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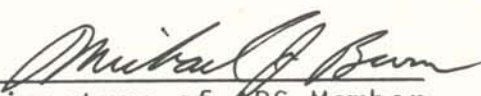
Sorting Category  
12b Doped Semiconductors

Thermoelectric Power and Magnetic Tuning  
of the Metal-Insulator Transition in n-type

Ge. M.J. BURNS, University of Florida --

Magnetic fields have pronounced effects on the transport properties of doped semiconductors. In particular, degenerately doped n-type Ge can be driven through a metal-insulator transition by the application of large magnetic fields at low temperatures. Previous studies<sup>1</sup> indicate the Hall coefficient varies little while the resistivity increases by a factor of ~3000. Our measurements of the thermoelectric power, like the Hall Effect, show no changes as the resistivity of the samples increases dramatically. Resistivity, Hall, and Thermopower data will be presented and compared with various models.

<sup>1</sup> R.M. Westervelt, M.J. Burns, P.F. Hopkins and A.J. Rimberg, in Anderson Localization, ed. T.Ando and H.Fukuyama (Springer Verlag, Berlin 1988)

  
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Prefer Standard Session