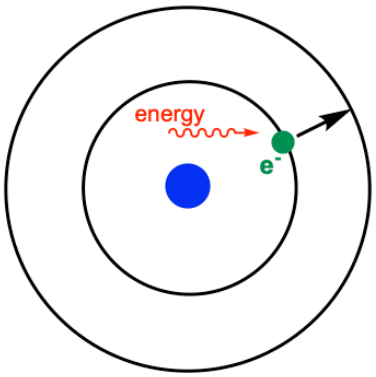
CONCEPT: GAMMA EMISSION

Gamma Radiation is related to the electromagnetic spectrum. Gamma rays have the highest energy and therefore they have _____ wavelength and _____ frequency.

A gamma particle can be represented by _____.

- It causes no change in the atomic mass or atomic number and usually happens with alpha or beta decay.
- Gamma particles have the _____ ionizing power.
- Gamma particles have the _____ penetrating power so thick layers of lead shielding are needed.



EXAMPLE: Which of the following represents an element that has experienced a gamma emission?

a. Cl: $1s^2 2s^2 2p^6 3s^2 3p^5$

b. Be: $1s^2 2s^2$

c. Na: $1s^2 2s^2 2p^6 3p^1$

d. N: $1s^2 2s^2 2p^3$