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摘要:

本文对在峨眉山玄武岩省中新发现的苦橄质岩石及其共生玄武岩的地球化学特征进行了研究, 结果表明, 隐质岩石均属高Ti玄武岩。其主要元素特征与大多数大陆溢流玄武岩省相似, 表现为高Fe₈、(CaO/Al₂O₃)₈和归一化微量元素配分曲线相似, 表现为轻稀土富集、高场强元素(HFSE)相对亏损, 并且不存在Nb、Ta的负异常, 而存在特征的比值, 如La/Ta、La/Sm、(La/Nb)_{PM}、(Th/Ta)_{PM}、Ta/Hf、Nb/Zr等, 变化范围小, 均指示了其地幔柱成岩圈地幔或地壳物质的混染, 是石榴子石二辉橄岩在>75km时经大约7%的部分熔融的产物。而地幔柱的轴部一带。

关键词: [苦橄岩](#) [地球化学](#) [地幔柱](#) [峨眉山大火成岩省](#)

Geochemistry of the Picrites and Associated Basalts from the Emeishan Large Igneous Constraints on Their Source Region [Download Fulltext](#)

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Abstract:

The geochemical characteristics of the picritic rocks that we discovered recently and their associated basaltic rocks, all the associated basaltic rocks belong to the high-Ti type. Like many other provinces, they are characterized by high Fe₈ and (CaO/Al₂O₃)₈ and low Na₈, indicating high pressure-normalized REE patterns and primitive mantle-normalized trace element patterns are similar, all of LREE and relative depletion of high field strength elements (HFSE) associated with an absence of anomalies but a presence of P and K negative anomalies, as characterized by most flood basalts. Such observations suggest the origin of mantle plume, and no or little crustal or lithospheric melting generated by about 7% of partial melting of garnet lherzolite at more than 75 km. Thus, the axis of the mantle plume should be located beneath the Lijiang County Town, Yunnan Province.

Keywords: [picrite](#) [geochemistry](#) [mantle plume](#) [Emeishan large igneous province](#)