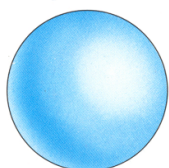


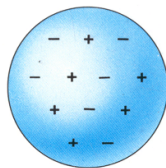
Nuclear Chemistry

Fission, Fusion & Decay

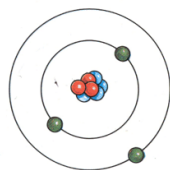
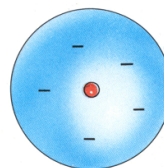
A Summary

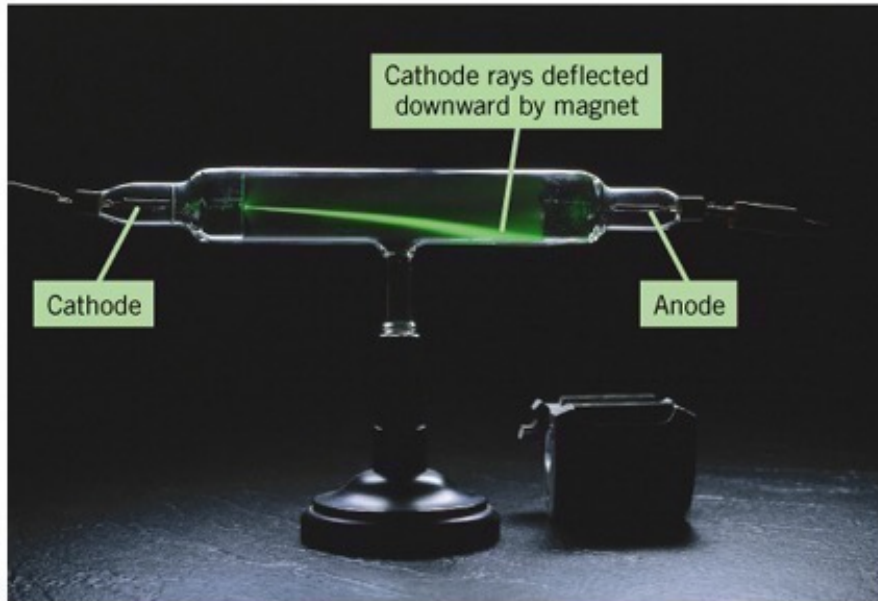


John Dalton
Studied Gases
Nature of Atoms
Billiard Ball Model



JJ Thomson
Cathode Ray Tube
Electron
Plum Pudding Model



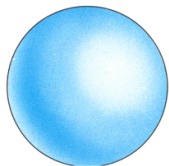


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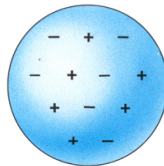
Fission, Fusion & Decay

A Summary

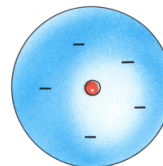
Robert Millikan
Oil Drop Experiment
Charge of Electron



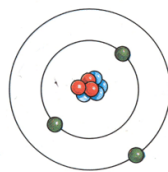
John Dalton
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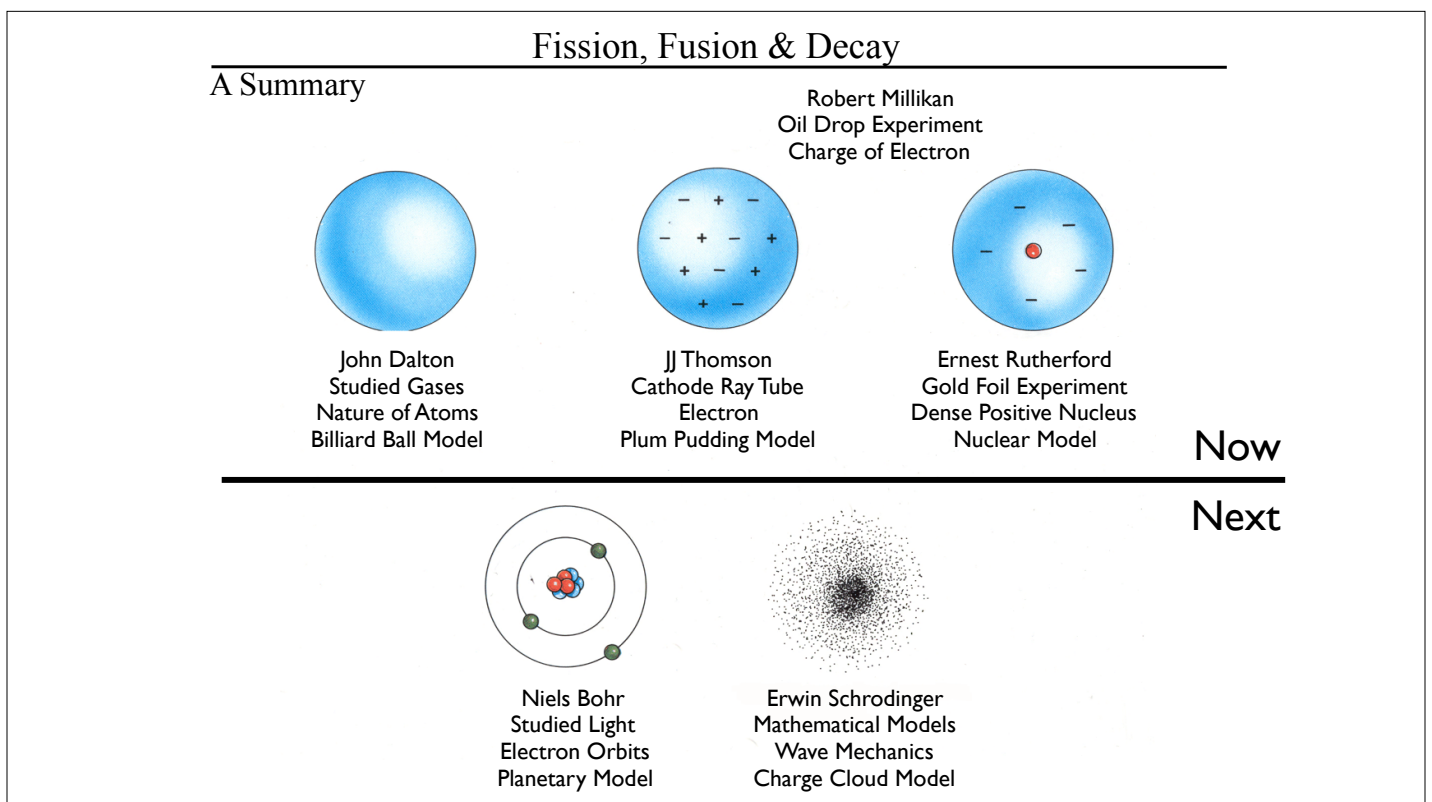
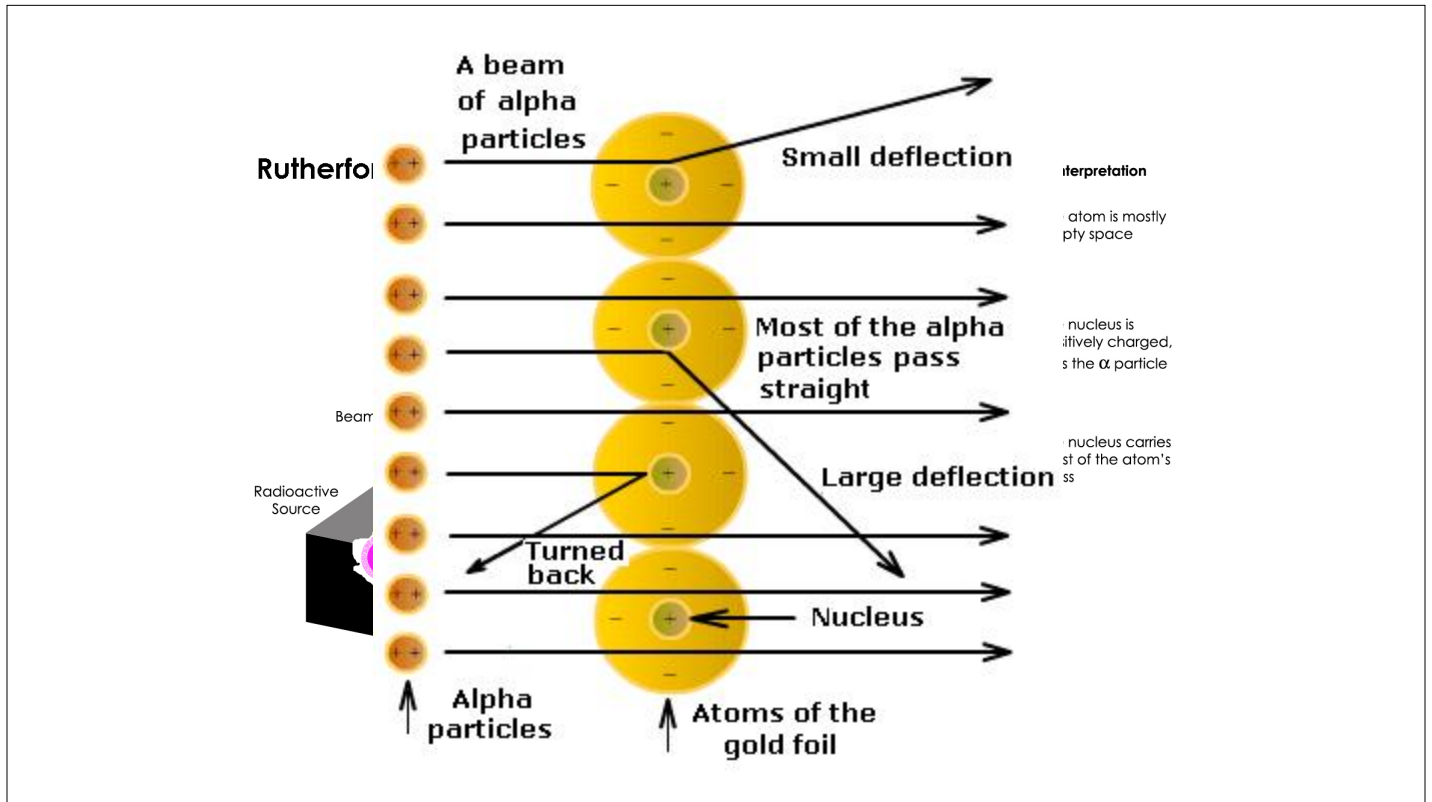


JJ Thomson
Cathode Ray Tube
Electron
Plum Pudding Model



Ernest Rutherford
Gold Foil Experiment
Dense Positive Nucleus
Nuclear Model

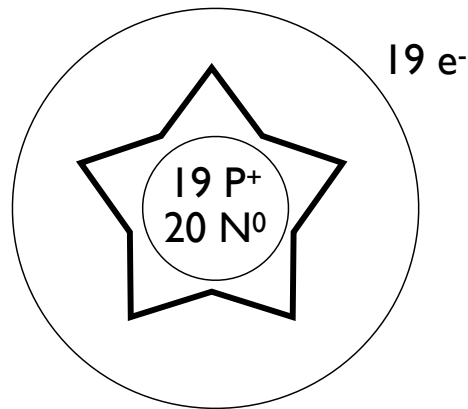




Fission, Fusion & Decay

The “Problem” of the Nucleus

Strong Nuclear Force - the force of attraction that holds the nucleus together against the repulsion of the protons



Fission, Fusion & Decay

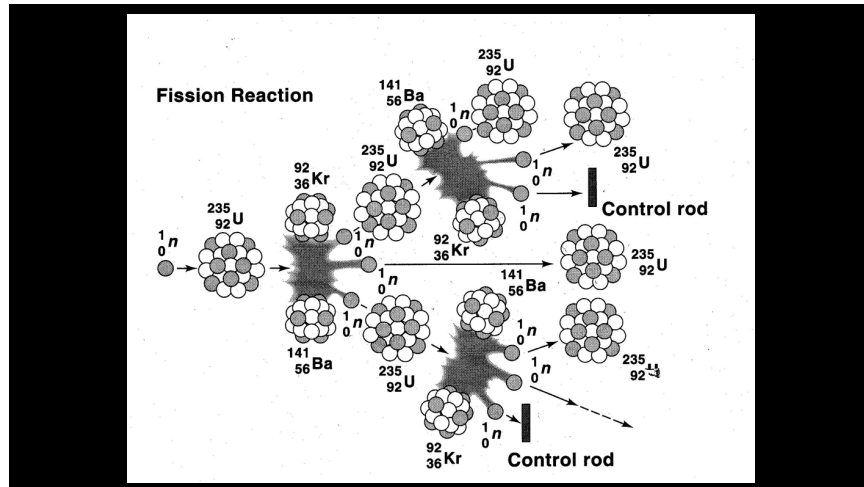
Overview

- 2 types of nuclear changes
 - High Energy
 - Fission
 - Fusion
 - Low Energy
 - Radioactive Decay
 - Alpha
 - Beta
 - Gamma

Fission, Fusion & Decay

High Energy Nuclear Changes

- Fission - splitting of atomic nuclei into 2 approx. equal parts
 - Makes big atoms smaller
 - Nuclear Power Plants
 - Nuclear Weapons



Fission, Fusion & Decay

High Energy Nuclear Changes

- Fusion - nuclear reaction in which small nuclei fuse together to form larger ones
 - Our sun and other stars
 - Hydrogen bombs
 - The process which created all the atoms we see today

Fusion Reaction

