

PROPERTIES OF PHONON, ELECTRON AND
HOLE SPECTRA IN SOME CYLINDRICAL
NANOHETEROSYSTEMS

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S u m m a r y

Phonon spectra in complicated cylindrical quantum wires of two types are calculated and analyzed by taking into account limit cases. Electron and hole spectra of a quantum wire in the medium are obtained. It is shown that the exact considering of the effective masses of quasiparticles causes the essential narrowing of the region of quasimomenta where the stationary states confined in the radial direction exist.