

Rashba effect in wurtzite n-GaN:Si layer on semi-insulating GaN:Mn

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Spin-orbit effects attract a renewed attention in the context of novel effects expected in hybrid structures involving semiconductors, metals, ferromagnets, and superconductors. Owing to broken inversion symmetry, the spin-orbit interaction gives rise to the Rashba term in wurtzite semiconductors. We have determined the magnitude of this term from millikelvin magnetotransport studies on GaN:Si deposited onto semi-insulating GaN:Mn, and compared it with results of relativistic ab initio studies [1].

References:

[1] W. Stefanowicz et al, arXiv:1402.6843.

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