

Computational Microelectronics

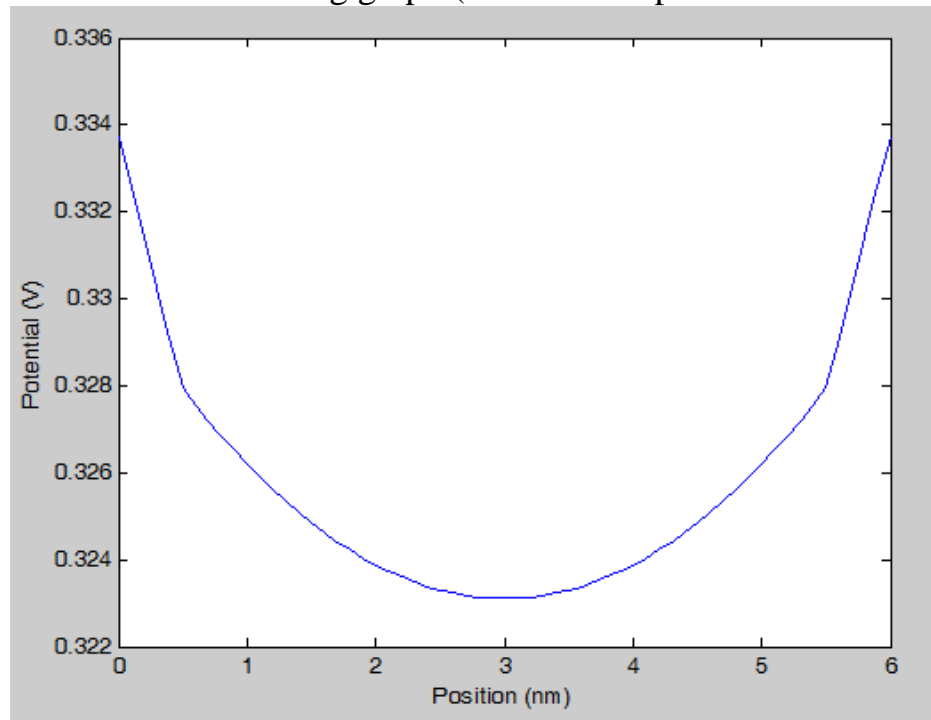
Assignment #4

20174009

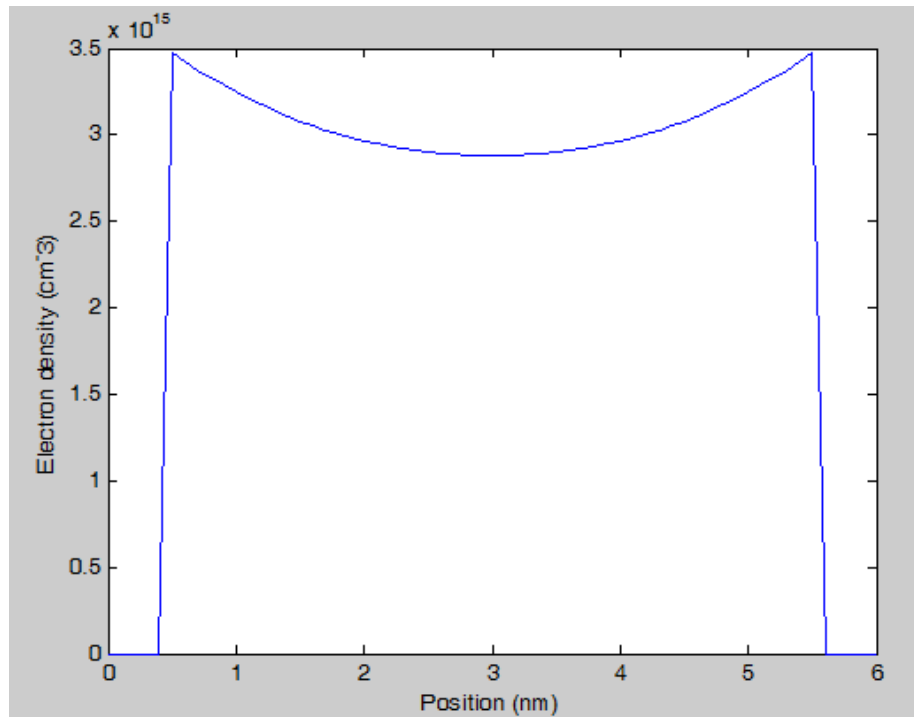
Choi Pyeunghwi

1. Potential of Double-gate MOS

By using Poisson's equation, position dependent potential in double-gate MOS would be as following graph (electrostatic potential = 0.33374 V)

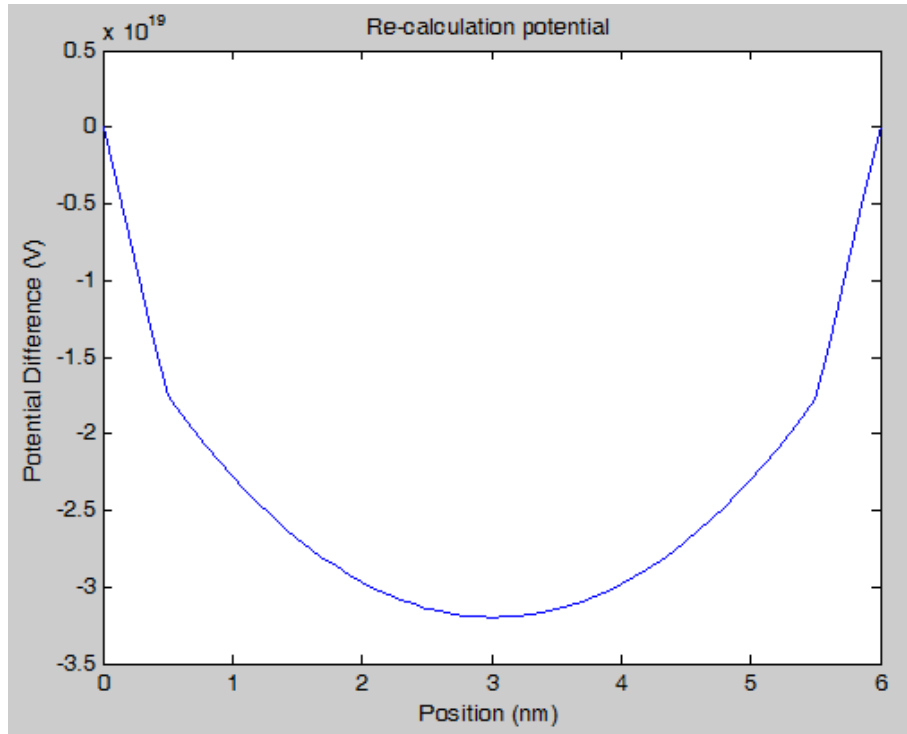


2. Electron density



3. Re-calculation potential (up-dated potential)

$$\rho(n) = -qn(x) - qN_{acc}$$



4. Potential difference between numerical calculation potential and re-calculation potential at several gate voltages

