Chemistry 115 Name

Dr. Cary Willard

Quiz 8a (20 points) May 8, 2013

1. (3 points)Write the symbol for an alpha particle, a beta particle, and a gamma ray. Be sure to include both the atomic number and the mass number.

Alpha particle

Beta particle

Gamma ray $$

1. (3 points) Write the nuclear equation for the alpha decay of $$
2. (3 points) Write the nuclear equation for the beta decay of$$
3. (4 points) Complete and balance the nuclear equation below by supplying the missing particle(s):

$$\rightarrow $$

1. (4 points) Strontium-90 has a half life of 28 years. If a sample was tested in 2013 and found to have a mass of 480 mg, in what year would the same sample have a mass of 30 mg?
2. (3 points) Clearly distinguish between fusion and fission?

Chemistry 115 Name

Dr. Cary Willard

Quiz 8b (20 points) May 8, 2013

1. (3 points)Write the symbol for an alpha particle, a beta particle, and a gamma ray. Be sure to include both the atomic number and the mass number.

Alpha particle

Beta particle

Gamma ray

1. (3 points) Write the nuclear equation for the alpha decay of $$
2. (3 points) Write the nuclear equation for the beta decay of $$
3. (4 points) Complete and balance the nuclear equation below by supplying the missing particle(s):

$$\rightarrow $$

1. (4 points) Strontium-90 has a half life of 28 years. If a sample was tested in 2013 and found to have a mass of 240 mg, in what year would the same sample have a mass of 30 mg?
2. (3 points) Clearly distinguish between fusion and fission?