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**ФИЗИКО-ХИМИЧЕСКИЕ УСЛОВИЯ ОБРАЗОВАНИЯ ХОЛМКВИСТИТА
И СПОДУМЕНА В ПЕГМАТИТООБРАЗУЮЩИХ СИСТЕМАХ**

V. G. KRIVOVICHEV, N. I. PONOMAREVA. PHYSICAL-CHEMICAL CONDITIONS
OF HOLMQUISTITE AND SPODUMENE FORMATION IN THE PEGMATITE-FORMING
SYSTEMS

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On the base of thermodynamic calculations and plottings some differences have been detected between formation conditions for „metasomatic” spodumene in the rare-metal granite pegmatites and, from another side, for holmquistite in their host rocks. For this purpose, mineral equilibria between spodumene, holmquistite, hornblend, plagioclase, muscovite and biotite were studied. It is shown that the holmquistite stability is determined, first of all, by the higher activity of Mg and/or Fe within the mineral-forming media. With their relatively lower activity spodumene is stable. Comparison of forming conditions is made for spodumene-bearing pegmatites of Kola peninsula and Tanco, Bernic-Lake (Canada). The main differences in their formation are shown to being due to the pressure.