Journal of Physics: Conference Series 2014 vol.560 N1

Growth of solid solutions with colquiriite structure LiCa0,2Sr0,8AlF6: Ce3+

Shavelev A., Nizamutdinov A., Semashko V., Marisov M.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© Published under licence by IOP Publishing Ltd. Aim of this work were experiments on growing new materials based on fluoride crystals with the colquiriite structure LiSr0,8Ca0,2F6, as well as the study of their phase composition. It is shown that for a series of crystals LiSr0,8Ca0,2F6 distribution of reflections observed corresponds to the colquiriite structure, and the dependence of the lattice constant in the transition from LiCaAlF6 crystal to LiSrAlF6 crystal is linear. Also it found that absorption coefficient in mixed samples is much larger than in not mixed.

http://dx.doi.org/10.1088/1742-6596/560/1/012001