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A CLEAN PROCEDURE ON THE CHEMICAL LEACHING OF URANIUM ORES IN THE PRESENCE OF OXIDIZING AGENTS

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Abstract

The purpose of this paper was to study the oxidation of uranium species coming from some Romanian uranium ores at U(VI), in the presence of the following oxidizing agents: $\text{KMnO}_4/\text{H}_2\text{SO}_4$, H_2O_2 and $\text{HCl}+\text{HNO}_3$. There was ascertained that the highest capacity of leaching is shown by $\text{KMnO}_4/\text{H}_2\text{SO}_4$ that achieved values of almost 100% after about 7 days. This fact was explained through the chemical and mineralogical composition of the studied ores.

Keywords: cleaner production, chemical leaching, nuclear technology, uranium ores

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