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The Temperature Dependence of the Electronic Structure of Si δ -doped GaAs

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 [Keywords](#)
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Abstract: We investigated theoretically the change of electronic properties of Si δ -doped GaAs layer as a function of temperature. We studied the influence of temperature on the donor concentration for a nonuniform distribution, which is taken as different from the known Gaussian distribution. In order to obtain the electronic structure we have calculated self-consistent Schrödinger - Poisson equations. We have seen that the change of the electronic properties as dependent on temperature is less pronounced at higher doping concentration.

Key Words: δ -doped GaAs, electronic structure, temperature-dependence.



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