

Study on Intermediate Valence Fluctuation in Samarium Telluride (SmTe)

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Intermediate valence fluctuation of samarium telluride (SmTe) is analyzed by charge transfer calculation using experimental and theoretical X-ray powder diffraction (XRPD) data. The direction and amount of charge transfer are determined by plotting and comparing the structure factor components. The charge transfer thus obtained for SmTe is 0.11 electrons from Sm to Te.

Key words: SmTe; Valence Fluctuation; Charge Transfer; XRD.

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