

云南墨江金厂金矿床含铬层状硅酸盐矿物成分标型特征

The compositional types of chromium-bearing layered silicate minerals from the Jinchang gold deposit in Mojiang County, Yunnan Province

中文关键词: [云南 墨江 金厂金矿床 含铬层状硅酸盐矿物 成分标型](#)

英文关键词: [Yunnan Mojiang Jinchang gold deposit chromium-bearing layered silicate compositional type](#)

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[江永宏 李胜荣](#)

中国地质大学地球科学与资源学院岩石圈构造与深部过程及探测技术教育部重点实验室 北京100083 (江永宏)
, 中国地质大学地球科学与资源学院岩石圈构造与深部过程及探测技术教育部重点实验室 北京100083(李胜荣)

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中文摘要:

含铬绢云母类矿物在云南墨江金厂金矿床中广泛出现于黄铁铬绢英岩、黄铁硅质岩、黄铁铬云母岩和石英脉中。含铬绿泥石类矿物主要出现在石英脉、硅质岩、黄铁铬绢英岩中。蒙脱石出现于蚀变围岩中,而高岭石出现于富金石英脉中。本文通过对72个上述矿物电子探针数据的分析,确定了与其成因产状对应的含铬绢云母、含铬伊利石、含铬绿泥石、含铬蒙脱石、高岭石矿物的系列成分标型。研究表明,具最高铬含量的上述矿物样品均位于近金厂岩体穿脉的最北端。在铬铝云母SiO₂-Cr₂O₃关系图上可以看出,不同成矿背景的铬铝绢云母,其Cr、Si离子数有分区特点,而本矿床的铬铝云母成分标型反映其富硅富铬的特点,与金厂超基性岩体的变质热液有关。

英文摘要:

Chromium-bearing sericite and chlorite occur in the Jinchang gold deposit of Mojiang County, Yunnan Province. Sericite is distributed extensively in pyritic chrome-phyllic rocks, pyritic siliceous rocks, pyritic chrome-mica and quartz veins, whereas chlorite is spread in quartz veins, siliceous rocks and pyritic chrome-phyllic rocks. Montmorillonite occurs in etched surrounding rocks, while kaolinite in gold-rich quartz veins. Based on 72 electron microprobe analytical data of the above minerals, the authors set up a series of compositional types related to the rock types. Studies show that all of the above layered chromium-high silicate minerals occur at the northernmost ends of different orts within Jinchang rock body. The SiO₂-Cr₂O₃ diagram of the chromium-aluminum mica reveals that different plot areas reflect specific genetic type features of source rocks. It is thus considered that the high-content spots of Si and Cr in chromium sericite series typical of the Jinchang gold deposit are basically attributed to the post-metamorphism hydrothermal fluid of the ultrabasic rock body.

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