

## **EPR of Pb<sup>3+</sup> ion in LiBaF<sub>3</sub> crystals**

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### **Abstract**

Complex EPR spectra of paramagnetic centers Pb<sup>3+</sup> formed in LiBaF<sub>3</sub>:Pb<sup>2+</sup> crystals under X-ray irradiation are studied in the temperature range of 10-150 K. It is shown that lead ions substitute Ba<sup>2+</sup> ions in the LiBaF<sub>3</sub> crystal and are in the cubic-octahedral 12-fold environment of the fluorine ions. The hyperfine structure constants describing the observed spectrum are determined and parameters of superhyperfine interaction with the nearest fluorine ions are estimated. © Springer-Verlag 2006.

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