地质学报
ACTA GEOLOGICA SINICA

应立娟,王登红,唐菊兴,畅哲生,屈文俊.西藏墨竹工卡县甲玛铜多金属矿不同矿石中辉钼矿Re-Os同位素定年及其
(8):1165-1174

西藏墨竹工卡县甲玛铜多金属矿不同矿石中辉钼矿Re-Os同位素定年及其成矿意义

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基金项目：所长基金项目“西藏甲玛铜多金属矿斑铜矿等铜矿物学研究(K0911)”

DOI：

摘要：

西藏墨竹工卡县甲玛铜多金属矿中，辉钼矿普遍发育，产于各类矿石中，尤其在矽卡岩型和角岩型矿石中
少量产于大理岩和结晶灰岩型矿石中。本文采集了甲玛铜多金属矿矽卡岩、角岩和斑岩中不同产状、不同形态的
年，获得了27件样品的模式年龄为14.2~17.5 Ma，等时线年龄为15.22±0.59 Ma。其中，斑岩型辉钼矿等时线年
钼矿等时线年龄为14.67±0.19 Ma，结果一致。辉钼矿中187Re含量变化于38.75~387.4 m g/g，其中，角岩中辉
m g/g，矽卡岩中为123.7~304.7 m g/g，含量较高，而斑岩中辉钼矿的187Re含量相对较低，38.75~130.5 m g/g
s含量变化情况基本与187Re相同。甲玛辉钼矿187Re值与冈底斯其他矿体的值对比，显示冈底斯成矿带斑岩－矽
高187Re值的特点。本文研究成果表明，甲玛大型铜多金属矿床形成于中新世Langhian期，辉钼矿为主成矿期的
态，以及其与黄铜矿等的共生组合关系，辉钼矿的成矿时代可代表矿区内主要矿石矿物的成矿时代，且与冈底斯
矿的成矿时代一致，成矿集中在20~10 Ma之间，形成于印度大陆与亚洲大陆碰撞之后，从而否定了前人海底喷流
外围进一步的找矿指明了方向。

关键词：辉钼矿 矽卡岩型－角岩型－斑岩型矿石 Re-Os同位素定年 成矿时代 甲玛铜多金属矿 西藏

Re-Os dating of molybdenite occurring in different rocks from the Jiama copper depos metallogenic significance

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Fund Project:

Abstract:

Molybdenite widely spreads in the different types of ores from the Jiama copper polymetalli
host rock, then hornfel is the secondary, and porphyry, marble and limestone contain few molybden
different occurrences from skarn, hornfel and porphyry were collected and tested by Re-Os isotopi
samples changed between 14.2 and 17.5 Ma and the isochron age was 15.22±0.59 Ma. The isochron ag
were 14.78±0.33 Ma and 14.67±0.19 Ma, which were consistent to metallogenic period of other por
Gangdese metallogenic belt. The 187Re content in molybdenite was correspondingly higher in the ra
Molybdenite in the Jiama ore deposit was supposed to form in one period occurring in the differen
Langhian Stage of Miocene with the feature of postcollision. The metallogenic period of the Jiama
that of molybdenite, therefore the previous overview of effusive sedimentary metallogeny was not

Keywords:molybdenite skarn-hornfel-porphyry type ore Re-Os isotopic dating metallogenic peric
deposit Tibet