

STEM Seminar
@ UNass

Sat. Feb 2 2013

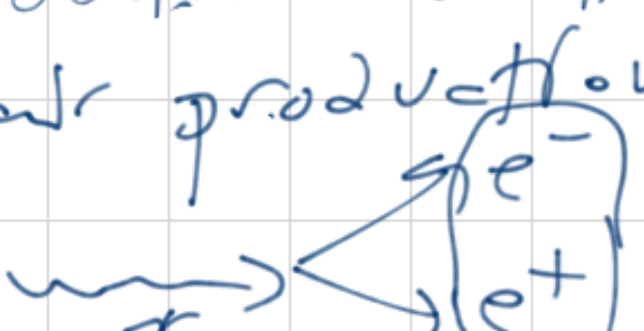
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Ionizing radiation

→ radiation that ionizes the material through which it travels

→ 3 ways photons interact w/ electrons:

- 1) photoelectric effect
 - 2) Compton scatter
 - 3) pair production
- 
- The diagram shows a wavy arrow representing a photon moving from left to right. It splits into two particles: an electron (e^-) and a positron (e^+).

↓
 $E = mc^2$

^{222}Rn (radon)

→ gas

→ emanate by radium-226

→ in the U-238
decay chain
($\sim 1\text{ppm}$)

→ typical $\sim 10\text{ Bq/m}^3$

→ $1\text{ pCi/liter} = 37\text{ Bq/m}^3$?