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## THE GEOACCUMULATION INDEX AND THE DEGREE OF HEAVY METALS POLLUTION OF BOTTOM SEDIMENTS IN THE REPUBLIC OF MOLDOVA

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**Abstract.** This article presents the assessment of heavy metals geoaccumulation index in sediments of some rivers and lakes from the Republic of Moldova as an ecological perspective, using the concept of geochemical background. The content of heavy metals in bottom sediments of Prut and Dniester rivers as well as their tributaries is different, but the value of  $I_{geo}$  related to the concentration of Zn, Cu, Pb, Cd, Cr and Ni depicts the status of sediments as unpolluted - moderately polluted with the exception of sediments of pond for pluvial water accumulation on the territory of former chemical warehouse (Varatic village, Rascani district), where the content of Cu is high (371 mg/kg). The sediments of Beleu and Manta natural lakes, those of Taraclia, Comrat and Cahul artificial lakes and lakes from Chisinau are not polluted with heavy metals (class 0,  $I_{geo}<0$ ). However, the sediments of water bodies in some protected natural areas are highly polluted with Pb (the spring in Izvoare village, Orhei district: class 4;  $I_{geo}=3.1-3.3$ ) and moderately - high polluted with Cd (rivulets of Unguri-Holosnita wetland, class 2-3;  $I_{geo}=2.2$ ).

**Key words:** geoaccumulation index, geochemical background, heavy metals, pollution degree, sediments quality.