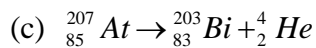
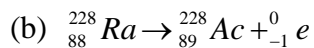
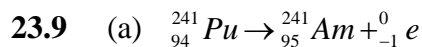
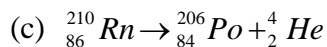
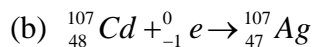
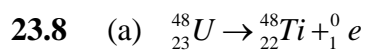
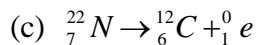
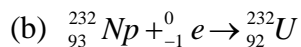
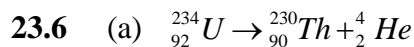


CHEM 1423
Chapters 23
Homework Answers

TEXTBOOK HOMEWORK



23.12 (a) α decay

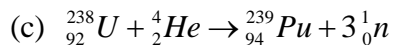
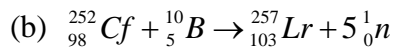
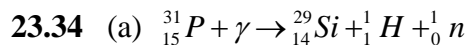
(b) Either positron decay or electron capture

(c) Either positron decay or electron capture

23.13 (a) β decay

(b) β decay

(c) β decay



SUPPLEMENTARY HOMEWORK

- S1.** (a) ^{31}P : $E_b = 2.61 \times 10^{10} \text{ kJ/mol}$, $E_b/N = 8.42 \times 10^8 \text{ kJ/mol}$
(b) ^{190}Os : $E_b = 1.51 \times 10^{11} \text{ kJ/mol}$, $E_b/N = 7.96 \times 10^8 \text{ kJ/mol}$
(c) ^{239}Pu : $E_b = 1.81 \times 10^{11} \text{ kJ/mol}$, $E_b/N = 7.57 \times 10^8 \text{ kJ/mol}$
- S2.** (a) $\Delta E = -1.1 \times 10^{10} \text{ kJ/mol}$
(b) $\Delta E = -1.6 \times 10^9 \text{ kJ/mol}$
(c) $\Delta E = -1.8 \times 10^8 \text{ kJ/mol}$