

Assignments

Write the answer of all these Question:

- ① (a) Write the different properties of nuclear forces.
(b) Discuss the ground state of Deuteron. obtain and plot the wave function for the deuteron ground state taken as an S-state.
 - ② (a) Write the conclusions of n-p and p-p scattering at low energies.
(b) Discuss in detail the Meson's theory of nuclear forces.
 - ③ (a) Discuss the basic concept of Liquid drop model and write the different analogies hold between a small drop of a liquid and the nucleus.
(b) Write the different evidences in support of shell model. Explain the salient features of single particle shell model and formation of discrete energy states and shells by the nucleons. Discuss the limitations and failure of the single particle shell model
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