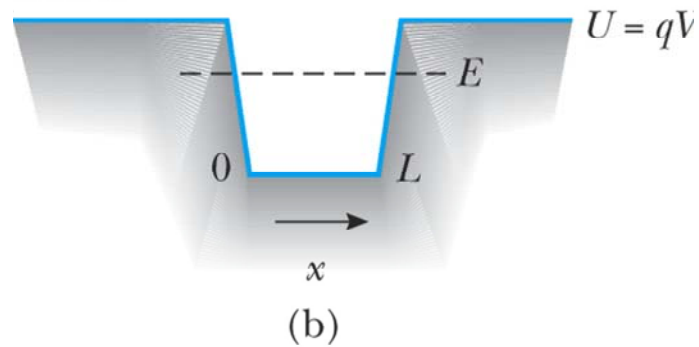


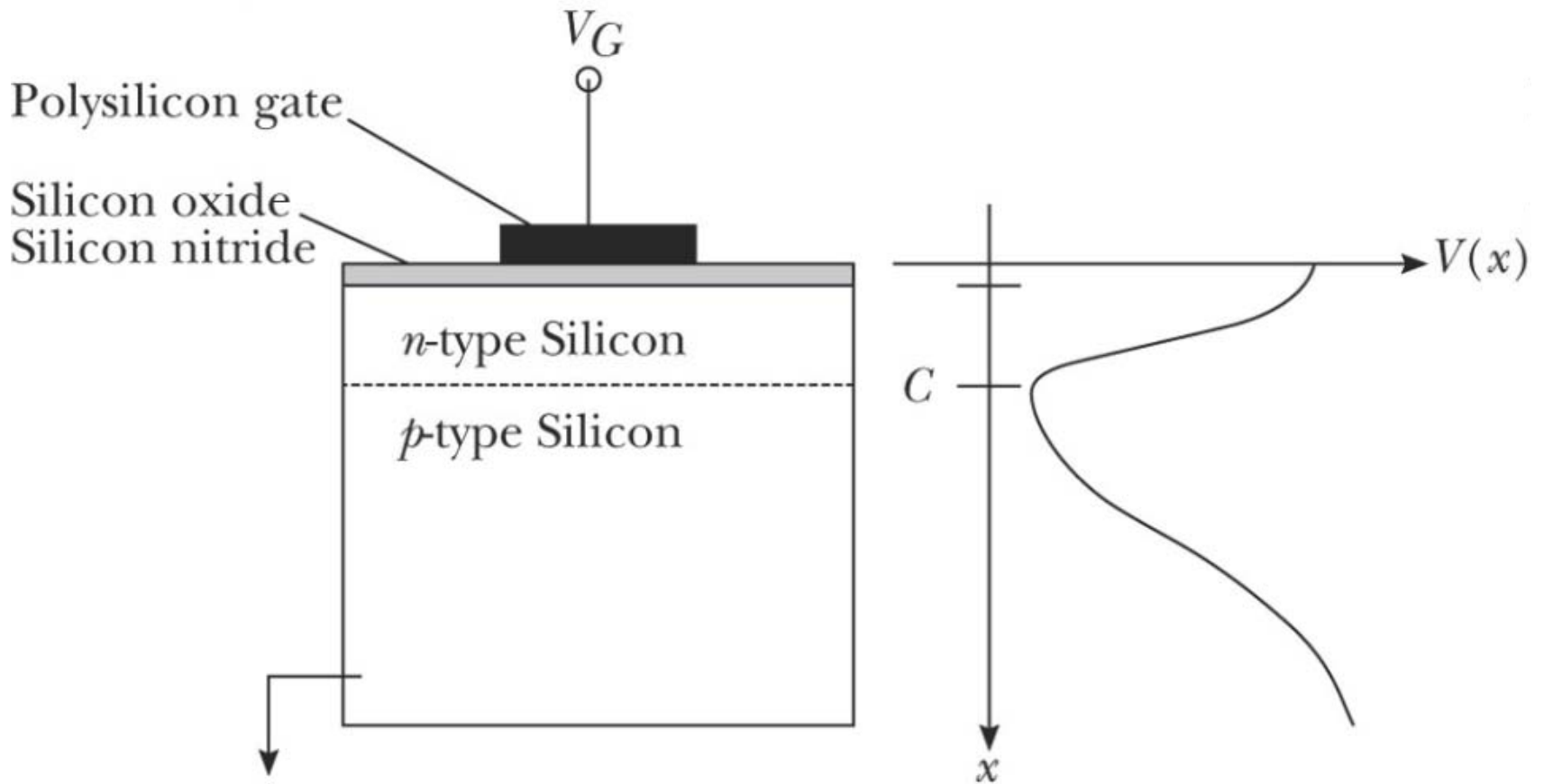
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Fig. 6-6, p. 201

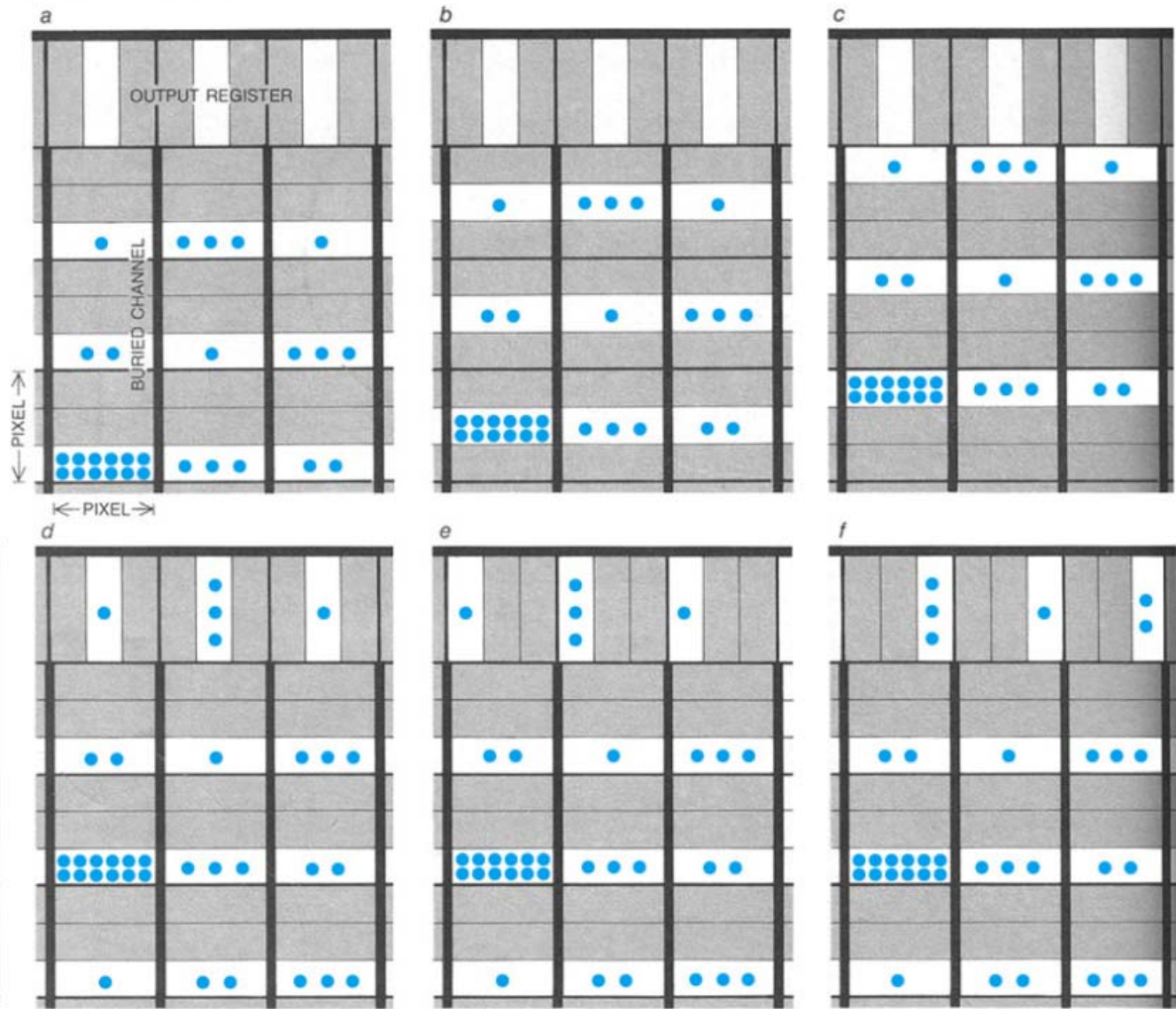


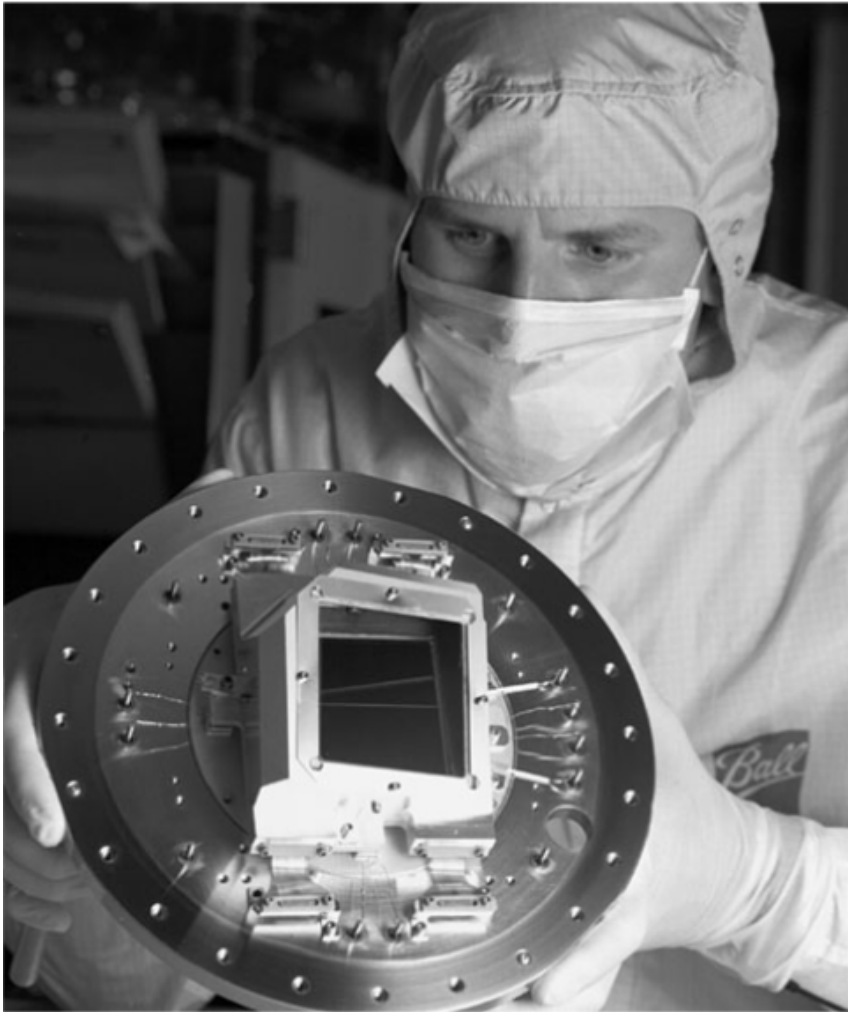


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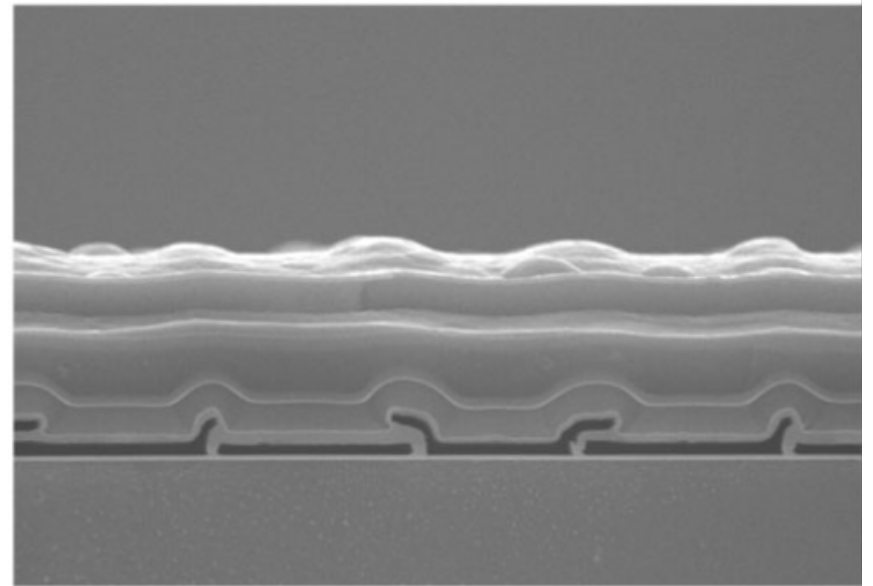
Fig. 6-11, p. 206







(a)



(b)

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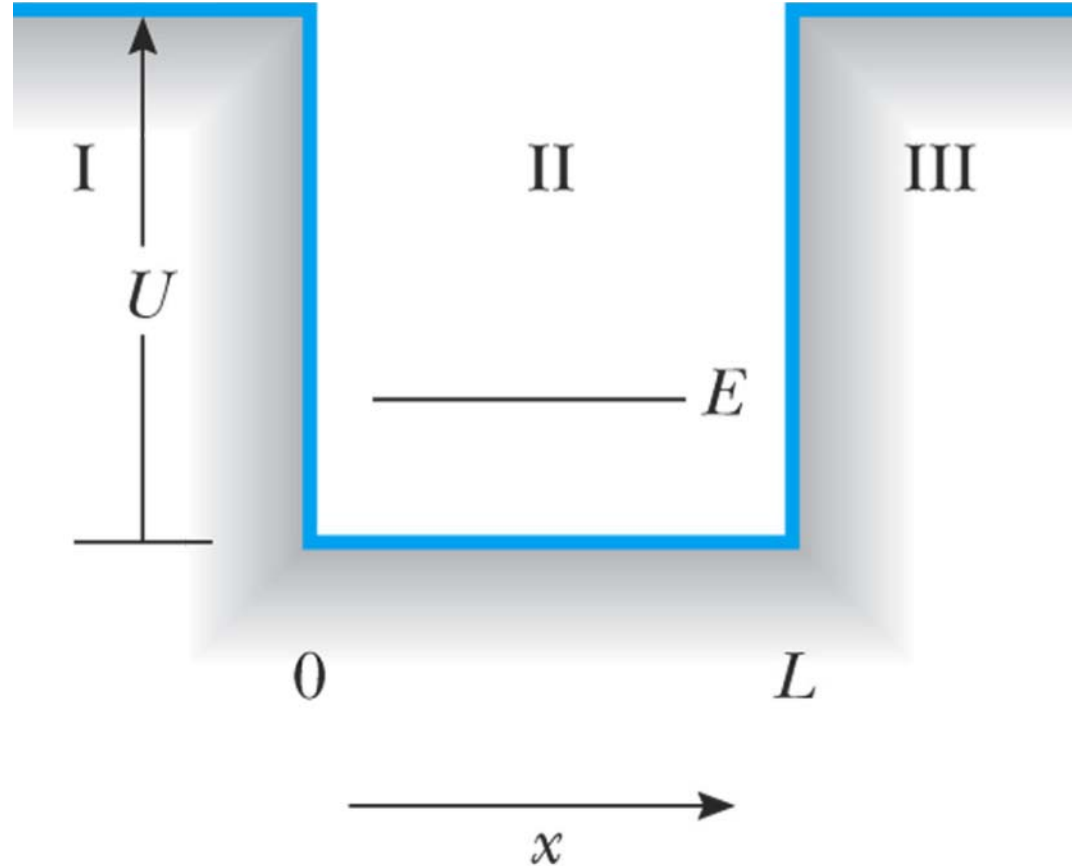
Fig. 6-13, p. 208



Seoul National University

NRL HoloTech

Finite Potential Well

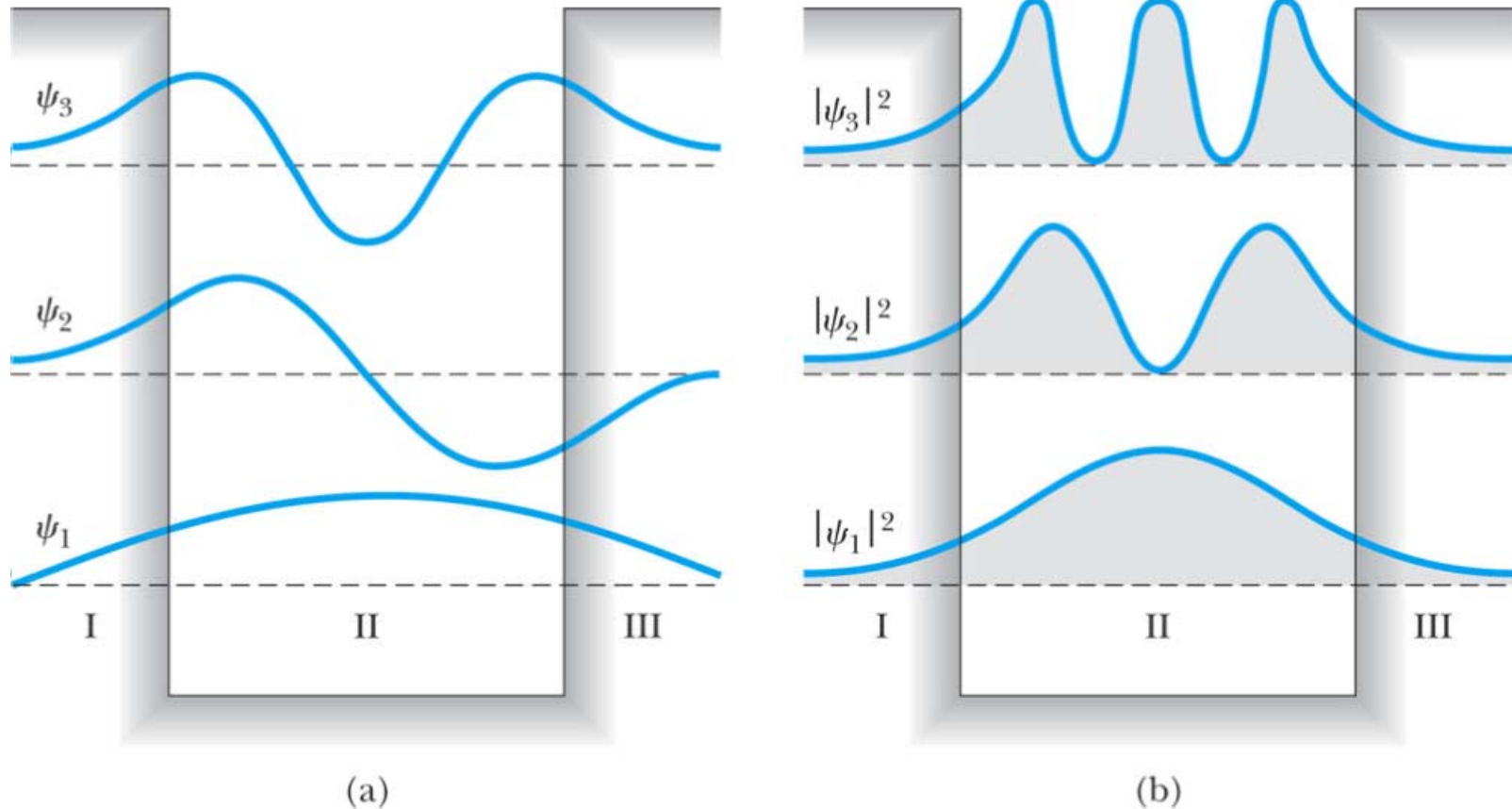


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Fig. 6-15, p. 209



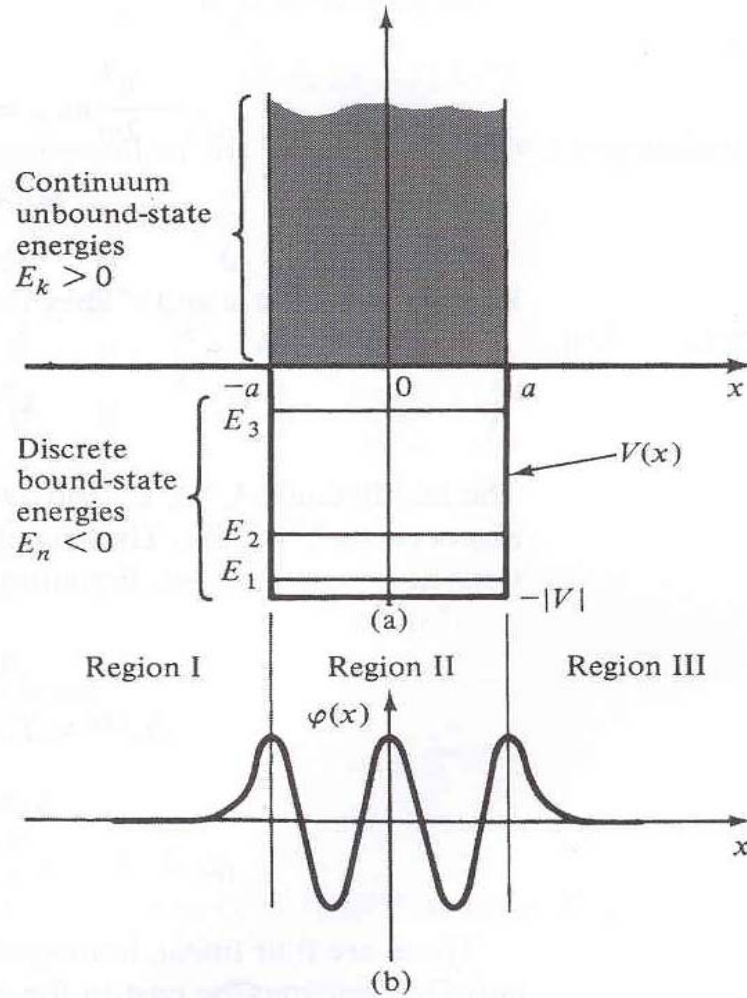
Finite Potential Well

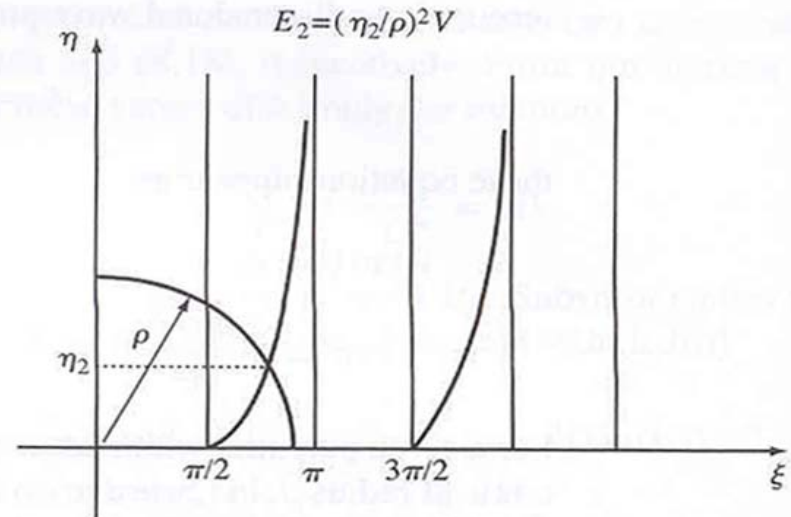
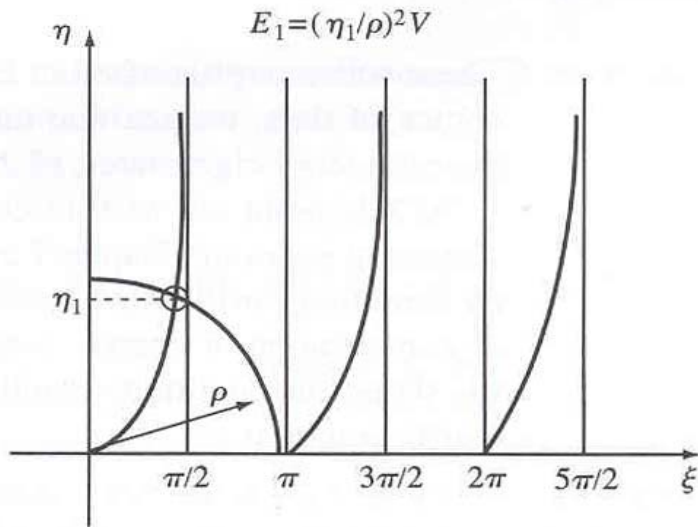


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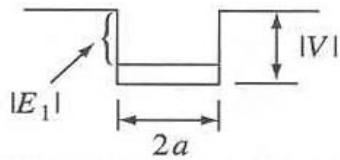
Fig. 6-16, p. 210



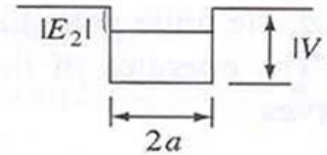




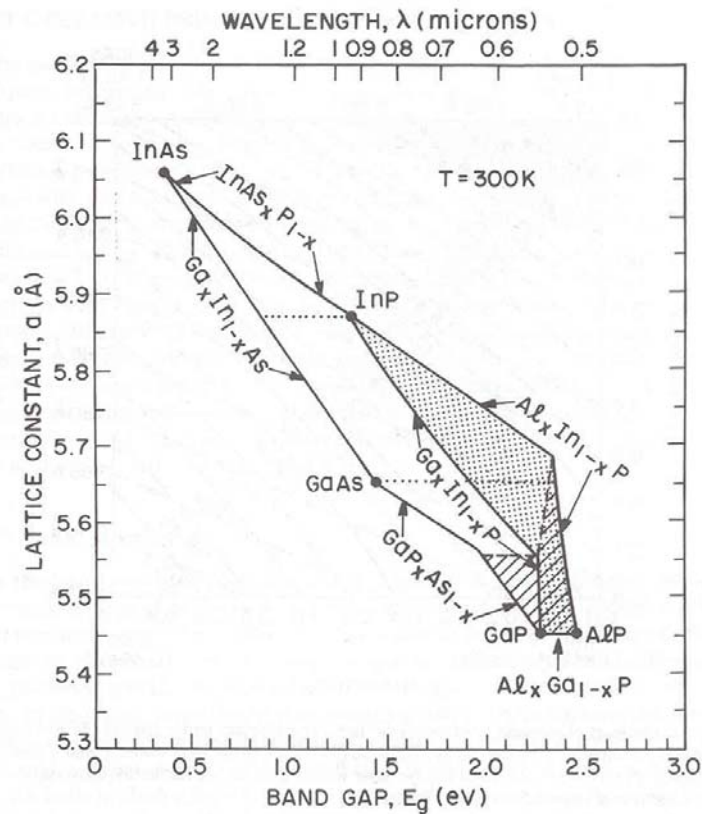
$$\rho^2 \equiv 2ma^2|V|/\hbar^2$$



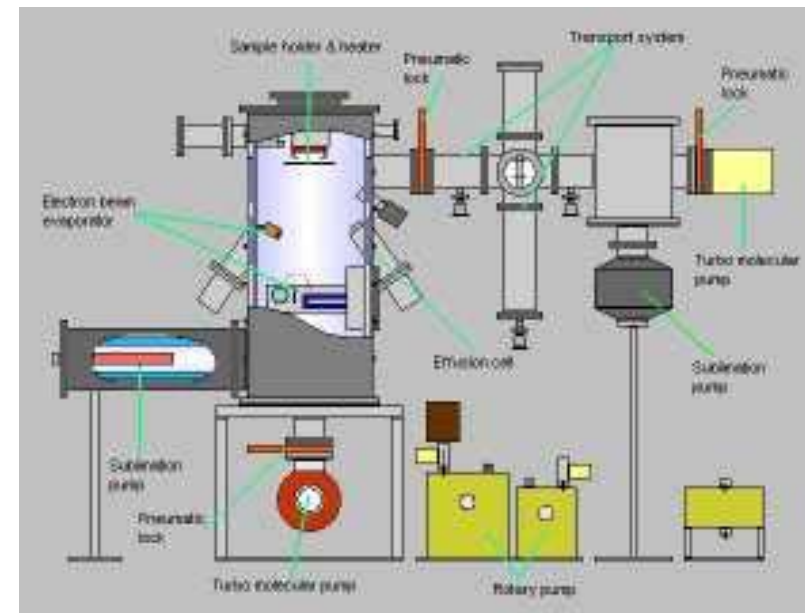
$$\rho^2 \equiv 2ma^2|V|/\hbar^2$$



Bandgap Engineering



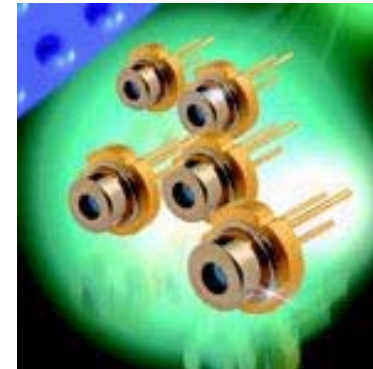
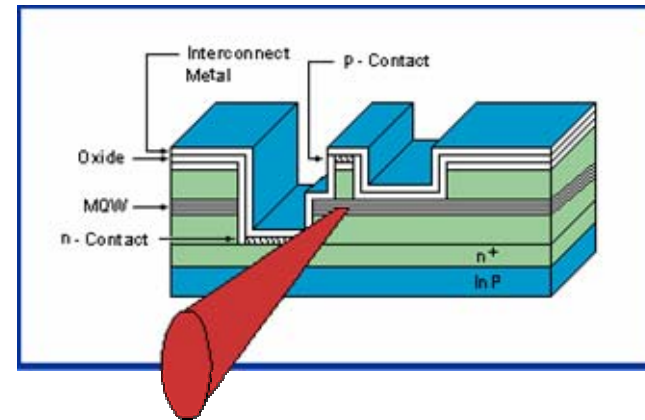
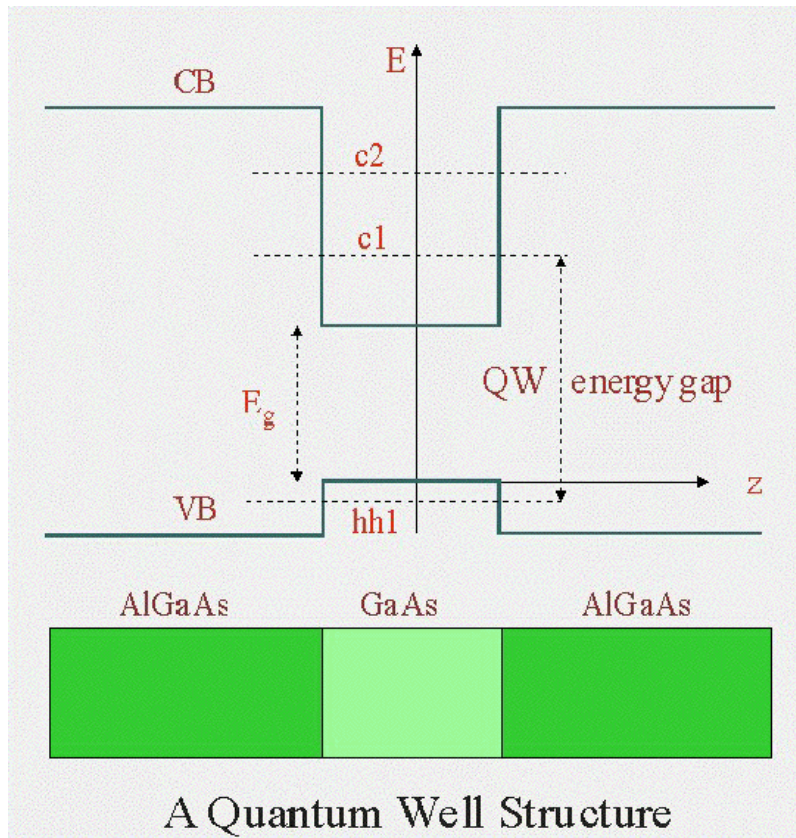
MBE (Molecular Beam Epitaxy)



http://people.deas.harvard.edu/~jones/ap216/images/bandgap_engineering/bandgap_engineering.html



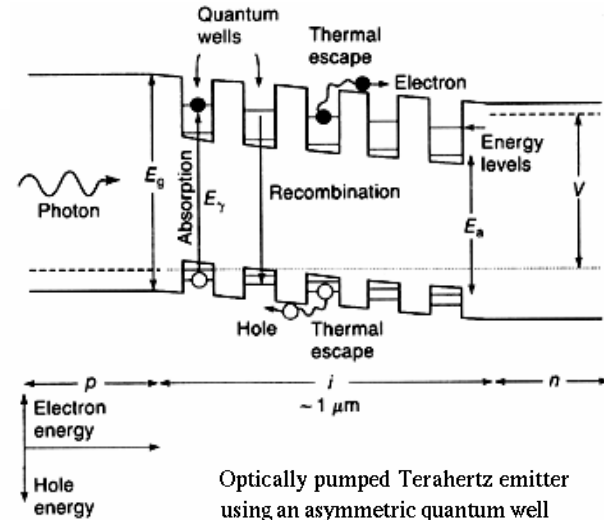
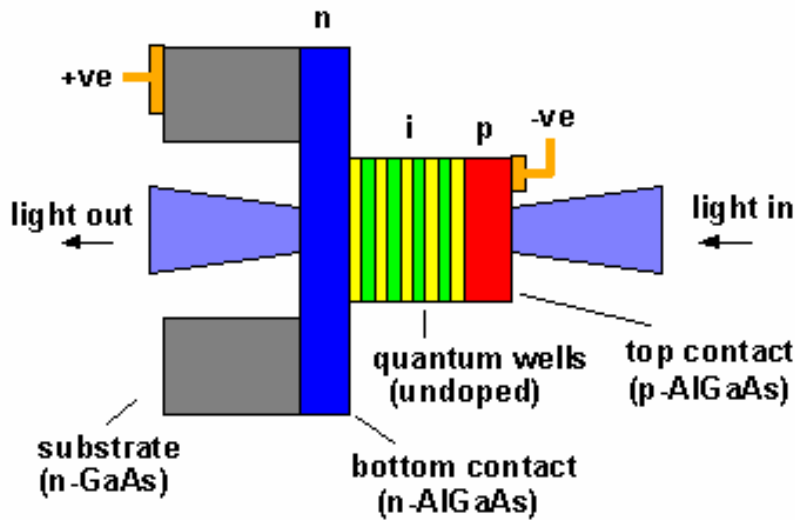
Quantum Well Devices



Multiple quantum well lasers

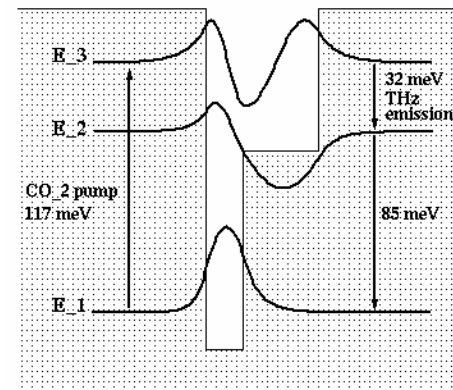


Quantum Well Devices

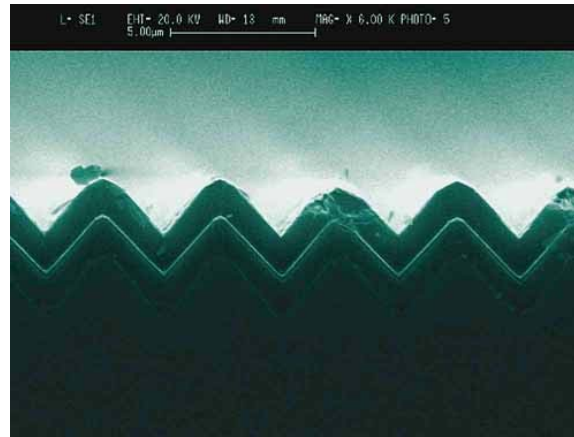
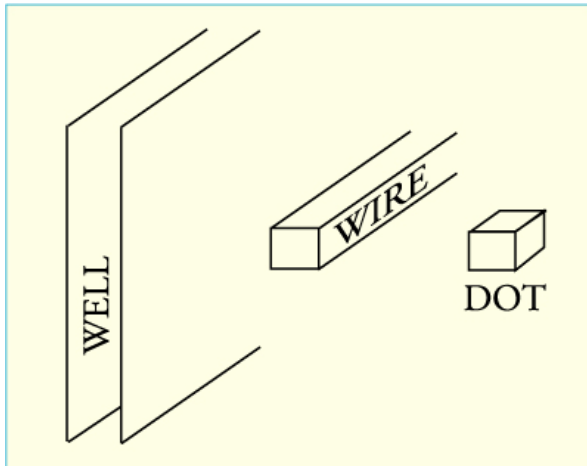


Optically pumped Terahertz emitter using an asymmetric quantum well

This diagram shows the wavefunctions of the electrons at the bottom of each of the three subbands in the well, with the zero amplitude of each wavefunction at the sub-band energy level.

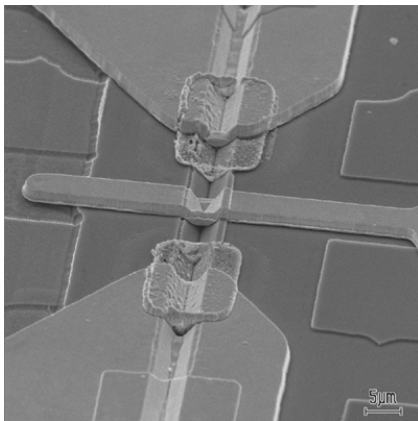


More Quantum – Quantum Wires and Quantum Dots



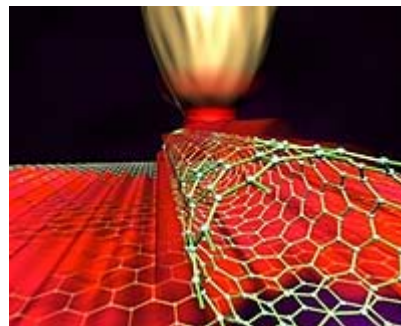
Quantum wire laser operating through the eye of a needle

<http://wwwrphysse.anu.edu.au/admin/pgbrochure/nano.html>

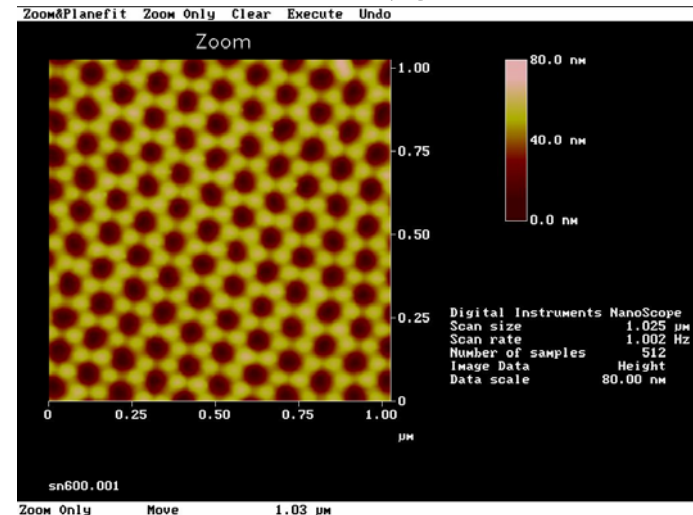


V-groove quantum wire field effect transistor

http://www.shef.ac.uk/eee/research/smd/research/quantum_fet.html



Carbon nanotube



Average pore diameter is 52 nm.

<http://www.people.vcu.edu/~sbandy/project1.html>

