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北阿尔金红柳泉早古生代枕状玄武岩及其大地构造意义 点此下载全文

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摘要:

对北阿尔金蛇绿混杂岩带中红柳泉剖面的枕状玄武岩进行了岩石地球化学研究,主元素具有高钛高钠、低含量为43.34%~52.55%,Na 2 0含量为3.97%~7.36%,K 2 0含量为0.27%~0.94%。TiO 2 含量为2.12量为9.02%~13.77%,显示出细碧岩(Spilite)的地球化学特征。微量元素配分模式类似于洋岛或海山玄武岩(区武岩(MORB)。 87 Sr/ 86 Sr比值为 0.7043 ~0.7052, 143 Nd/ 144 Nd比值为0.5122为2.19~3.88,玄武岩浆主要来自于上涌的含有富集组分的软流圈地幔。综合考虑剖面上出现的沉积岩石组合,这山环境。在阿尔金走滑断裂形成以前,北阿尔金与北祁连构成一个统一的弧后盆地系统,是原特提斯洋在中国均高原和中国西部大地构造格局的演化具有重要意义。

关键词: 枕状玄武岩 蛇绿岩 北阿尔金 红柳泉

The Early Paleozoic Pillow Basalt in Northern Altyn, Western China and it Tectonic $\tilde{}$ Fulltext

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Abstract:

This paper reports petrologic and geochemical study results of Early Paleozoic pillow basal the Hongliuquan section in the Northern Altyn Tagh, western China. The content of SiO 2 range index vary from 39 to 58. They are high in TiO 2 (2.13% 5.49 %) and Na 2 O (3.97%7.5 (9.02% 13.77%) and K 2 O (0.27% 0.94%), which resembles to those of spillite. Their trace MORB but comparable to the OIB or seamount basalt. They display varied 87 Sr/86 Sr (0.70 144 Nd (0.51253 0.51265). Our study interprets the pillow basalt originated from upwelling a enriched components. Considering comprehensively the sedimentary rock assemblage on field profile, magma extruded into the back arc basin. System of back arc basin in the northern Altyn Tagh was the northern Qilian Mountain, and likely it was the northernmost margin of proto Tethys in China Altyn strike slip fault. This is of great importance for understanding the evolution of the Qingl tectonic patterns of western China.

Keywords: Pillow Basalts Geochemistry Back arc basin Northern Altyn western China