

INFLUENCE OF THE MEDIUM  
POLARIZATION ON THE ENERGY  
OF AN ELECTRON IN A QUANTUM DOT

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S u m m a r y

The Buimistrov–Pekar method has been applied to calculate the polaronic shift of the electron energy level in a quantum dot. In the framework of the parabolic confinement approximation, the differential equation for the phonon amplitude is exactly solved, by using the Green’s function method. The results of various approximations have been compared.