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## **THE NATURAL RISK POTENTIAL – NATURAL STABILITY OF THE GROUND. CASE STUDY: GALATA PERIMETER – IASI CITY**

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### **Abstract**

A model based on thermodynamic, kinetics and geo-mechanical estimates, particularized for geological – geochemical systems with low spatial extension was used for the evaluation and the prognosis of natural risk potential in Galata perimeter (Iasi City), in which the lithological component is dominant. The application of some estimates was carried out in agreement with the geo-morphological, geological and geochemical characteristics of the studied zone. The consideration of the geochemical processes role and the interactive coexistence between geological-geochemical systems in the evolution of natural risk phenomena were found to be very important during model application. The physical-chemical processes caused an acceleration of risk phenomena in the evolution mechanisms of geological-geochemical processes, the activation of some latent risk phenomena, or the initiation of new numerous and rapidly evolving phenomena. The estimation of the destructions level and the interpretation of results based on the integral index, indicated a value of 49÷72 % operation in environment level for the geologic-geochemical micro-system from studied zone, which corresponds to a high level of genetic destructions in environment, with a rapid increase rate and a low environment adaptation probability.

*Keywords:* natural risk, risk potential, geological-geochemical system, interactive relationships

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