

EFFECT OF B, Si AND P CO-DOPING
ON ELECTRONIC PROPERTIES
OF Mn-DOPED AlN CRYSTALS

S.V. Syrotyuk, V.M. Shved

Lviv Polytechnic National University,
Semiconductor Electronics Department,
(12, *Bandera Str., Lviv 79000, Ukraine*)

S u m m a r y

The partial and total electron state densities of Mn-doped AlN crystals co-doped with B, Si, and P atoms are calculated for the up and down orientations of the spin moment. The comparison of the electron state densities of pure and Mn-doped AlN crystals shows that the Mn impurity leads to the appearance of hybridized energy states with p - and d -symmetry in the forbidden band. The co-doping with B, Si, and P atoms results in a change of the electron state density and the spin magnetic moments on all atoms of the crystal.