

匡少平, 凌文黎. 大别造山带中镁铁质——超镁铁质岩石和榴辉岩有关问题的讨论[J]. 地质论评, 1999, 45(6): 584-595

大别造山带中镁铁质——超镁铁质岩石和榴辉岩有关问题的讨论 [点此下载全文](#)

[匡少平](#) [凌文黎](#)

中国地质大学地球科学学院地球化学研究所, 中国地质大学地球科学学院地球化学研究所, 中国地质大学地球科学学院地球化学研究所 武汉 430074, 武汉 430074, 武汉 430074

基金项目: 国家自然科学基金(编号: 49794043), 国土资源部壳幔开放重点实验室资助

DOI:

摘要:

根据近年来积累的文献资料及研究讨论指出: (1) 大别造山带镁铁质——超镁铁质岩石可分成两大类: 一类以任家湾、童家冲、祝家铺道士冲、青山、沙河等辉石辉长岩类为代表, 它们具有相同的性和成岩年龄, 可能与华北、华南地块聚敛碰撞产生的岛弧或大陆岩浆岩有关; 另一类以饶拔寨, 大化坪、碧溪岭和毛屋岩体为代表, 虽然它们的成岩年龄均在前寒武纪, 但却有着不同的成岩时代和成岩环境。(2) 大别造山带榴辉岩等多属异地来源, 具有不

关键词: [超镁铁质岩石](#) [成岩年龄](#) [榴辉岩](#) [镁铁质岩](#) [造山带](#)

Discussions on Mafic-Ultramafic Rocks and Eclogites in Dabie Orogen, Central China [Download Fulltext](#)

[Kuang Shaoping](#) [Ling Wenli](#) [Zhang Benren](#)

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Abstract:

On the bases of recent researches and recent references, this paper mainly discusses the origin and evolution of mafic-ultramafic rocks and eclogites occurring in high pressure-ultrahigh pressure metamorphic belt, Dabie orogen. Systematic studies of petrology and geochemistry indicate that the mafic-ultramafic rocks in this region can be divided into two types. The mafic-ultra-mafites of the first type, with similar geological characteristics and Sm-Nd age, are represented by Zhujiapu, Renjiawan and Tongjiachong gabbro intrusions in the northern Dabie orogenic belt, which are possibly associated with basaltic magmas from the island arc or continental mantle evolved from the collision between the North China and Yangtze blocks. On the contrary, those of the second type with different rock-forming ages and environments are almost of the Precambrian, derived from either continental mantle slices such as Naobozhai harzburgites or the differentiation of basaltic magmas in layered intrusions such as the Maowu and Bixiling peridotites. Eclogites in the Dabie HP-UHP metamorphic belt are not dominantly originated from their country rocks but produced from complicated protoliths with various isotopic ages. However, the fact that their metamorphic ages are concentrated in the Indosinian (197-246 Ma) suggests that all these eclogites experienced the same tectonic event of subduction-collision between the North China and Yangtze blocks. The evaluated formation depths (32.05 - 32.11 km) of coesite-bearing eclogites presented by Lu et al. (1998), we believe, are more reasonable than previous data of over 100 km in interpreting the exhumation of HP-UHP metamorphic rocks.

Keywords: [mafic-ultramafic rocks](#) [eclogites](#) [HP-UHP metamorphism](#) [protoliths](#) [rock-forming ages](#) [exhumation](#) [Dabie orogenic belt](#)

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