

LECTURE 2
STRUCTURE OF THE ATOM: A CONUNDRUM

I. E. Rutherford, 1911

- A. Discovery of the Nucleus
- B. Backscattering experiment

II. Classical Description of Atom

- A. Coulombic interaction
- B. Classical equation of motion: Newton's Second Law

III. Wave-Particle Duality of Matter and Radiation

- A. Wave Nature of Light
- B. Electromagnetic Radiation – periodic variation of an electromagnetic field