

Test: Atom. Atomic Models. Quantum Mechanics. Quantum Mechanic Model



The Quantum Mechanical Model of the Atom



All matter is made up of

The centre of the atom is called

The nucleus is made up of particles called _____ and _____

Protons have 1.6×10^{-19} C charge

Neutrons have no charge

Nucleus has a charge

Electrons have a charge

The atomic number of an atom is the

The mass number equals the

and n, l, m, s are the four quantum numbers.

is the science dealing with the behaviour of matter and light on the atomic and subatomic scale. It attempts to describe and account for the properties of molecules and atoms and their constituents—electrons, protons, neutrons.

and **Schrödinger** are considered the fathers of the quantum mechanics

The three scientists that laid the foundation of the quantum mechanical model are

and

In **Louis de Broglie** proposed that electrons have wave and particle properties

In 1926 **Heisenberg** suggested that it is not possible to determine the position and the momentum of a particle with absolute precision. This is called the

In 1927, Erwin Schrödinger established a model of the atom that describes the probable location of electrons. The Schrödinger model assumes that the electron is a wave and tries to describe the regions in space, or orbitals, where electrons are most likely to be found.