

Growth and optical properties of the newly developed Pr:LGSB bifunctional crystal

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Incongruent melting Pr-doped $\text{La}_{0.678}\text{Gd}_{0.572}\text{Sc}_{2.75}(\text{BO}_3)_4$ (Pr:LGSB) crystals were grown by the Czochralski method, for the first time to our knowledge. The spectroscopic and nonlinear optical properties of the 2.5 at.% Pr:LGSB crystal shown that it can be a promising self-frequency doubling crystal in the UV range at ~ 301.5 nm.

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