

Applied Quantum Mechanics

Sharif University Course Material

Quantum Resonant Tunneling

As can be seen from the following figures, resonant tunneling can be used as an effective High-Q filter for ratios of barrier-to-well width (a/d) in a certain range ($a/d = 1$ and 0.5 for instance). For all figures, the depth and width of the well are 1eV and 1nm ; barrier width varies as indicated.



