

THE SPECTROSCOPIC SPLITTING FACTOR
FOR ELECTRONS LOCALIZED
AT SHORT-RANGE DEFECTS

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S u m m a r y

A generalized **kp**-approach to describe the g -factor of an electron localized at a short-range defect in a narrow gap semiconductor has been developed. The consideration has been carried out in the framework of the Green's function method and the Kane model for semiconductor band states, as well as the zero-potential model for a deep center. The values of the g -factor for an electron in a conduction band, at a shallow donor, and at a deep short-range center located not far from the bottom of the conduction band have been demonstrated to be large and negative and not to differ too much from each other. However, as the center becomes deeper, the g -factor of the electron localized at it decreases, so that the g -factor changes its sign and becomes positive for a center located below the middle of the gap.