

ATOMIC PHYSICS

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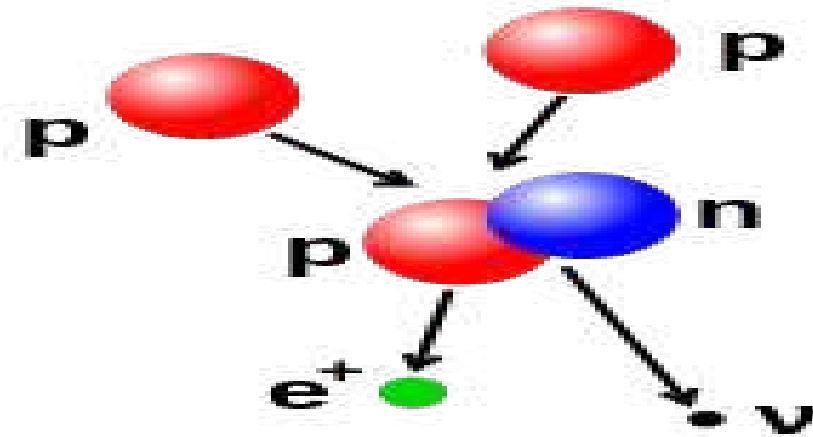
Structure of an ATOM

- Smallest Particle
- Size - $> 10^{-10}\text{m}$
- J.J Thompson
- Neils Bohr
- Rutherford

ATOM

- **Atoms** consist of three basic particles.
- protons - Positive Charge
- Electrons – Negative Charge
- neutrons – Neutral Charge

p-> Proton
e-> Electron
n-> neutron



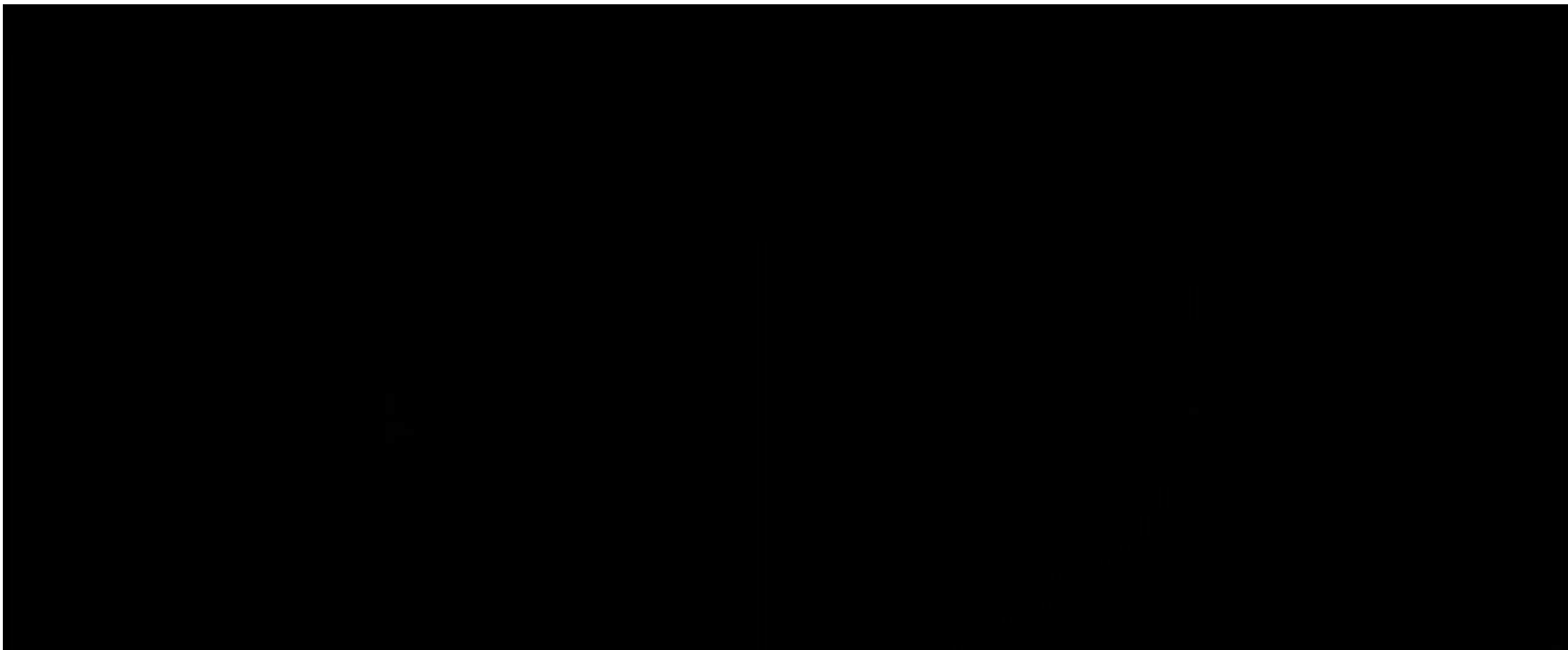
A 3D isometric rendering of the periodic table of elements. The elements are represented as colored blocks arranged in their characteristic periodic layout. The colors vary by group: Group 1 and 2 are green; Groups 13-18 are yellow and orange; Groups 3-10 are grey; and the lanthanide and actinide series at the bottom are purple. The elements are labeled with their chemical symbols (e.g., H, He, Li, Be, etc.).

Bohr Atom Model

- Year -> 1913
- Two Postulates
- Energy Formula
- Radius of the Orbit
- Photon Frequency

Energy diagram

- For Hydrogen atom,
 - Lyman series
 - Balmer series
 - Paschen series
 - Brackett series
 - Pfund series



Energy levels around the Nucleus

- K – Shell
- L – Shell
- M – Shell
- N - Shell

THANK YOU