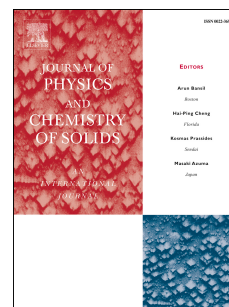


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A photoluminescence, thermoluminescence and electron paramagnetic resonance study of EFG grown europium doped lithium fluoride (LiF) crystals

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Title Page

Title: A photoluminescence, thermoluminescence and electron paramagnetic resonance study of EFG grown Europium doped Lithium fluoride (LiF) crystals

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Highlights:-

1. To grow the Eu doped LiF crystals using a novel EFG technique.
2. Reduction of $\text{Eu}^{3+} \rightarrow \text{Eu}^{2+}$ took place in argon gas atmosphere at high temperature.
3. PL emission spectra show the coexistence of Eu^{3+} and Eu^{2+} form in the as-grown crystals.
4. A simple TL glow curve structure with prominent peak at 185°C.
5. EPR results confirm the Eu^{2+} associated defects.

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