

GEOLOGICAL PREDICTION: METHODOLOGY AND TECHNOLOGY OF ARTIFICIAL INTELLIGENCE.

Scheme for solving major problems of methodology and technology of artificial intelligence as a human - machine means for making a geological prediction of mineral resources have been developed.

The basis of the approach is to adequately reflect paradigm of ideal, material and actual patterns of developing a system of any origin information processes.

The problems of methodology, i.e. those of system representation of knowledge and the actual word data are settled by constructing a system of structural, functional and structuralfunctional models of the processes of thinking, consciousness and cognition.

The mechanism of geological prediction of expected mineral resources, the depth of deposition and phase composition of resources accumulation has been tested using artificial intelligence on a number of productive territories of Russia.