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# 滇西北红山铜矿床成矿流体地球化学特征及矿床成因


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摘要：

红山铜矿床为滇西北地区一大型斑岩-矽卡岩型铜多金属矿床,它产于印支期石英闪长玢岩及燕山期石英二长斑岩体内及其周边地层中,其形成经历了多期次热液叠加成矿作用过程。流体包裹体岩相学、显微测温及碳、氢、氧稳定同位素综合研究表明,矿区早期成矿流体为中高温、高盐度$NaCl-H_2O$体系热液,主要来源于印支晚期岛弧型岩浆活动,对区内矽卡岩型矿化形成起了重要作用;晚期成矿流体为中高温、高盐度$NaCl-CO_2-H_2O$体系热液,主要来源于隐伏的燕山期后造山伸展型花岗质岩浆侵入体,形成了区内斑岩型Cu、Mo及相关的Pb、Zn多金属矿化。因此,红山铜矿床是两期岩浆热液叠加成矿作用结果。

英文摘要：

The Hongshan copper deposit is a large porphyry-skarn type polymetallic deposit in northwestern Yunnan Provi e. It occurred in quartz diorite porphyry of Indo-Chinese Period and quartz monzonite porphyry of Yanshanian Perio as well as their neighbouring wall rocks. The formation of it experienced superimposition of mutiphases/stages hyd hermal mineralization. Comprehensive study on petrography, microthermometry and carbon-hydrogen-oxygen isoto e of fluid inclusions showed that the ore-forming fluids of early metallogenic stages are of medium to high temperat e,high salinity $NaCl-H_2O$ type solutions and mainly came from arc magmatism of Indo-Chinese Period, they were res onsible for the formation of skarn type mineralization. The ore-forming fluids of later metallogenic stages are of med m to high temperature,high salinity $NaCl-CO_2-H_2O$ type solutions and mainly came from the buried granitic magmati m of post orogenic extension environment, and they played important role in the formation of porphyry type Cu, Mo nd relevant Pb, Zn mineralization. So the Hongshan copper deposit is of superimposed poyphyry-skarn type deposi hat originated from the metallogenic superimposition of two phases of magmatic hydrothermal fluids.

关键词：成矿流体 地球化学特征 矿床成因 红山铜矿床 滇西北

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