

## **Purification of magnesite from harmful materials with $Mg(NO_3)_2$ application-prevention of the pollution of environment**

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*Received January 19, 2008;*

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**Abstract:** In this article it is researched the issue of possibility of magnesite valorisation with application of thermodynamic and kinetic methods in dissolution process for purification of magnesite from calcium with help of magnesite nitrate influencing in this way evidently in preventing of the pollution of environment (earth and water). For this reason it is realised a wide spectrum of experimental granulometric researches, chemical, diffractometric (XRD) and termodifferentiate analyses (DTA) in magnesite of “Strezoci” – Kosova. Massive magnesite is selected for detailed analyses that have a high content of calcium minerals, while it has few other impurity contents. With experimental researches is verified that the dissolubility reaction of calcium oxide is a very complex process and it is dependant from temperature, granule size in solid phase, reagents concentration and rapport of phases. Depending on the condition for the development of experiments, dissolubility of calcium oxide in process was: after 5 min. 65-83% solubility, while after 1h 88-95% solubility. The up to now method of magnesite treatment (without treatment of its sub products) influenced evidently in the pollution of environment, while the method we used in this article offers a possibility of prevention of the pollution of environment with treatment of other sub products with help of magnesite nitrate.

**Keywords:** magnesite deposits, calcium oxide, solubility, purification, pollution, magnesite treatment.

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