Application of Factor analysis on Prospecting for Concealed lead-zinc Deposit based on the Geo-electrochemical Method in Zhijin area, Guizhou

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The factor analysis is the best means and method to study element associations. Major elements in one factor are not only present a kind of association relationship, but also reflect a kind of intrinsic genetic relationship. Spatial distribution of factor score can be used to predict the existence of ores. The paper adopted R-type factor analysis method to study element association relationships by using 14 kinds of ore-forming elements and associated elements analysis data, which are collected from two main ore-forming veins in Zhijin lead-zinc area, Guizhou. Indicating meaning of each factor is analyzed and described by score of each factor. Based on spatial distribution of factor score and elements exception of geo-electrochemistry, blind ore bodies in the deep of the deposit are predicted, and advantageous ore-prospecting target area is delineated.