Abundance of heavy metals in urban soils as concerns genesis and polluting impact

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Data referring to the abundance, contamination or pollution level and content of heavy metals in labile and stable fractions of urban soils in two important municipalities of Romania – Bucharest, the country's capital and Baia Mare the most important center of extracting and processing the polymetallic sulphides are presented. Urban soils in both cities were grouped in three categories, namely, park soils, soils in areas along the streets and soils in vegetable and fruit gardens. Six heavy metals were analyzed: Cd, Cr, Cu, Ni, Pb and Zn. Urban soils in the Bucharest parks are not polluted with heavy metals. They present only a contamination degree, while the soils in the Baia Mare parks have a an average content 11 times higher than those in Bucharest, being strongly polluted with Cd, Cu and Pb. Urban soils located along the streets in Bucharest present slight (Cu, Pb, Zn) and moderate (Cd) pollution, while those located along the streets in Baia Mare are characterized by very strong (Pb), strong (Cd, Cu) and moderate (Zn) pollution. Soils along the streets in Baia Mare are almost five times more polluted than those in Bucharest. Urban soils in vegetable and fruit gardens in Bucharest are characterized by strong (Cd), moderate (Zn) and slight (Cu), while the similar soils in Baia Mare present strong (Cd, Cu, Zn) and very strong (Pb) pollution. Pollution with heavy metals of urban soils in the vegetable and fruit gardens in Baia Mare is over four times more intensive than that in soils with similar use in Bucharest.