2.8. Resonant Tunneling

2.8a. Consider the T(E) for a 1D conductor with (A) one scatterer and (B) with many scatterers, calculated from a coherent NEGF model

(a) A equals B times the number of scatterers

(b) A and B both have sharp random peaks in energy

(c) B looks smooth, A has sharp random peaks in energy

(d) A and B both look smooth

(e) A is a smooth function, B has sharp random peaks in energy

2.8b. The interaction with the surroundings, such as thermal scattering in the channel, are taken into account in the NEGF method by

a) $\Sigma_1, \Sigma_2$

b) $\Gamma_1, \Gamma_2$

c) $\Sigma_1^{in}, \Sigma_2^{in}$

d) $\Gamma_1^{in}, \Gamma_2^{in}$

e) None of the above