

Geochemical Characteristics of Volcanic Rocks at Late Carboniferous in Southeast Heishanling of Beishan area, Xinjiang

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The characteristics of volcanic geochemical at the end of Late Carboniferous in southeast Heishanling of Beishan, Xinjiang[1-3] were studied by the major, rare earth elements, trace elements methods of rock and geochemistry. The result show that: (1) Ganquan cycles volcano rock is a volcano rock assemblage with calc alkaline sodic volcano rocks or a small amount of alkaline volcano rock composition. (2) the magma originates from the loss of mantle, the assimilation effect is stronger in the early evolution, magmatic assimilation effect is reduced in the process to upthrust in the late due to the temperature and pressure reducing, and the fractional crystallization has been enhanced, mainly show some large ion dear stone element content irregular fluctuations. (3) Beishan Rift Valley of Ganquan cycle in Late Carboniferous is in tectonic extrusion shrinkage, which generates a set of matched with the volcano rock assemblage and sedimentary formation, and subsequent early Permian volcano activity is caused that orogenic belt thickening lithosphere wide delamination results in a wide range rising of loss partial melting of mantle magma.

- [1] Guochao Zuo, *et al* (2003), *Acta Geologica Gansu* **1**, 1-15.
[2] Yuwang Wang, *et al* (2005), *Geology and Prospecting* **6**, 37-40. [3] Lianhui Dong, *et al* (2005), Xinjiang Science and Technology Press.