

TEMPERATURE DEPENDENCE DIELECTRIC BEHAVIOR OF Ge DOPED LEAD SCANDIUM TANTALATE FERROELECTRIC

Mr. CHANDRA KR.DIXIT¹ and Mr. A.K. SRIVASTAVA²

*¹Department of Physics Feroze Gandhi Institute of Engg. & Technology
Raebareli -229001 U.P*

*²Central Laboratory of Material Science, Kamla Nehru Institute of Physical & Social Sciences Sultanpur -228001 U.P
Email: ckparadise@gmail.com*

ABSTRACT

The doped of $\text{Pb}_2\text{SeTaO}_6$ with Ge ferroelectrics, produced by high temperature solution method. We measure dielectric constant, dielectric loss and conductivity in the temperature range -30^0 to 200^0C and frequency range 10 kHz, 100 kHz and 1 MHz. The value of dielectric constant of the PST crystal remained the same after thermal annealing whereas they decreased after Ge doping in the Phase Transition temperature range of PST single crystal. All sample investigated for conductivity with increasing temperature.

KEY WORDS: Dielectric loss, Dielectric constant, conductivity, ferroelectrics.