

11Th Khwarizmi International Award

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Researcher: Perumalsamy Ramasamy

Research Title: Crystal Growth

Rank: First

Field: Materials and Metallurgy

Country: India



Abstract:

Optimized growth conditions were employed to grow good quality lead tungstate single crystals. Data were obtained on the optical absorption and radiation damage. Radiation-induced optical damage was found to be more for yellow-tint crystals than for colorless crystals. Samples cut from different portions of the crystal were analyzed with photoluminescence studies which showed quality-dependent intensity variation. Thermo luminescence measurements made on gamma irradiated crystals showed different type of glow curves for different samples. An investigation was also made to determine the mechanical hardness of the material.

P. Ramasamy was born 1944. He was completed his PhD in Physics in 1976 from the University of Madras and won the Governor-Chancellor's Gold medal for best thesis of the year. He is a former Vice Chancellor of Alagappa University and Founder & Director of Crystal Growth Centre, Anna University.