

APPLICATION OF TRACE ELEMENTS IN MINERALS FOR EXPLORATION HYDROTHERMAL GOLD DEPOSITS)

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The trace (admixture) elements distribution in the ore minerals are used for the determination of mineral types of endogenic gold deposits. 1) The concentration and relative quantitative distribution of the element in pyrite, arsenopyrite, sphalerite and galenite in 17 type of gold deposits were investigated. The calculation of multiplicative and multimineral coefficients is proposed as an effective way for the recognizing of mineral - geochemical type using geochemical criteria. 2) The trace elements distribution in pyrite, arsenopyrite, sphalerite and galena of different mineral types of gold deposits were investigated using the Bayes method of calculations of a posteriori probability of mineral type identification on the basis of the models of a priori probabilities (distribution histograms).