1}$; Cr $112.868 \pm 0.89 \mu\text{g g}^{-1}$; Cu $34.045 \pm 0.53 \mu\text{g g}^{-1}$; Mn $481.43 \pm 7.65 \mu\text{g g}^{-1}$; Ni $76.538 \pm 3.81 \mu\text{g g}^{-1}$; Pb $11.059 \pm 0.53 \mu\text{g g}^{-1}$ and Zn $140.133 \pm 1.37 \mu\text{g g}^{-1}$, respectively. The results were compared with the average abundances of these elements in the Earth's crust. The measured heavy metal concentrations can serve as reference values for further studies carried out on the shores of the Aegean Sea.

Keywords : heavy metal, Aegean Sea, ICP-OES, sediment

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