

**TORIJ (Th) U TLU URBANOG DIJELA TUZLE****Stjepić Srkalović Željka<sup>1</sup>, Babajić Elvir<sup>2</sup>, Srkalović Dado<sup>2</sup>, Gutić Senad<sup>1</sup>, Ahmetbegović Semir<sup>1</sup>, Lepirica Alen<sup>1</sup>**Univerzitet u Tuzli, Prirodno-matematički fakultet, Odsjek za geografiju<sup>1</sup>, Rudarsko-geološko-  
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*Geohemijsko-pedogeografskim istraživanjima tla, područja urbanog dijela grada Tuzle, visokosofisticiranom instrumentalnom metodom (ICP-MS), utvrđene su koncentracije radioaktivnog elementa torija (Th) u 129 uzoraka. Uzorkovanje je izvršeno na površini od oko 100 km<sup>2</sup>, po pravilnoj mreži 1x1 km, a prema uputama URGE-a. Koncentracije torija (Th) su širokog raspona (4,1 – 15,6 ppm), sa medijanom od 8,9 ppm. Razmatranje koncentracija torija (Th) je izvršeno u odnosu na vrijednost medijane, jer još uvijek ne postoji Pravilnik o graničnim vrijednostima radioaktivnih elemenata u tlima. Povišene koncentracije su uglavnom vezane za zapadni, jugozapadni, južni te jugoistočni dio istraživanog područja. Matične stijene (lignit i kvarcni pješčari) se mogu genetski korelirati sa povišenim koncentracijama torija i mogu biti jedan od izvora kontaminacije tla. Drugi mogući izvor kontaminacije tla je TE "Tuzla", u kojoj se spaljuju fosilna goriva, a šljaka i pepeo se odlažu na lokalitete u njenoj neposrednoj blizini. Ne treba zanemariti ni veliki broj individualnih kućnih ložišta koja, također, koriste fosilna goriva (lignit i mrki ugalj) te na taj način doprinose onečišćenju tla.*

***Ključne riječi:*** torij (Th), tlo, povišene koncentracije, okoliš, Tuzla.**THORIUM (Th) CONCENTRATIONS IN SOIL OF TUZLA'S URBAN AREA****Stjepić Srkalović Željka<sup>1</sup>, Babajić Elvir<sup>2</sup>, Srkalović Dado<sup>2</sup>, Gutić Senad<sup>1</sup>, Ahmetbegović Semir<sup>1</sup>, Lepirica Alen<sup>1</sup>**University of Tuzla, Faculty of Sciences and Mathematics, Department of Geography<sup>1</sup>, Faculty of  
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*The concentrations of the thorium (Th) radioactive element, was determined in 129 samples by a high-sophisticated instrumental method (ICP-MS). The geochemical - pedogeographic soil researches (soil sampling) were made in the urban area of Tuzla (on the area of about 100 km<sup>2</sup>), in the proper network of 1x1 km, and according to URGE instructions. The thorium concentrations (Th) are in the range from 4.1 to 15.6 ppm, with a median of 8.9 ppm. The concentrations had been compared to the value of the median, because there is still no ordinance of the limited values for radioactive elements in soils. The increased concentrations are mainly related to the western, southwestern, southern and southeastern parts of the researched area. The geological settings (lignite, quartz sands and sandstones) can be genetically correlated with increased thorium concentrations and may be one of the sources of the soil contamination. Another potential source of soil contamination is the thermal power plant "Tuzla", that burns coal, where the ash and slag are deposited in its immediate vicinity. Also, the large number of individual home furnaces, which are using fossil fuels (lignite and brown coal) and are contributing to the soil contamination shouldn't be ignored.*

***Key words:*** radioactive element (Th), soil, increased concentrations, environment, Tuzla.