**I. REACTING Mg WITH HCL SOLUTION**

(1)Appearance of Mg:

silver, sharp, flat and thin

(2)Appearance of HCL solution:

clear

(3)Evidence that a chemical reaction occurred:

Bubbles started to occur

(4)Complete ionic equation:

Mg(s) + 2H+(aq)+ 2Cl-(aq) 🡪 Mg+2(aq) +2Cl-(aq) + H2(G)

(5)Net ionic equation:

Mg(S) + 2H+(aq) 🡪 Mg+2(aq) + H2(g)

(6)General reaction type:

Single Replacement

**II. REACTING Pb(NO3)2 SOLUTION WITH KI SOLUTION**

(7)Appearance of the Pb(NO3)2 solution:

clear

(8)Appearance of the KI solution:

clear

(9)Appearance of the reaction mixture:

yellow and residue on the bottom

(10)Complete ionic equation:

Pb+2(aq) + 2NO3-(aq) + 2K+(aq) + 2I-(aq) 🡪 2K+(aq) + 2(NO3)-(aq) + PbI2(s)

(11)Net ionic equation:

Pb(aq) + 2I(aq) 🡪 PbI2(s)

(12)General reaction type:

Double Replacement

**III. HEATING STEEL WOOL Fe WITH S8**

(13)Appearance of the steel wool (Fe):

grey in color, rough and brillo pad like

(14)Appearance of the S8:

yellow in color, powder like

(15)Appearance of the reaction product:

red grey in color, strong burning smell, after crushing it turned into a powder

(16)Chemical equation:

Fe(s) + S(s) 🡪 FeS(s)

(17)General reaction type:

Synthesis (combination)

**IV. HEATING CuSO4** ● **5H2O**

(18)Appearance of the CuSO4 ● 5H2O:

blue and crystal like, smells like salt

(19)Appearance of solid after heating:

The outer part changed white in color

(20)Appearance of the inside wall of the test tube

after heating:

water was evaporating from the Rxn of heat

(21)Chemical equation:

CuSO4 ● 5H2O 🡪 CuSO4(s) + 5H2O(g)

(22)General reaction type:

Dehydration / Decomposition

**V. REACTING HCl SOLUTION WITH NaOH SOLUTION**

(23)Appearance of the NaOH solution:

clear

(24)Appearance of the NaOH solution with

phenolphthalein added:

pink

(25)Appearance of HCl solution:

clear

(26)Appearance of the solution in the graduated

cylinder:

clear

(27)Evidence that a chemical reaction has occurred:

the pink from the NaOH started to separate from the clear of the HCl

(28)Complete ionic equation:

H+(aq) + Cl-(aq) + Na+(aq) + OH-(aq) 🡪 Na+(aq) + Cl-(aq) + H2O(l)

(29)Net ionic equation:

H+ + OH- 🡪 H2O(l)

(30)General reaction type:

Double Replacement (neutralization)

**VI. HEATING Cu WITH Atmospheric O2**

(31)Appearance of the unreacted Cu mesh:

copper in color, like a penny and stringy

(32)Appearance of the Cu mess after heating and

cooling:

after heating it was black, grey then after cooling it had traces of the copper color again

(33)Chemical equation:

2Cu(s) + O2(g) 🡪 2CuO(s)

(34)General reaction type:

Synthesis (combination)

**VII. REACTING CuSO4 SOLUTION WITH STEEL WOOL (Fe)**

(35)Appearance of the steel wool Fe before reaction:

silver and brillo like

(36)Appearance of the CuSo4 solution before reaction:

blue

(37)Appearance of the steel wool Fe after the reaction

has occurred:

red

(38)Appearance of the CuSO4 solution after the reaction

has occurred:

blue

(39)Complete ionic equation:

2Fe(s) + 3Cu+2(aq) + 3SO4-2(aq) 🡪 3Cu(s) + 2Fe+3(aq) + 3SO4-2(aq)

(40)Net ionic equation:

2Fe(s) + 3Cu+2(aq) 🡪 3Cu(s) + 2Fe+3(aq)

(41)General reaction type:

Single Displacement

**VII. REACTING FeCl3 SOLUTION WITH NaOH SOLUTION**

(42)Appearance of the FeCl3 solution:

yellow

(43)Appearance of the NaOH solution:

clear

(44)Appearance of the reaction mixture:

solid cloudy orange color

(45)Complete ionic reaction:

Fe+3(s) + 3Cl-(aq) + 3Na+(aq) + 3OH-(s) 🡪 FeOH3(s) + 3Na+(aq) + 3Cl-(aq)

(46)Net ionic reaction:

Fe+3(s) + 3OH-(s) 🡪 Fe(OH)3(s)

(47)General reaction type:

Double Replacement (precipitate)

**IX. HEATING (NH4)2CO3**

(48)Appearance of the (NH4)2CO3:

white powder like, smells like hair bleach

(49)Initial appearance of the moist red litmus paper:

Light red in color

(50)Description of what happened to the solid (NH4)2CO3

upon heating:

it started to shake and it seemed to be condensing itself together

(51)Appearance of the inside wall of the test tube

after heating:

water evaporating,(NH4)2CO3 dissipating

(52)Description of the odor of the fumes from (NH4)2CO3

upon heating:

smells like hair bleach

(53)Appearance of the moist red litmus paper after

exposure to fumes:

turned red to blue

(54)Chemical equation:

(NH4)2CO3(s) 🡪 NH3(g) + CO2(g) + H2O(g)

(55)General reaction type:

Decomposition (gas evolution)