Single Replacement Reaction Equations

1. Balance each equation for a single replacement reaction.

(a) K + H3PO4 → K3PO4 + H2

(b) Fe + H2S → Fe2S3 + H2

(c) Cl2 + MgBr2 → MgCl2 + Br2

(d) Cu + Ag2CO3 → CuCO3 + Ag

(e) Br2 + KI → I2 + KBr

(f) Mg + Zn3(PO4)2 → Mg3(PO4)2 + Zn

(g) K + Al(NO3)3 → Al + KNO3

(h) Ca + H2O → Ca(OH)2 + H2

(i) Na + H2SO4 → Na2SO4 + H2

(j) K + H2O → KOH + H2

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

(a) Silver reacts with gold(III) nitrate.

(b) Copper reacts with lead(II) sulphate.

BLM 2-36, Single Replacement Reaction Equations

1. (a) 6K + 2H3PO4 → 2K3PO4 + 3H2

(b) 2Fe + 3H2S → Fe2S3 + 3H2

(c) Cl2 + MgBr2 → MgCl2 + Br2

(d) Cu + Ag2CO3 → CuCO3 + 2Ag

(e) Br2 + KI → I2 + KBr

(f) 3Mg + Zn3(PO4)2 → Mg3(PO4)2 + 3Zn

(g) 3K + Al(NO3)3 → Al + 3KNO3

(h) Ca + 2H2O → Ca(OH)2 + H2

(i) 2Na + H2SO4 → Na2SO4 + H2

(j) K + H2O → KOH + H2

2. (a) 3Ag + Au(NO3)3 → Au + 3AgNO3

(b) Cu + PbSO4 → Pb + CuSO4