

Trace element abundances in lherzolites from the Oman Ophiolite and their implications for mantle processes

Eiichi Takazawa[1]

[1] Geology Dept., Niigata Univ.

Two types of genetically unrelated lherzolites have been found on the base of the mantle section from the Fizz block in the northern Oman ophiolite. Type I lherzolite has oceanic affinity and is depleted in Na, Ti, Zr, and REEs. These characteristics are consistent with residue after partial melting of MORB source mantle in the spinel-stability field. On the other hand, Type II lherzolite has continental affinity, which may have been produced by partial melting under higher pressure (near garnet-spinel transition) than matured mid-ocean ridge, or by mixing between harzburgite and basaltic melt.