长江源各拉丹冬地区晚三叠世火山岩锶、钕同位素地球化学特征及其意义

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提要：对各拉丹冬地区晚三叠世火山岩进行了颗粒锆石U-Pb测年和Sr、Nd同位素分析，颗粒锆石的U-Pb年龄值为（212±1.7）Ma，全岩样品的ISr、εNd（t）和Nd模式年龄tDM变化在0.703 25~0.709 17、-0.8~-4.6和1 064~1 379 Ma之间。分析结果表明，形成晚三叠世火山岩的原始岩浆是壳幔混合型。结合岩石化学、稀土元素、微量元素等特征，该套火山岩的形成与岛弧－活动陆缘环境有关。

关键词：三叠纪； 火山岩； 锶、钕同位素； 青藏高原
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Sr and Nd isotope geochemistry of Late Triassic volcanic rocks at Gêladaindong in the source region of the Yangtze River and its significance

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Abstract： Sr and Nd isotope analysis and zircon U-Pb dating were performed for Late Triassic volcanic rocks in the Gêladaindong area in the source region of the Yangtze River. The zircon U-Pb age is 212±1.7 Ma. The initial Sr isotope ratios of basalt and andesite range from 0.703 25 to 0.709 17 and from 0.70545 to 0.708 44 respectively， the εNd(t) values are negative， ranging from -0.8 to -4.6， and tDM ranges from 1064 to 1 379 Ma， which indicates that the primary magma of the Late Triassic volcanic rocks might be of crust-mantle mixing type. These ages， combined with the related major element， rare earth element and trace element geochemistry， suggest that the formation of this suite of volcanic rocks was related to the island arc-active continental-margin environment.

Key words： Triassic； volcanic rock； Sr and Nd isotopes； Qinghai-Tibet Plateau