

Geochemical peculiarities of the ores in the Katsdag pyritaceous polymetallic field (the south slope of the Greater Caucasus)

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The main commercial valuable metals of ores - zinc, lead and copper are not equally spread in the field. Tendency of the decrease of zinc and lead concentration and increase of the amount of copper with the growth of depth is recorded. A wide range of elements-admixtures was determined in the ores. among then silver and cadmium are worth to be extracted during the complex processing of ores. Prevailing concentrations of cadmium, bismuth and mercury were registered in the upper and the middle horizons of the field and indium and tin in the lower horizons of the field.

Significant positive correlation between concentrations of zinc, lead, silver, cadmium and bismuth was determined. Copper concentrations are characterized by a significant positive correlation with cobalt and tin amounts. Three associations of chemical elements were determined in the ores by cluster analysis. Zonation of the mineralization was determined as well. Mineralogical-geochemical criteria that might promote a right assessment of the natural resources in the field and also prognostication and effective exploration of the buried mineralization were development.