

Current-Voltage (IV) and Capacitance-Voltage (CV) Measurements on the GaAs/Al_xGa_{1-x}As Heterojunction

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In this Work the GaAs/Al_xGa_{1-x}As heterojunction has been studied using both CV and IV techniques. The material was grown by Molecular Beam Epitaxy. Measurements were performed on GaAs/Al_{0.3}Ga_{0.7}As heterojunctions having carrier concentrations in the range of 10^{16} to 10^{17} cm⁻³. The conduction band offset estimated from both methods was found to be about 65%. This is in good agreement with the values obtained from other electrical and optical methods.