Phonon confinement and excitonic absorption in the optical properties of ZnO films

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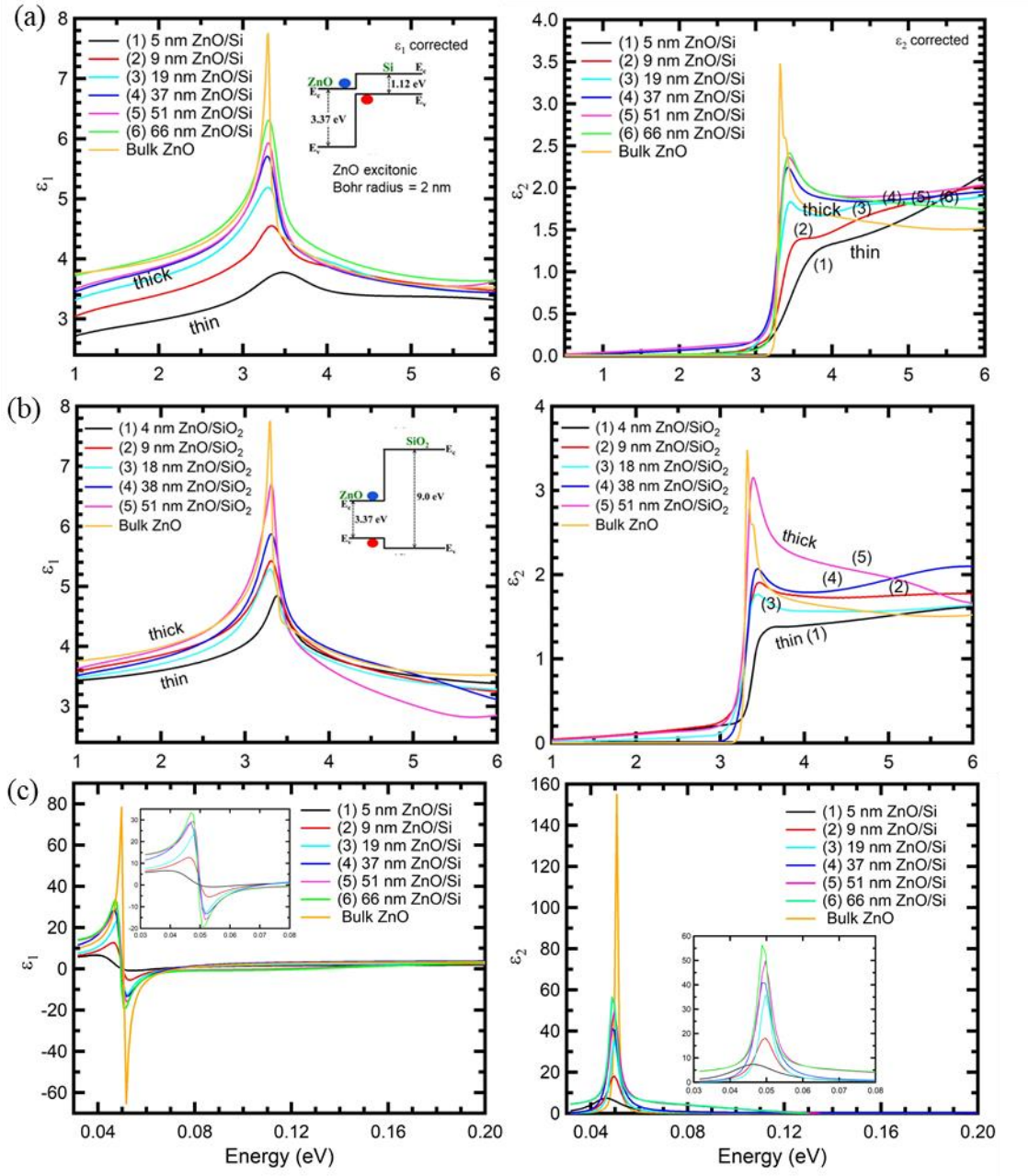

Fig: Real (ε_1) and imaginary part (ε_2) of the dielectric function vs film thickness of ZnO films on (a) Si (b) SiO_2 substrates vs photon energy (1 – 6 eV) at 300K. (c) ε_1 and ε_2 vs film thickness of ZnO films on Si substrates vs photon energy (0.03 – 0.20 eV).