Why a magnetized quantum wire can act as an optical amplifier
M.S. KUSHWAHA, Rice University — Essentially, we embark on the device aspects
of the intersubband collective (magnetoroton) excitations in a quantum wire charac-
terized by a confining harmonic potential and subjected to a perpendicular magnetic
field. The computation of the gain coefficient suggests a significant application: the
electronic device based on such magnetoroton modes can act as an optical amplifier.