

MACROSCOPIC BULK STATES OF CARRIERS
IN QUASI-ZERO-DIMENSIONAL STRUCTURES

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S u m m a r y

A theory of size-quantization of carriers in a small semiconductor sphere is developed under the conditions when the polarization interaction is dominant. The energy spectrum of carriers in the small semiconductor sphere and its dependences on the sphere radius, effective mass of carriers, and relative permittivity are studied. It is shown that there is a threshold radius of the sphere for the formation of local states of carriers.