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## Concentration dependence of EPR spectra in mixed (BaF<sub>2</sub>)<sub>1-x</sub>(CeF<sub>3</sub>)<sub>x</sub> crystals

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### Abstract

In the EPR spectra of the (BaF<sub>2</sub>)<sub>1-x</sub>(CeF<sub>3</sub>)<sub>x</sub> system, additional lines appear as the concentration  $x$  in the mixture increases from  $10^{-3}$  to  $10^{-2}$ , some of which correspond to tetragonal centers with  $g_{\parallel} = 0.725$  and  $g_{\perp} = 2.52$ . These lines are similar to those detected previously in mixed (BaF<sub>2</sub>)<sub>1-x-y</sub>(CeF<sub>3</sub>)<sub>x</sub>(LaF<sub>3</sub>)<sub>y</sub> systems with a low cerium concentration ( $x \approx 10^{-3}$ ) and in the CaF<sub>2</sub>: Ce<sup>3+</sup> crystal grown with added Na<sup>+</sup> ions. © 2013 Pleiades Publishing, Ltd.

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