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## **Uranium Ores as a Source of Potential Risk Related to Illicit Trafficking of Radioactive Materials**

The IAEA statistical database on illicit trafficking of radioactive materials for the period from 1999 to 2013 was considered and generalized. The IAEA database UDEPO on the world uranium resources was analyzed as well. Ukrainian uranium ores were investigated to define potential risk related to illicit trafficking and possibility to be included into the UDEPO.

Mineral, chemical and radioactive composition of uranium ores, as well as their geological peculiarities and specific location features, can be used as identification signs for the purpose of nuclear forensics. Among the Ukrainian operating deposits, the ores from the Vatutinske deposit are characterized by the highest content of Ra, Th, Pb, Po and U, while the ores from the Central deposit have the lowest content of mentioned elements. This difference may serve as an example of the important identification (characteristic) signs.

*Keywords: uranium deposits; nuclear forensics; uranium reserves; database; identification signs.*