

Chapter 4: Atoms and elements

Thursday, September 04, 2008
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Laws: constant composition and conservation of matter
(1700s)

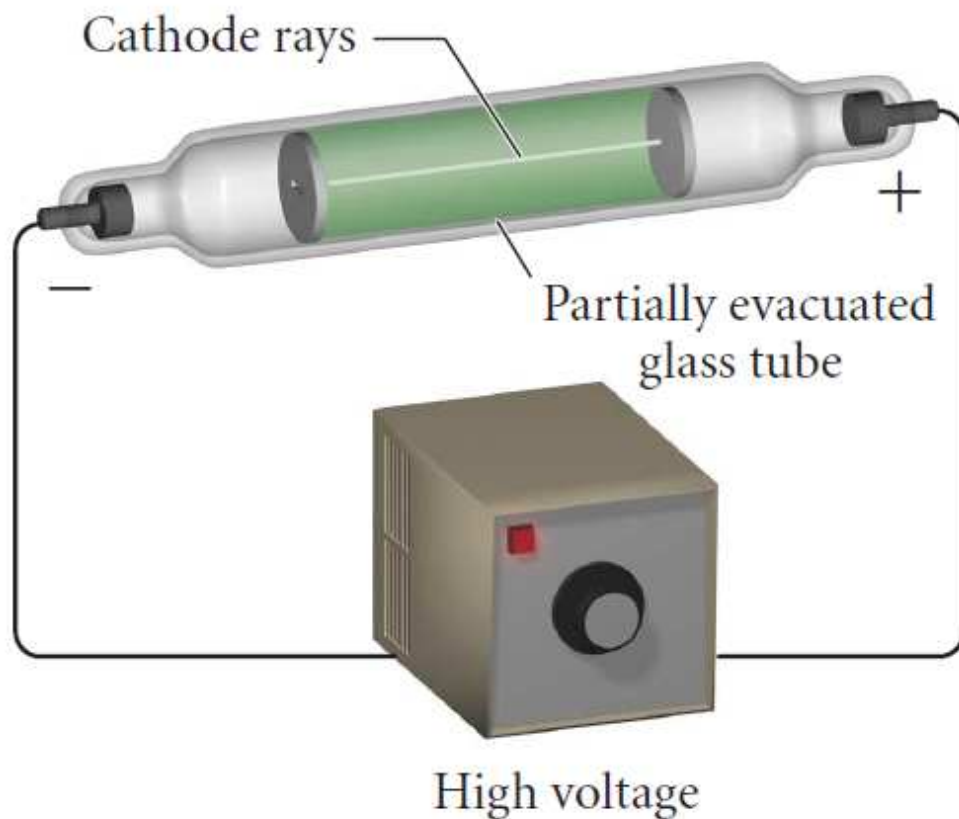
↳ *compounds have fixed ratio of elements*

Dalton's atomic theory: (early 1800s)

- Matter is made of indestructible atoms
- Atoms of one element are the same
- Atoms combine in simple ratios to make compounds

Discovery of the electron: (J. J. Thomson, late 1800s)

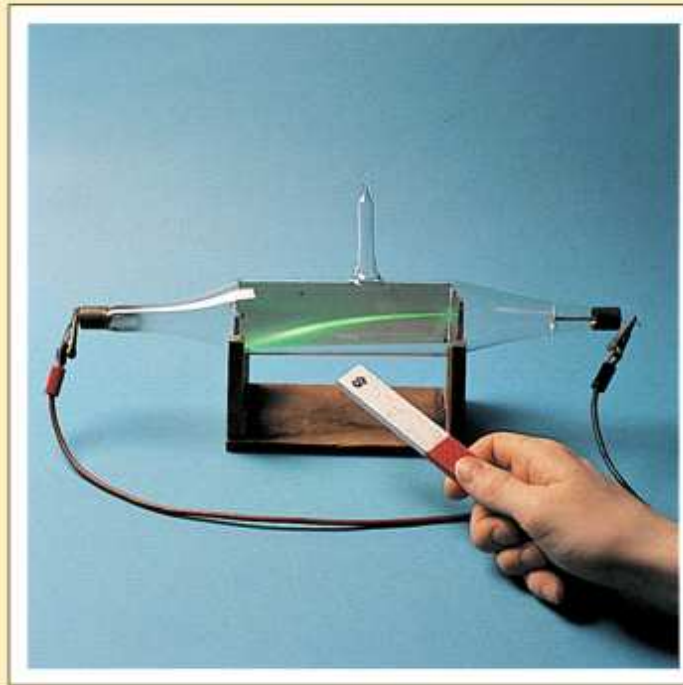
- Cathode ray tube (beam of electrons)



Electrons

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Figure 2.5: The Beam of Negative Particles Bends Downward



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Electrons are:

- the same no matter which substance they come from.
- particles that are smaller than atoms.
- negatively charged.

Plum pudding model

of atom

