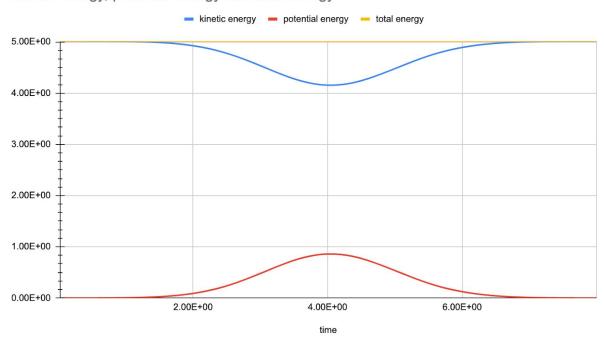
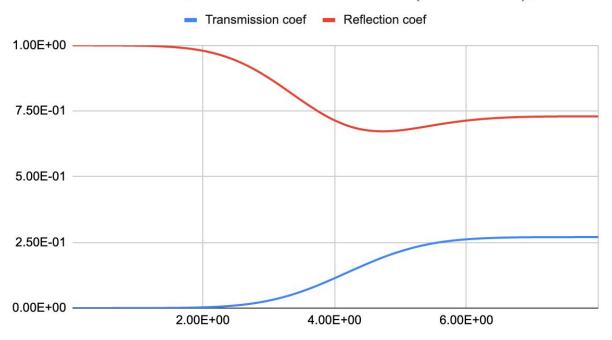
- 1. (see separate document)
- 2. Code (see separate document)
- (a) Plot of kinetic energy, potential energy, and total energy vs time (in atomic unit)

kinetic energy, potential energy and total energy



(b) Plot of Transmission coefficient T(t) and Reflection coefficient R(t) as a function of time,

## Transmission coef, Reflection coef vs time (atomic unit),



And reported final values: (values at final time step)

 $T(t_final) = 2.701812e-01$ R(t\_final) = 7.297376e-01