

## **New Methods of Geochemical Mapping by Mobile Forms of Chemical Elements**

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Existing methods of geochemical mapping are founded on measurements of concentration of chemical element within surface deposits (soils, rocks) with the help of various analytical methods. The establishment of general concentrations of chemical elements in geological objects with high antropogenous loading allows only to allocate its abnormal values but does not determine the sources of its supply and behaviour within geosystems.

To solve these and other applied tasks geochemical mapping by mobile forms of chemical elements has been put forward. Determination of regularities of distribution of various forms of chemical elements their migration, differentiation and concentration allows to find out the nature of their abnormal concentration as well as the trends of physic-chemical process within natural system. It has been established that abnormal concentrations of such forms are connected with both natural and technogenic sources. They may be connected with zones of tectonic faults, zones of unloading of deep underground waters, sites of rocks of different types and the areas of technogenic pollution.

Such geochemical maps have multi-purpose applied importance. They may become a basis for local forecasting and search of mineral deposits as well as for decision of ecological tasks. These maps allow to supervise and to predict change of geological environment and ecosystems as a whole during various technogenic processes.