

化數小考三 (2019/11/01)

1. For the 1-D quantum harmonic oscillator, prove $\psi_0 = e^{-cx^2}$ is a solution to the Schrödinger equation. What is the energy eigenvalue (zero-point energy)? (60%) For H_2 molecule, the vibrational frequency is 4400 cm^{-1} what is the vibrational zero-point energy (in kcal/mol)? (40%)