

## 豫西小秦岭—熊耳山地区金矿成矿物质来源研究 ——兼论中基性岩墙与金成矿作用关系

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中文摘要:小秦岭—熊耳山金矿区是我国重要岩金产地之一。对豫西小秦岭—熊耳山地区金矿床成矿物质来源的可能矿源层分析、同位素和稀土元素示踪等多方面的研究表明, 太华群结晶基底、燕山期花岗岩类、中生代中基性岩墙都不是金的成矿物质源区。该地区成矿物质来自于造山带环境下壳幔相互作用过程中的多种相关地质体, 成矿流体主要来自幔。中基性岩墙没有为金矿床提供成矿物质或热液流体, 金成矿作用与岩墙的关系主要表现在二者都形成于发生强烈壳幔相互作用的区域构造环境下, 从这种意义上来说, 二者是“栖”关系。

中文关键词: [金矿床](#) [成矿物质来源](#) [岩墙](#) [壳幔相互作用](#) [小秦岭—熊耳山地区](#) [秦岭造山带](#)

## Material Sources of Gold Deposits in Xiaqingling-Xiong' ershan Area of Western Henan Province as well as the Relationship between Gold Deposits and Intermediate-Basic Dykes

**Abstract:**The gold orefield in Xiaqingling-Xiong' ershan area of western Henan Province is one of the most important production areas of quartz vein gold deposits in China. We investigate the probable material sources of the gold deposits, the authors carried out isotope and REE Au abundance studies for the relationships of old strata of Taihua Group granite of Yanshanian period, and Mesozoic intermediate-basic dykes to the main gold deposits in the orefield. The results show that the Taihua Group, the granite and the intermediate-basic dykes were unlikely to be material sources of the gold deposits. The metallogenic materials of the orefield were mainly derived from various geological bodies that participated in the interaction process between the crust and the mantle in the environment of the Qinling orogenic belt. The ore-forming fluids mainly originated from the mantle. The intermediate-basic dykes afforded neither gold materials nor fluids to gold deposits, and they came into being in a background of intense interaction between mantle and the crust.