

Physics 1214 - General Physics II

Quiz #28 - 2013.04.22

Solutions

1. The Bohr model for the hydrogen atom required only a single quantum number n to describe the wave function of the atom. What two other values are needed when describing an atom as a wave function which is a solution to the Schrödinger Equation?

In addition to n , we need the angular momentum quantum number l and the magnetic quantum number m_l .

2. State the Pauli exclusion principle.

The Pauli exclusion principle states that no two electrons in an atom can occupy the same quantum-mechanical state.