

杨富全,张志欣,刘国仁,屈文俊,张立武,魏广智,刘锋,柴凤梅. 2012. 新疆准噶尔北缘玉勒肯哈腊苏斑岩铜矿床年代学研究. 岩石学报, 28(7): 2029-2042

新疆准噶尔北缘玉勒肯哈腊苏斑岩铜矿床年代学研究

作者	单位	E-mail
杨富全	中国地质科学院矿产资源研究所,国土资源部成矿作用与资源评价重点实验室,北京 100037	fuquanyang@163.com
张志欣	中国地质科学院矿产资源研究所,国土资源部成矿作用与资源评价重点实验室,北京 100037	
刘国仁	新疆地质矿产勘查开发局第四地质大队,阿勒泰 836500	
屈文俊	国家地质实验测试中心,北京 100037	
张立武	新疆地质矿产勘查开发局第四地质大队,阿勒泰 836500	
魏广智	新疆地质矿产勘查开发局第四地质大队,阿勒泰 836500	
刘锋	中国地质科学院矿产资源研究所,国土资源部成矿作用与资源评价重点实验室,北京 100037	
柴凤梅	新疆大学地质勘查与工程学院,乌鲁木齐 830046	

基金项目: 本文受国家自然科学基金项目(40972069)资助.

摘要:

玉勒肯哈腊苏铜矿是近几年准噶尔北缘卡拉先格尔斑岩铜矿带发现的又一个中型斑岩铜矿,其成岩成矿年代学的研究可以对矿床模型构建、区域成矿规律的总结提供制约。矿区侵入岩发育,矿化主要受闪长玢岩控制,少部分赋存在似斑状黑云母石英二长岩和北塔山组火山岩、火山碎屑岩中。本文利用锆石LA-ICP-MS U-Pb法和辉钼矿Re-Os法对矿区岩体和矿化进行了成岩成矿年代学研究。结合前人的研究,认为矿区存在5次主要岩浆侵入事件: 382Ma石英闪长岩侵入,379Ma形成含矿闪长玢岩,375~374Ma形成似斑状黑云母石英二长岩,348Ma形成黑云母石英斑岩脉,266Ma形成二长斑岩,前三次岩浆侵入活动对应构造环境为板块俯冲阶段,后二次岩浆侵入活动为后碰撞阶段。9件辉钼矿样品Re-Os同位素等时线年龄为 373.9 ± 2.2 Ma,表明铜钼成矿时代为中泥盆世晚期,与闪长玢岩侵入有关。

英文摘要:

Yulekenhalasu copper deposit is a medium-sized porphyry deposit found in recent years in Kalaxiang'er porphyry copper metallogenic belt in northern Junggar area. Study on its geochronology will help further set up metallogenic model and summarize regional ore-forming pattern. Mang intrusive rocks are exposed in the ore district. The Cu mineralized mainly occurs in the diorite porphyry with subordinate porphyroid biotite quartz monzonite and volcanic rocks and volcaniclastic rocks of Beitashan Formation. This paper studies geochronology of intrusive rocks and mineralization using zircon LA-ICP-MS U-Pb and molybdenite Re-Os method. Based on our and other people data, magma intrusion events in the Yulekenhalasu ore district can be divided into five stages: Quartz diorite invading at 382Ma, ore-bearing diorite porphyry forming at 379Ma, porphyroid biotite quartz monzonite forming at 375 to 374Ma, biotite quartz porphyry invading at 348Ma, and quartz monzonite porphyry forming at 266Ma. Three stages before are formed during the subduction of plate, and other stages corresponds to a period of postcollision during Late Paleozoic. Seven samples of molybdenite Re-Os isochron age is 373.9 ± 2.2 Ma, suggesting the Cu-Mo mineralization occurred in the Late Middle Devonian, and relating to the diorite porphyry.

关键词: [U-Pb和Re-Os法](#) [中泥盆世](#) [斑岩铜矿](#) [玉勒肯哈腊苏](#) [新疆](#)

投稿时间: 2011-11-11 最后修改时间: 2012-02-01

[HTML](#) [查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)

