

ENERGY LEVELS AND EIGENFUNCTIONS
FOR TWO-DIMENSIONAL ELECTRON SYSTEMS
WITH CONFINING SQUARE WELL POTENTIALS
AND SPIN-ORBIT INTERACTIONS
IN THE PRESENCE OF MAGNETIC FIELD

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S u m m a r y

Solutions of the Schrödinger equation are obtained for electrons in two-dimensional circular semiconductor quantum dots and rings in the presence of both external uniform constant magnetic field and the Rashba and Dresselhaus spin-orbit interactions of equal strengths. Confinement is simulated by realistic square well potentials. The dependence of the energy levels on the magnetic field and the strength of spin-orbit interaction is presented in detail.