

# **The Formation of Ores As Self-Organizational Process of Redistribution of Metals**

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The basis of the concept of the formation of ores is the submission about everywhere and continuous - irregular redistribution of material in the Earth crust.

The evidence of these are the abundance of ore deposits (more than one million), their accommodation in the surrounding enriched with the conformable metals, existence around the deposits of the zones of lower concentrations, which are interpreted as the zones of offset of ore elements. The capability of extraction from rocks of a considerable part of metals practically without changing of the rocks themselves is established experimentally. In the same experiments the inverse dependence between the degree of elements' extraction and their absolute concentration is exposed.

The redistribution of material in the Earth crust is the result of hierarchic structuring of fields of metals' concentration with formation of sites of heigher and lower concentrations. Thus there are often arranged regularly disposed polar systems, cells, rhythms indicative of manifestation of self-organizing processes. There are considered the structuring and formation of ores in different scales on the examples of Kazakhstan and Australia.

It is supposed, that the mechanism of redistribution of elements is based on electrochemical processes in heterogenous system: water - rock. Depending on value of electric potential and its stability in time, temperature, quantity of fluid phase and permeability of rocks speed of redistribution and the capability of formation of ore objects can essentially vary. There are considered the conditions resulting in the formation of polar oreforming systems and large ore deposits.