



The Atom

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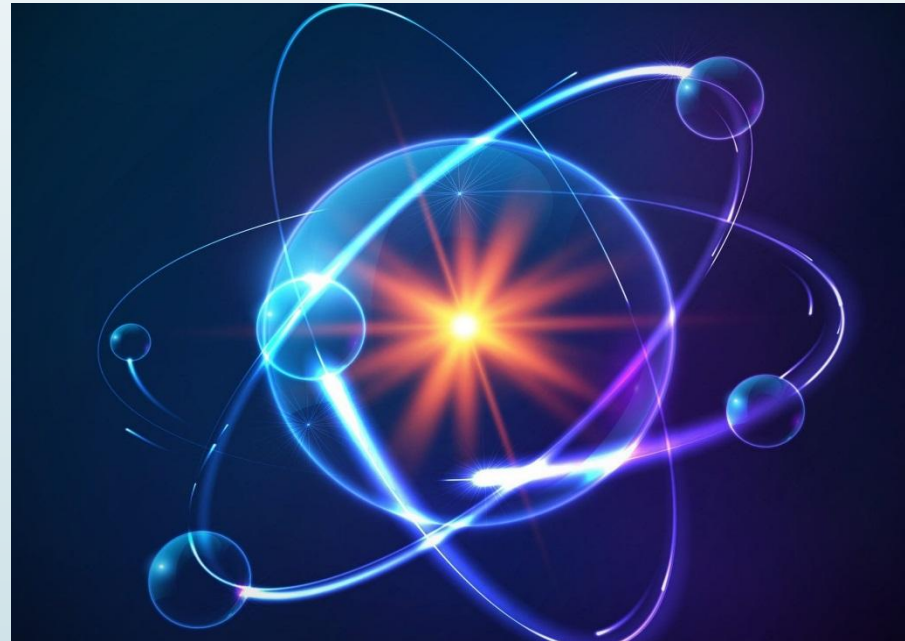
Molecules



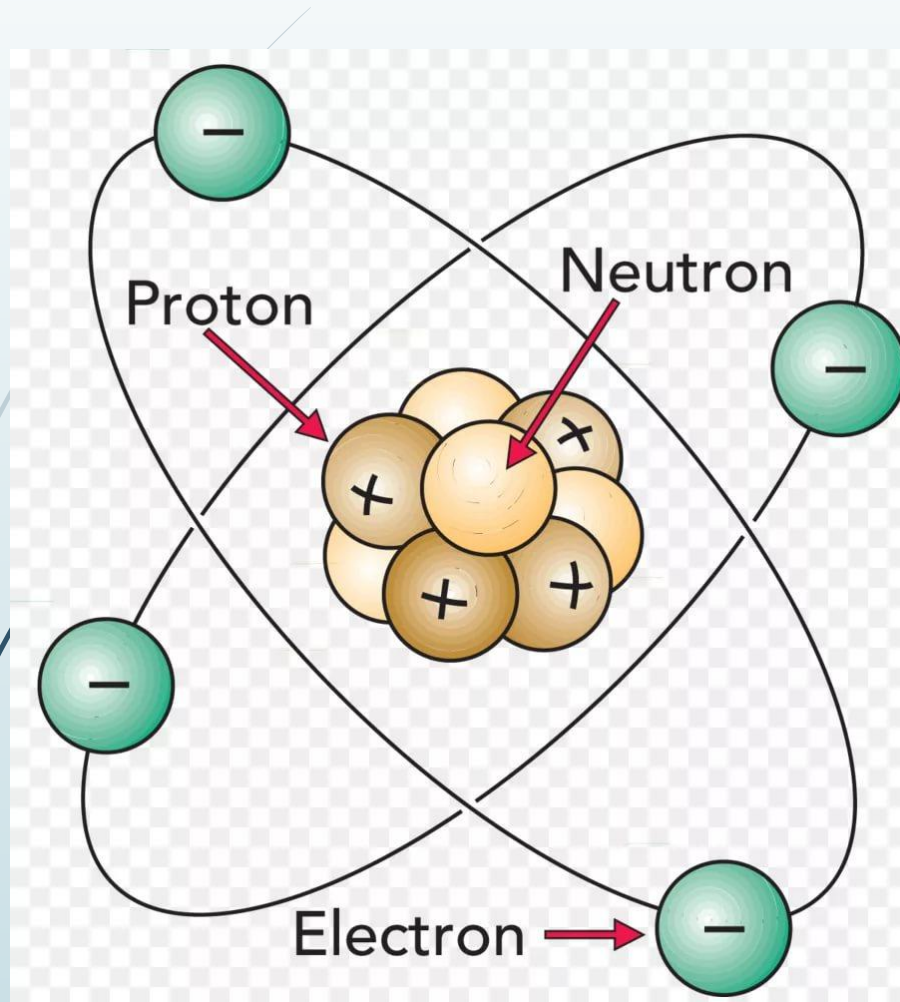
- At present the electron theory explains the nature of electricity. According to the modern theory all matter is made up of small particles that are called molecules. Each molecule is made up of atoms.

Atom

- Every atom is like a very small solar system. Most of the mass of the solar system is concentrated in the sun. In an atom most of the mass is concentrated in a central part which is called nucleus.



Nucleus



- The nucleus is built up of neutrons and protons. Neutrons have zero electric charge. Protons are positively charged. Therefore the nucleus carries a positive charge.
- Normally it is electrically neutral. The negative charge of electrons balances the positive charge of the nucleus. As an atom has equal amounts of negative and positive charges, it produces no electrical effects. If the number of negative charges is not equal to the number of positive charges, the matter produces electrical effects.
- There is a special energy in the nucleus. It holds protons and neutrons together. This energy is called the binding energy of the nucleus. These binding energies are very great. They can be determined by different ways : by Einstein's relation between mass and energy, by measuring the energy in nuclear transformations.



Thanks For Watching!