



曹殿华, 王安建, 修群业, 杨岳清, 李瑞萍. 中甸地区甬哥正长岩地球化学特征及其地质意义[J]. 地质学报, 2007, 81(7): 995-1003

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基金项目: 本文为国家科技攻关(编号2001BA609A-05, 2003BA612A-05)、国家973项目(编号2002CB412607)和国家科技支撑计划项目(编号2006BAB01A07)的资助成果。

DOI:

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摘要:

长期以来, 甬哥正长岩体被认为是印度—欧亚板块碰撞引起的走滑剪切构造所控制的碱性岩浆活动的产物。本文研究表明甬哥正长岩属钾玄岩系列, 富集K₂O (5.88%~9.08%)、稀土元素(特别是轻稀土元素)和大离子亲石元素, 高场强元素亏损, 具有岛弧型微量元素特征。地球化学数据表明原岩于高压条件下发生部分熔融, 岩浆源区深度较大, 经历了结晶分异作用形成长岩岩浆。甬哥正长岩的锆石稀释法U-Pb测定年龄为201.4Ma, 略晚于中甸弧钙碱性斑岩, 其形成的构造环境是弧后拉张环境, 甘孜—理塘洋向西低角度俯冲使中甸地区地壳挤压增厚, 从而在较深的深度形成原始岩浆。在中甸岛弧岩浆演化后期存在区域性的构造体制转折, 从区域性的挤压环境转换成区域性的拉张环境, 甬哥岩体的侵位处于两者的过渡时期。

关键词: [正长岩](#) [甬哥](#) [中甸地区](#) [地球化学](#) [锆石U-Pb年龄](#)

Geochemical Characteristics of Ben e Syenites in the Zhongdian Area, Yunnan Province and Its Geological Significance [Download Fulltext](#)

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Fund Project:

Abstract:

Bengge syenites has been always regarded as the product of alkaline magma activity controlled by the strike-slip structures caused by collision between Yindia and Euroasia. The Bengge syenites belongs to shoshonite series, and the rocks are very enriched in K₂O (5.88%~9.08%), rare earth elements (REE; particularly light REE) and large ion lithophile elements, but are relatively low in high field strength elements, with the element character like arc magmas. The geochemical data suggest that the primitive magma of the syenites partially melted under high pressure, and most likely formed via fractional crystallization. Zircon U Pb dating of isotope dilution method indicates that the Bengge intrusions have Late Triassic (201.4Ma) crystallization ages, respectively. Our data suggest that the syenites formed under extensional geological setting behind continent arc. Combined with previous regional structural, and sedimentary data, we suggest that emplacement of the Bengge extrusion took place at the transitional period from extrusion to extension.

Keywords: [syenite](#) [Bengge](#) [Zhongdian area](#) [geochemistry](#) [zircon U - Pb dating](#)

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