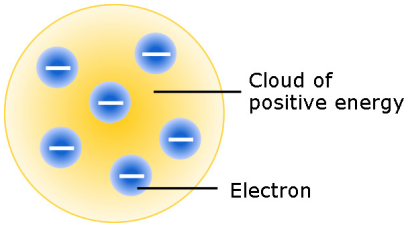
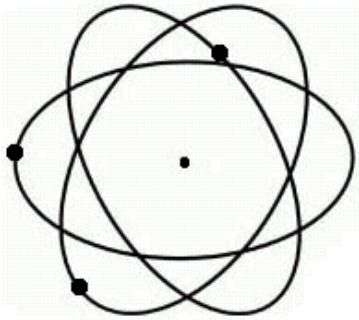
Six types of atomic model

About these models:

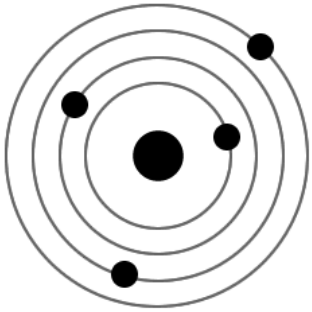
- Early atomic theory depicted atoms as spheres or balls (6).
- This concept was refined when Thomson discovered the electron and in 1904 developed a ‘plum pudding’ model (1).
- With Rutherford’s discovery in 1911 that atoms are almost all space, and have a dense nucleus, came the ‘solar system’ model (3).
- This was soon refined in 1913 by Neils Bohr who proposed a model with a central nucleus surrounded by orbiting electrons (modified three years later by Sommerfield who specified elliptical orbits) (2).
- Quantum mechanics generated ever more abstract models, replacing the idea of electrons in fixed orbits by that of a probability distribution around the nucleus (4).
- Another way of representing an atom is by its relationship to the periodic table (5).



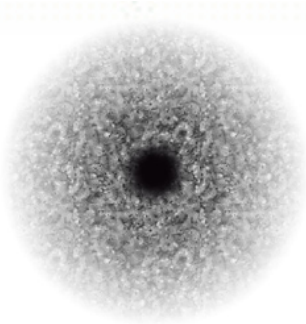
1. 'Plum Pudding' model



2. Orbits model (Bohr's model)



3. Solar system model



4. Electron cloud model

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C

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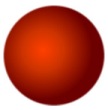
5. Periodic table representation (model represented here is the carbon atom)



6. Ball model (old Greek)