

Growth and Investigation of CsI:Na,Ce Crystal for Radiation Detection

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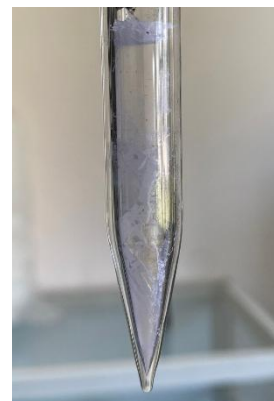
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A Ce³⁺ co-doped CsI:Na scintillator crystal was successfully grown by the vertical Bridgman method for radiation detection applications. CsI:Na is a well-established scintillator known for its high light yield and good energy resolution, while Ce³⁺ doping is widely known for faster decay times through the 5d-4f transition [1-6]. The purpose of this study is to investigate scintillation properties of co-doped CsI:Na,Ce crystals. The grown crystals were characterized for their optical and scintillation properties. Preliminary results and detailed characterization of the CsI:Na,Ce crystals will be presented, including luminescence spectra, light yield measurements, and decay time analysis. To the best of our knowledge, the scintillation properties of CsI:Na co-doped with Ce³⁺ have not been extensively reported, making this study a significant contribution to the development of co-doping alkali halide scintillators.



The CsI:Na,Ce crystal grown by the Bridgman method

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