Number of Ionized Dopants vs doping density for Ge at T = 300K 1.2 $N_A - /N_A$ Ge N_T^-/N_T Ge 1.0 8.0 0.6 0.4 Ge Parameter: $E_a = 0.66 \text{ eV}$ $m_n^* = 0.55 m_e$ 0.2 $m_p^* = 0.37 \ m_e$ 0.0 10¹⁶ 10^{18} 10²⁰ 10²² 10^{24}

doping density / m⁻³