

刘彦,吕庆田,严加永,吴明安,祁光,邓震. 2012. 庐枞矿集区结构特征重磁研究及其成矿指示. 岩石学报, 28(10): 3125-3138

庐枞矿集区结构特征重磁研究及其成矿指示

作者	单位
刘彦	中国地质科学院矿产资源研究所, 国土资源部成矿作用和资源评价重点实验室, 北京 100037
吕庆田	中国地质科学院矿产资源研究所, 国土资源部成矿作用和资源评价重点实验室, 北京 100037
严加永	中国地质科学院矿产资源研究所, 国土资源部成矿作用和资源评价重点实验室, 北京 100037
吴明安	安徽省地质调查院, 合肥 230001
祁光	吉林大学地球探测科学与技术学院, 长春 130026
邓震	中国地质科学院矿产资源研究所, 国土资源部成矿作用和资源评价重点实验室, 北京 100037

基金项目: 本文受国家科技专项(SinoProbe-03); 国家自然科学基金重点基金项目(40930418); 中央级公益性科研院所基本科研业务费专项(K1008); 科技支撑计划项目(2009BAB43B02)和地质大调查项目(1212010813052)联合资助

摘要:

作为长江中下游多金属成矿带的重要组成部分,庐枞矿集区的深部结构和成矿作用过程一直受到关注和重视。本文利用已有的重磁数据,开展匹配滤波、解析延拓、求导等多种方法的目标处理,刻画庐枞矿集区的重磁异常特征,显现成矿带、成矿体、断裂构造、基底隆起和盆地凹陷等众多构造信息,再结合矿集区密度、磁性统计分析,以及区域地质和矿产分布,认为:庐枞矿集区整体走向为北东向,包括庐枞断裂、裴岗-朱桥断裂、罗河断裂以及长江断裂组成的四个成矿带,可划分为庐枞火山岩盆地、孔城凹陷、巢南-庐江褶皱隆起带、大别造山带东缘以及长江凹陷带五个部分;庐枞矿集区矿床类型多样化,矿床和矿化具有带状和环状分布特点,火山构造和火山岩浆活动制约着铁、硫、铜(金)矿床的分布,基底隆起和断裂对成矿具有重要的控制作用;矿集区异常分离后的剩余重力异常和剩余磁异常是寻找铁矿的重要综合信息标志,高背景场的低缓磁异常和重力异常的叠加地段,仍然具有较大的找矿潜力。

英文摘要:

As an important part of multi-metal concentration metallogenic belt in the Middle and Lower Yangtze River, the deep structure and mineralization process of Luzong ore district have been concerned. This paper carries out the objective process method with the existing gravity and magnetic data, such as matching filter, analytical continuation and derivation etc. Gravity and magnetic anomaly characteristics of Luzong ore district are further depicted, and much structure information is revealed, including metallogenic belts, orebodies, fractures, basement uplifts and basin sinks. Based on these data, combined regional geology and mineral distribution of Luzong ore district, we draw some conclusions. Luzong ore district includes four metallogenic belts, which composed by Tanlu fracture belt, Peigang-Zhuqiao fault, Luohe fault and the Yangtze River fracture, and its general trend extends southwest to northeast. Luzong ore district can also be divided into five parts, which are Luzong volcanic basin, Kongcheng sag, upwarping folded zone from south Chaohu to Lujiang, eastern margin of Dabie orogenic belt and the Yangtze River depression. As ore deposits diversification, deposits and mineralization show belt and circular characteristics distribution. Volcanic tectonic and volcanic magma activity restricts the distribution of iron, sulfur, and copper (gold) ore bodies, and basement uplift and fracture of Luzong ore district play an important controlling role. The residual gravity and magnetic anomalies after anomaly separation are the important comprehensive information signs to look for rest of iron ore. The superposition area of gravity anomaly and low-pitched magnetic anomaly in high background still has large prospecting potential.

关键词: [庐枞矿集区](#) [结构特征](#) [目标处理](#) [区域架构](#) [成矿带](#)

投稿时间: 2012-06-24 最后修改时间: 2012-08-28

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

本系统由北京勤云科技发展有限公司设计

