

Perform the following text book problems in the space provided. These problems are **due within the first 5 minutes** of the beginning of lecture on the due date. **No late work will be accepted.**

It is suggested that students first work out the assigned problems (found in the syllabus) in which the answers are in the back of the text book.

10.10 d

10.16 d

10.18 d

10.20 d

I. In the box at the left, write the letter corresponding to the reaction type: (A) combination (B) decomposition (C) replacement/single replacement (D) Double displacement (E) combustion of an organic fuel

II. Write and balance the following chemical equations.....A. using correct chemical formulas

B. correct physical states for reactants and products { (g),(l),(s), and (aq) }

1) Calcium metal and aqueous silver sulfate reacts to form silver plus calcium sulfate

2) Zinc metal reacts with oxygen gas to form zinc oxide

3) Gaseous hydrogen sulfide is bubbled through aqueous chromium (III) nitrate to produce chromium (III) sulfide and nitric acid

4) Sulfuric acid breaks down into water and sulfur trioxide gas

5) Potassium metal + water (l) ---> potassium hydroxide + hydrogen

Worksheet 10

6) Solid aluminum hydroxide is heated to produce gaseous water and aluminum oxide

7) Gaseous methane ,CH₄, is ignited in oxygen to produce carbon dioxide and water

8) Aqueous potassium carbonate + aqueous ferric bromide ---> potassium bromide + ferric carbonate

9) Liquid C₅H₁₂ + oxygen --> carbon dioxide + water

10) Strontium metal + nitrogen ---> strontium nitride

11) Aqueous lithium phosphate + aqueous stannous acetate---> lithium acetate + stannous phosphate

12) Gaseous chlorine + solid manganese (III) bromide ---> bromine + manganese (III)chloride

13) Gaseous nitrogen dioxide + hydrogen peroxide(aq) ---> nitric acid

14) Phosphoric acid + aqueous sodium hydroxide ---> water + sodium phosphate

15) Gaseous C₂H₆ + oxygen gas ---> carbon dioxide + water

