General Diffusivity-Mobility Relationship for Heavily Doped Semiconductors

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A relationship between diffusivity and mobility in degenerate semiconductors is presented. The re-

A relationship between diffusivity and mobility in degenerate semiconductors is presented. The relationship is general enough to be applicable to both non-degenerate and degenerate semiconductors. It is suitable for the investigation of the electrical transport in heavily doped semiconductors.

Key words: Semiconductors; Diffusivity, Mobility.