

Experiment investigation of partitioning elements KCl-KBr-LiKCrO₄ and KCl-KBr-Li₂CrO₄ in the quaternary reciprocal system Li,K||Cl,Br,CrO₄

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Abstract

In this paper, the quaternary reciprocal system Li,K||Cl,Br,CrO₄ was partitioned into simplexes using geometrical method and graph theory. A tree of phases of the system was constructed, and stable elements were identified. Phase equilibrium in partitioning triangles KCl-KBr-LiKCrO₄ and KCl-KBr-Li₂CrO₄ were studied by differential thermal analysis. In these systems, the stability of continuous series of solid solutions based on potassium chloride and bromide is preserved.