

Cadmium, copper, nickel and lead occurrence in the biotope of Tasaul Lake

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Abstract The paper presents new results concerning the concentration of cadmium, copper, nickel and lead in eight water and sediment samples collected around Tasaul lake in 2005.

Analytical determinations have been done by graphite furnace atomic absorption spectrometric method (GFAAS), using an ATI-UNICAM 939Z with Zeeman background correction.

The obtained results ranged as follows: in water cadmium 0.02 – 1.28 µg/L, copper 3.07 – 48.32 µg/L, nickel 0.43 – 24.08 µg/L, lead 0.05 – 4.52 µg/L and in sediments cadmium 0.59 – 3.38 µg/g d.w., copper 18.61 – 57.39 µg/g d.w., nickel 10.69 – 92.08 µg/g d.w., lead 26.90 – 125.87 µg/g d.w. Studied metals showed a tendency to accumulate in the surface sediments from the southern part of the Tasaul Lake.

Keywords: Cd, Cu, Ni, Pb, GFAAS, water, sediments
