

# Spectral Intensity Calculation In Insulator With Two Sets of Distributed Traps – II

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## ABSTRACT

Analytical study for the thermal noise behavior of steady state single injection space-charge-limited current flow in insulators with energy separation of two sets of distributed traps too small to give rise a current voltage characteristic of maximum structure. The complete thermal noise characteristic for the given problem is evaluated in terms of the spectral intensity of voltage fluctuation with the help of regional approximation and salami methods. The complete thermal noise characteristic is started from a higher constant value of spectral intensity which decreases sharply due to the trapping effects and space charge. It is shown that the thermal noise is highly suppressed by the space charge and there is a large reduction in the noise due to the small change in applied voltage. The experimental support for this analytical study is given with the help of experimental work on p type GaSe sample by other workers of the field.

**PACS.** 72.20.-i conductivity phenomena in semiconductor and insulators – 72.80.Sk Insulators – 72.70.+m Noise processes and phenomena.

**Key Words:** Space-charge-limited-current, Spectral intensity of Thermal Noise, Regional approximation method, Salami Method, Distributed Traps.