OH + WHU = NH3+ H20

## **Chapter 6 Reaction Practice II**

For each of the following reactions, write a balanced equation for the reaction. Coefficients should be in terms of Net-Ionic ANSWERS lowest whole numbers.

1. Magnesium metal is burned in nitrogen gas.

3Mg + N2 -> Mg3N2

2. Lead foil is immersed in silver nitrate solution.

Pb + 2Ag" -> Pb" + 2Ag

3. A solution of ammonium sulfate is added to a solution of barium hydroxide.

Dur + Bar -> Basoy

4. Ethanol(C<sub>2</sub>H<sub>5</sub>OH) is completely burned in air.

(2HSOH +302 -> 2002 +3H20

5. Solutions of zinc sulfate and sodium phosphate are mixed.

3Zn2+ , 2PO43 -> Znz(PO4)-

6. Solutions of silver nitrate and lithium bromide are mixed.

Ag" + Br" - AgBr

7. A solution of ammonium thiocyanate is added to a solution of iron(II) chloride.

SON" + Fe 2+ -> Fe(SCN),

8. Carbon disulfide vapor is burned in excess oxygen.

(S2 +702 -> CO, +750,

9. A solution of sodium hydroxide is added to a solution of ammonium chloride.

\* 2021 - Not for you

10. A strip of magnesium is added to a solution of silver nitrate.

13. Propanol(C <sub>3</sub> H <sub>7</sub> OH) is burned completely in air.
2C3H7OH +902 ->6CO2 +8H20
14. A piece of lithium metal is dropped into a container of nitrogen gas.
6Li + N2 -> ZLizN
15. A solution of sodium sulfide is added to a solution of zinc nitrate.
S2- + Zn' -> Zns
16. Chlorine gas is bubbled into a solution of potassium iodide.
Cl2 + 2I' > I2+ ZCI-
17. Sodium metal is added to water.
2Na + ZHOH -> ZNaOH + H2
18. Solid calcium carbonate is heated.
$Ca(O_3 \rightarrow CaO + CO_3$
19. A piece of solid bismuth is heated strongly in oxygen.
4Bi +302 -> 2BizO3 or 4Bi+502-72BizO6
20. Solutions of silver nitrate and sodium chromate are mixed.
2Agt + CrOy2> AgzCrOy
21. Solutions of sodium iodide and lead nitrate are mixed.
ZI' + Pbz+ PbI 2" 4I+ Pby PbI
22. Calcium metal is heated strongly in nitrogen gas.
3Ca+, Nr -> CazNz

ZC2H2 +502 ->4CO2 + ZH2O

Ca + ZHOH -> Ca(OH) 2 + H,

11. Ethyne(C<sub>2</sub>H<sub>2</sub>) gas is burned in air.

12. Solid calcium is added to warm water.

23.	Solid aluminum oxide is added to a solution of sodium hydroxide.  2021 - Not For you   AlzO <sub>3</sub> + 60H - > ZAI(OH) <sub>3</sub> + 30 <sup>2</sup>
24.	A piece of aluminum metal is added to a solution of silver nitrate.
	Al+ 3Ag+ A/3+
25.	An excess of sodium hydroxide solution is added to a solution of magnesium nitrate.
	20H- + Mg2+ -> Mg(OH)2
26.	Solutions of potassium phosphate and zinc nitrate are mixed.
	27043- +32n2+ 7 Eng(PO4)2
27.	Liquid bromine is shaken with a sodium iodide solution.
	Brz + 2I - Tz + ZBr'  A mixture of powdered iron(III) oxide and powdered aluminum metal is heated strongly. Thermore  Teaction
28.	A mixture of powdered iron(III) oxide and powdered aluminum metal is heated strongly.
	Fezoz + ZAI -> Alzoz + ZFe reaction
29.	Solutions of cobalt(II) nitrate and sodium hydroxide are mixed.
	Co2+ 20H-> Co(OH)2
30.	Ethene(C <sub>2</sub> H <sub>4</sub> ) gas is burned in air.
	CzHu+302 -> 2002 + ZH20
31.	Solid potassium chlorate is heated strongly.
	2KC(03 -> 2KC( + 302
32.	Solid calcium carbonate is strongly heated.
	CaCO3 -> CaO + CO2
33.	A strip of zinc is added to a solution of hydrobromic acid (HBr).
	Zn + ZH+ -> Zn2+ Hz

34. A strip of magnesium metal is heated strongly in pure nitrogen gas
3Mg + N2 -> Mg3N2
35. A solution of nickel(II) chloride is added to a solution of sodium sulfide.
N:5+ + 25> N!Z
36. A piece of nickel metal is immersed in a solution of copper(II) sulfate.
N: + COS+ -> CO + N:5+
37. Chlorine gas is bubbled into a solution of sodium bromide.
Ch + ZBr -> ZCI + BG
38. Solid ammonium carbonate is added to a saturated solution of barium hydroxide.
CO32 + Ba2+ -> Baco,
39. A bar of zinc metal is immersed in a solution of copper(II) sulfate.
In + (w2+ -> Zn2+ + Cu
40. A solution of sodium cyanide is added to a solution of silver nitrate.
41. A small piece of lithium metal is all to tall to
A small piece of fithium metal is added to distilled water.
ZLi +2HOH -> ZLiOH + HZ
42. Excess chlorine has is passed over hot iron filings.
C/2 + Fe > FeC/2 or 3 C/2+2Fe > 2FeC/2
3. Solid magnesium surface neptanydrate is gently heated.
MgSO4 =7420 -> MgSO4 + 7420
44. Propane (C <sub>3</sub> H <sub>8</sub> ) is burned completely in excess oxygen gas.
Cather +50, >3CG, +4H20