

## **FRACTIONATION OF TRACE ELEMENTS DURING DIFFERENTIATION OF ALKALINE-ULTRABASIC MANTLE MAGMAS**

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Based on recent mineralogical, petrological, and experimental data, melilite-bearing and melilite-free rock series within single ring alkaline -ultrabasic complexes are treated as derivatives from two different primary mantle magmas. The parental magma for melilite-bearing rocks, as compared with that for melilite-free rocks, must be enriched in Ca-content and some trace elements, due to melting conditions at more or less depths, respectively. The distribution of trace elements, REE, and P in melilite-bearing and melilite -free rocks, their rock-forming and accessory minerals from alkaline -ultrabasic massifs Guli, Odikhincha, Kugda, and Kara-Meni (Maimecha-Kotui province, NW Siberian Platform) was investigated using EPMA, XRF and ICP techniques. The indicator signification of Sr, REE, and Zr contents which are principally different in the above rocks, comparable in differential degree, is found out. Based on the analysis of trace element logarithmic relations in sequential derivatives, their fractionation during differentiation of parent magmas for the two series - Ca-rich and Ca-poor - was established to be in accordance with Rayleigh model, with different parameters. The author thanks RFBR for financial support (N 98-05-65017)