

斑岩型Cu(Mo)矿床中微量元素富集贫化规律研究

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中文摘要:依据江西城门山、内蒙古乌奴格吐山、甘肃白山堂三个斑岩型Cu(Mo)矿床试验资料,探讨了斑岩型Cu-Mo矿床中微量元素的富集贫化规律。在斑岩型Cu(Mo)矿床中,除有矿元素及其伴生元素的富集以外,还存在着部分亲石分散元素、稀有元素等的贫化。发生贫化的微量元素因矿床而异,既有共性又有特殊性。Sr等微量元素在斑岩型Cu(Mo)矿床中富集并且有随Cu矿化增强贫化程度增强的规律,可以作为判断与斑岩体有关的地球化学异常的成矿前景。此项研究成果为实现地球化学勘查指标的定量化提供了基础。

中文关键词:斑岩型CuMo矿床 微量元素 富集贫化

A Study of the Enrichment and Depletion Regularity of Trace Elements in Porphyry Cu (Mo) Deposits

Abstract:According to the test data obtained from three porphyry Cu(Mo) deposits lying respectively in Chengmenshan of Jiangxi, Wunugetushan of Inner Mongolia and Baishantang of Gansu, the authors studied the enrichment and depletion regularity of trace elements in porphyry Cu(Mo) deposits. It is found that there exists not only the enrichment of some metallogenic elements but also the depletion of some lithophile-dispersed elements and rare elements in porphyry Cu(Mo) deposits, and that the characteristics of the depleted trace elements change from one deposit to another, showing their different particularities in porphyry Cu(Mo) deposits. These elements, however, also show some general characteristics. In porphyry Cu(Mo) deposits, some trace elements, such as Sr, are obviously depleted and their depletion degree gradually increases along with the intensification of Cu mineralization, which can serve as a discrimination criterion for the mineralization perspective of geochemical anomalies related to porphyries. The results of this study can provide the basis for realizing the indicator quantification in geochemical exploration.