Vestnik Otdelenia nauk o Zemle RAN, VOL. 4, NZ9001, doi:10.2205/2012NZ_ASEMPG, 2012

Experimental modeling of the transformation of kimberlite barophilic minerals in the pipe condition

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Experimental and physico-chemical modeling of pyropes and picroilmenites regressive transformation processes allowed studying their transformation kinetics and obtaining the duration of stay of kimberlite pipes at active state. Kelyphitic rims on the kimberlites high-pressure minerals composed both of primary and secondary minerals that replaced the primary minerals of kelyphyte have been studied. It was shown that formation of secondary chlorite-calcite-serpentine rims on garnets occur only after the primary kelyphitic rim. Results of physico-chemical modeling of garnets transformation agree well with the experiment and correspond to native analogues.

Key words: experiment, pressurefile minerals of kimberlites, kinetic of process

Citation: Medvedev, V. Ya., L. A. Ivanova, K. N. Egorov (2012), Experimental modeling of the transformation of kimberlite barophilic minerals in the pipe condition, *Vestn. Otd. nauk Zemle, 4*, NZ9001, doi:10.2205/2012NZ_ASEMPG