

LESSON 3

TOPIC : NUCLEAR REACTION

NUCLEAR REACTION EQUATION



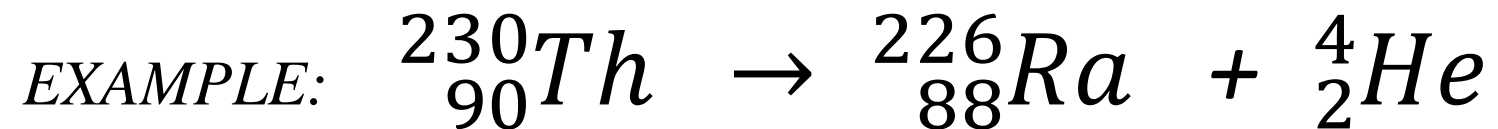
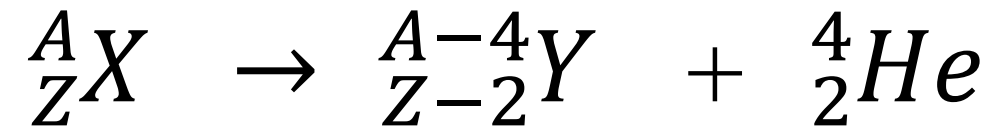
PRINCIPLE OF BALANCING NUCLEAR REACTION

THE RULES:

- 1. CONSERVATION OF NUCLEAR NUMBER
(MASS NUMBER)**
- 2. CONSERVATION OF NUCLEAR CHARGE
(ATOMIC NUMBER)**

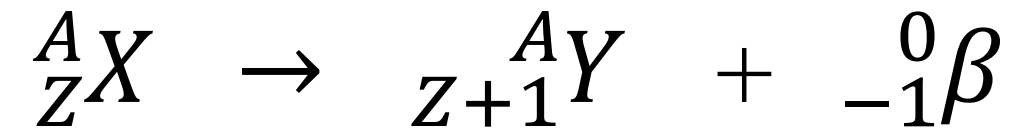
ALPHA DECAY

ALPHA DECAY NUCLEAR REACTION



BETA DECAY

BETA DECAY NUCLEAR REACTION

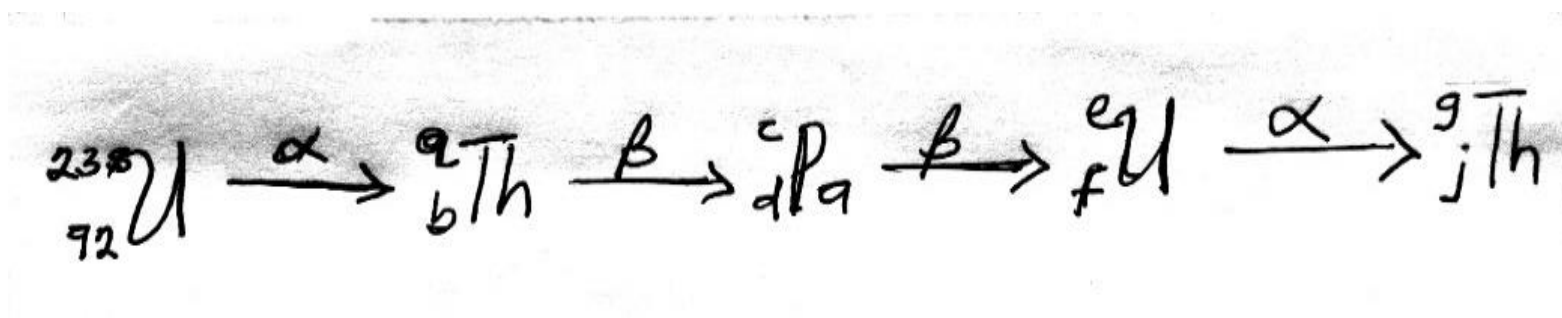


GAMMA DECAY

GAMMA DECAY NUCLEAR REACTION

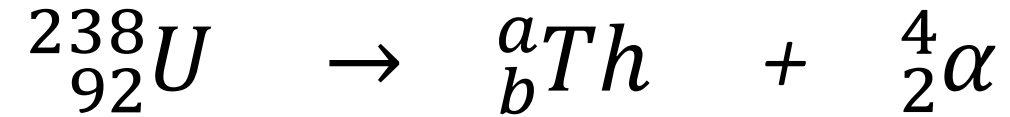


QUEST. DECAY REACTION OF URANIUM TO THORIUM



DETERMINE THE UNKNOWN VALUES OF a, b, c, d, e, f, g, AND j

SOLU. THE NUCLEAR REACTION



CONSERVATION OF MASS AND ATOMIC NUMBERS GIVE

$$238 = a + 4 \quad \Rightarrow \quad a = 234$$

$$92 = b + 2 \quad \Rightarrow \quad b = 90$$

SIMILARLY DETERMINE c, d, e, f, g, AND j

END OF LESSON THREE