Chemistry
Nuclear Chemistry

Name_____

Nuclear Equations

Directions: Complete the following nuclear equations and list the type of decay (alpha, α, beta, β, or gamma, γ) to the right of the equation.

Type of Decay

1. $^{214}_{84}Po \rightarrow ^{210}_{82}Pb + $ _____ _____
2. $^{222}_{86}Rn \rightarrow$ _____ $+ ^{4}_{2}He$ _____
3. $^{230}_{90}Th \rightarrow ^{226}_{88}Ra +$ _____ _____
4. $^{214}_{82}Pb \rightarrow$ _____ $+ ^{0}_{-1}e$ _____
5. $^{226}_{88}Ra \rightarrow$ _____ $+ ^{4}_{2}He$ _____
6. $^{239}_{93}Np \rightarrow$ _____ $+ ^{0}_{-1}\beta$ _____
7. _____ $\rightarrow ^{234}_{90}Th + ^{4}_{2}He$ _____
8. $^{234}_{92}U \rightarrow ^{234}_{93}Np +$ _____ _____
9. $^{206}_{82}Pb + ^{4}_{2}He \rightarrow$ _____ _____
10. $^{254}_{91}Pa \rightarrow$ _____ $+ ^{0}_{-1}e$ _____
11. $^{226}_{88}Ra \rightarrow$ _____ $+ ^{4}_{2}He$ + gamma rays _____
12. $^{214}_{82}Pb \rightarrow$ _____ $+ ^{0}_{-1}e + ^{0}_{0}\gamma$ _____

LIVEWORKSHEETS

NUCLEAR EQUATIONS WORKSHEET

1. Write a nuclear equation for the alpha decay of $^{231}_{91}Pa$.

2. Write a nuclear equation for the beta decay of $^{223}_{87}Fr$.

3. Write a nuclear equation for the alpha decay of $^{149}_{62}Sm$.

4. Write a nuclear equation for the beta decay of $^{165}_{61}Pm$.

5. Write a nuclear equation for the alpha decay of $^{249}_{101}Md$.

6. Write a nuclear equation for the alpha decay of $^{146}_{62}Sm$.

7. Write a nuclear equation for the beta decay of $^{198}_{85}At$.

8. Write a nuclear equation for the alpha decay of $^{150}_{64}Gd$.

9. Write a nuclear equation for the beta decay of $^{152}_{54}Xe$.

10. Write a nuclear equation for the beta decay of $^{120}_{55}Cs$.

LIVEWORKSHEETS