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摘要:

月照 琵琶寺地区的变质火山岩出露于甘肃武都县境内, 夹在泥盆系和前震旦碧口群地层之间。按地球化学分类, 火山岩可划分为双峰式和碱性两个系列。双峰式火山岩系由低K富Na拉斑玄武岩和酸性英安岩、流纹岩组成。该玄武岩具有类似MORB的微量元素特征, 平坦的稀土配分模式, 但富Th贫Nb显示其受到陆壳混染的影响。该套火山岩总体特征指示其为大陆裂谷向成熟洋盆转化阶段的产物, 从而推测本区火山岩可能为勉略古洋盆西延的分支产物。

关键词: [月照](#) [琵琶寺地区](#) [勉略洋](#) [双峰式火山岩](#) [碱性火山岩](#) [地球化学](#)

Geochemistry of the Yuezhao Pipasi Volcanic Rocks in the West Qinling and Geological Significance [Download Fulltext](#)

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Fund Project: 月照 琵琶寺地区的变质火山岩出露于甘肃武都县境内, 夹在泥盆系和前震旦碧口群地层之间。按地球化学分类, 火山岩可划分为双峰式和碱性两个系列。双峰式火山岩系由低K富Na拉斑玄武岩和酸性英安岩、流纹岩组成。该玄武岩具有类似MORB的微量元素特征, 平坦的稀土配分模式, 但富Th贫Nb显示其受到陆壳混染的影响。该套火山岩总体特征指示其为大陆裂谷向成熟洋盆转化阶段的产物, 从而推测本区火山岩可能为勉略古洋盆西延的分支产物。

Abstract:

Yuezhao Pipasi metamorphic volcanic rocks are exposed between the Devonian strata and the pre-Sinian Bikou Group in Wudu county of Gansu Province. Based on geochemical classification, volcanic rocks can be divided into bimodal and alkaline. The bimodal volcanic rocks consist mainly of dacitic rhyolite and tholeiitic basalts characterized by low K and high Na concentration. The REE distribution patterns of tholeiitic basalts show the flat style and their trace elements geochemistry is similar to MORB. But the low Nd and high Th concentration imply contamination by the continental crust in magma process. All above evidences suggest that the Yuezhao Pipasi metamorphic volcanic rocks were the products of transition from continental rift to matured oceanic basin, implying that the volcanic rock may be the west branch of the Mian-Lue paleo-ocean.

Keywords: [the Yuezhao Pipasi area](#) [the Mian-Lue ocean](#) [Bimodal volcanic rocks](#) [Alkaline volcanic rocks](#) [Geochemistry](#)

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