Decomposition Reaction Equations

1. Balance each equation for a decomposition reaction.

(a) NaCl → Na + Cl2

(b) CaBr2 → Ca + Br2

(c) CCl4 → C + Cl2

(d) NCl3 → N2 + Cl2

(e) P4O10 → P4 + O2

(f) Ag2O → Ag + O2

(g) HCl → H2 + Cl2

(h) KI → K + I2

(i) AlCl3 → Al + Cl2

(j) CuO → Cu + O2

2. Write a balanced chemical equation to represent each reaction described below.

(a) Rubidium oxide decomposes into its elements.

(b) Calcium chloride decomposes into its elements.

BLM 2-35, Decomposition Reaction Equations

1. (a) 2NaCl → 2Na + Cl2

(b) CaBr2 → Ca + Br2

(c) CCl4 → C + 2Cl2

(d) 2NCl3 → N2 + 3Cl2

(e) P4O10 → P4 + 5O2

(f) 2Ag2O → 4Ag + O2

(g) 2HCl → H2 + Cl2

(h) 2KI → 2K + I2

(i) 2AlCl3 → 2Al + 3Cl2

(j) 2CuO → 2Cu + O2

2. (a) 2Rb2O → 2Rb + O2

(b) CaCl2 → Ca + Cl2