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论“华夏古大陆”——铅同位素研究证据 [点此下载全文](#)

[张理刚](#) [吴克隆](#)

中国地质科学院宜昌地质矿产研究所 宜昌 (张理刚, 王可法, 陈振胜, 刘敬秀, 于桂香)
福建省地质科学研究所 福州 (吴克隆)
地球科学研究所 台北市(兰晶莹)

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摘要:

我国东南部地区一批中生代花岗岩类岩石中长石铅同位素数据表明, 至少可将该地区地壳基底岩石划分三块, 包括江—绍断裂带以南, 赣江—河源断裂以东和政和—大埔断裂中, 南段以西地区, 它们的中生代花岗岩长石铅同位素 $^{207}\text{Pb}/^{204}\text{Pb}$ 和 $^{208}\text{Pb}/^{204}\text{Pb}$ 三组比值平均分别为 18.226; 15.620 和 38.725。这三块体为闽台块体, 即政和—大埔断

关键词: [铅同位素](#) [华夏古大陆](#) [断裂](#)

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[Zhang Ligang](#) [Wang Kefa](#) [Chen Zhensheng](#) [Liu Jingxiu](#) [Yu Guixiang](#)

Fund Project:

Abstract:

A group of Mesozoic granitoid samples from southeastern China were systematically collected and their feldspar lead isotopic data were obtained. In combination with published data, the possibility of extending the lead isotope province of basement rocks of southeastern China can be discussed according to the principle that the lead isotopic composition of feldspar can reflect the composition of basement rocks. The data indicates that the basement rocks of southeastern China can be divided into three blocks: I. the Wuyi block (B4-2 lead isotope province), which is bounded by the Jiang-Shao fault zone on the north, the Heyuan fault on west and by the central and southern sections of the Zhenhe-Dapu fault on the east. II. the Fujian-Taiwan block (B4-1 lead isotope province), covering an area to the east of the central and southern sections of the Zhenhe-Dapu fault. III. the Nanling-Hainan block (B4-3 lead isotope province), located west of the Ganjiang-Heyuan fault, with three corresponding lead isotope ratios 18.226, 15.620 and 38.725 respectively. According to the relationships among the lead isotopic compositions of feldspar mentioned three blocks, it is proposed that the fundamental factor causing the differences among the lead isotopic compositions for the U-Th-Pb system of source materials in particular tectonic and geochemical settings. Consequently, the accretion zone of the Wuyi block, and actually it was formed by amalgamation of three basement blocks with different nature. The Taiwan block is an accretion zone along the Wuyi block, while the Taiwan block was separated from the Late Mesozoic.

Keywords: [Cathay](#) [lead isotope](#) [lead isotope province](#)