On the comparisons of chemical element abundances of granitoids between China and the world

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The variation in abundance of chemical elements in granitoids is seen as an important part of the study of element abundances of the Earth's crust. The average chemical composition and chemical element abundances of granitoids of China were calculated based on the actual granitoid analytical data of 70 elements in 767 composited samples. The data source is 6080 samples collected mainly from 750 large- to middle-sized granitoid bodies across China [1]. The abundances of chemical elements of granitoids of China and the world of Vinogradov (1962) [2] are compared on the petrochemical parameters, trace elements content and rare earth element distributions.

Comparing to the abundances of chemical elements of granitoids of the world, in rock geochemistry, China granitoids is characterized by rich in SiO2, Na2O and K2O. In the trace element characteristics, in addition to higher Ag, Bi, Pb, Sc, Hf and Tm content, other elements content of China granitoids are lower. China granitoids is in the lower position on the Chondrite-normalized spider diagram of trace elements. In the distribution of rare earth elements,∑REE, LREE, HREE and LREE / HREE of China granitoids were significantly lower, and on the REE distribution patterns the curve position of China's granitoids is below the world granitoids. On the contrary, δ Eu of Chinese granitoids is larger than that of the world granitoids.

[1] Shi *et al* (2005) *Geochemica*, **34** (5):470-482. [2] Vinogradov (1962) *Geochemistry*, (7):641-664.