

Solutions to paper 4B5 – Nanotechnology. 2007

Short answers:

2(a) well is 0.499 eV deep.

(b) Ground state energy = 0.025 eV.

(c) 1.085 nm

3 (b) 0.82×10^{-18} F. 0.097 eV charging energy.

4(b) 0.033 eV.

5(c) factor of 78. Decay length = 0.45 Angstroms.