

Name : _____ Date : _____

WRITING AND BALANCING CHEMICAL EQUATIONS

Write the chemical equations and balance each of the following word equations.

- (i) Aluminum metal reacts with iron (II) oxide powder to produce aluminum oxide solid and iron metal.

- (ii) Aluminum sulfate solution and calcium hydroxide solution produce a precipitate of aluminum hydroxide and solid calcium sulfate.

- (iii) Ammonia and oxygen gas yield nitrogen (II) oxide gas plus water vapor.

- (iv) Calcium hydroxide solution and carbon dioxide gas yield solid calcium carbonate and liquid water.

- (v) Aqueous iron (III) chloride and sodium carbonate solution yield aqueous sodium chloride and a precipitate of iron (III) carbonate.

- (vi) Solid iron (III) oxide and carbon monoxide gas yield iron metal and carbon dioxide gas.

- (vii) Magnesium carbonate solution plus aqueous hydrochloric acid yield magnesium chloride solution plus liquid water and carbon dioxide gas.

- (viii) Silicon dioxide solid plus aqueous hydrofluoric acid yield solid silicon tetrafluoride plus.

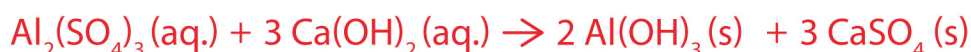
WRITING AND BALANCING CHEMICAL EQUATIONS

Answers

- (i) Aluminum metal reacts with iron (II) oxide powder to produce aluminum oxide solid and iron metal.



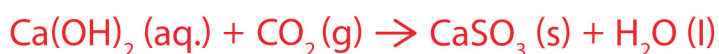
- (ii) Aluminum sulfate solution and calcium hydroxide solution produce a precipitate of aluminum hydroxide and solid calcium sulfate.



- (iii) Ammonia and oxygen gas yield nitrogen (II) oxide gas plus water vapor.



- (iv) Calcium hydroxide solution and carbon dioxide gas yield solid calcium carbonate and liquid water.



- (v) Aqueous iron (III) chloride and sodium carbonate solution yield aqueous sodium chloride and a precipitate of iron (III) carbonate.



- (vi) Solid iron (III) oxide and carbon monoxide gas yield iron metal and carbon dioxide gas.



- (vii) Magnesium carbonate solution plus aqueous hydrochloric acid yield magnesium chloride solution plus liquid water and carbon dioxide gas.



- (viii) Silicon dioxide solid plus aqueous hydrofluoric acid yield solid silicon tetrafluoride plus.

