

In₂S₃ 및 In₂S₃:Co²⁺ 단결정의 광학적 특성에 관한 연구

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Optical Properties of In₂S₃ and In₂S₃:Co²⁺ single crystal

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Abstract : Single crystal of In₂S₃ and In₂S₃:Co²⁺ were grown successfully with a good quality by the CTR(Chemical Transport Reaction)method. XRD analysis showed that the grown In₂S₃ and In₂S₃:Co²⁺ single crystals were cubic structure. The optical absorption spectra of In₂S₃:Co²⁺single crystal showed impurity absorption peaks due to cobalt impurity. These impurity absorption peaks were assigned to the ligand transition between the split energy levels of Co²⁺ ions with T_d symmetry of these semiconductor host lattice.