

Recitation #10
Quantum 522

1. Find the maximum partial wave ℓ for a 100 MeV kinetic energy neutron incident on a nucleus of atomic number A .
2. Find the $\ell = 0$ phase shift for scattering off of a spherical well of depth V_0 and radius a . Give your answer in terms of the wave numbers k' for $r < a$ and k for $r > a$.