

FACIES OF VOLCANIC ROCKS AS A BASIS FOR RECONSTRUCTION OF VOLCANIC EDIFICIES.

KOSTINA R. I., SCHARFMAN V.S. and SOBOLEV R.N. Lomonosov Moscow State University, Moscow, Russia.

The facial analysis (distinguishing rocks of different genetic types) is the basis for modern and ancient volcanic processes study. The facial analysis approach let to do reconstruction of volcanic edificies that is especially important for ancient volcanic activity. It is possible, using this approach, to establish location of the volcanic activity centers as well as to reconstruct ancient volcanic edificies with which are related ore deposits, for example, such as volcanic massif sulfide deposits (mobol belts Ural, Altay and others).

It is necessary to use multilevel approach by distinguishing facies of volcanic rocks: 1. The basis level - five genotypes - effusive, subvolcanic, extrusive, vents, explosive; 2. The next level - families of facies, for instance, family of pyroclastic facies. The latter have different granulometrical composition of the clastic material in zones locating on different distance from the volcano centre.

Such approach let to reconstruct the history of magmatic and metallogenic processes in the region and to predict possible location of deposits.