

Chemical Equation Assignment

Write balanced chemical equations for each of the following:

1. double replacement reaction between osmium(IV) chloride and sodium oxide
2. single replacement of the hydrogen in ammonia gas (NH_3) by iodine to form NI_3
3. decomposition of mercury(I) oxide
4. decomposition of calcium chlorate to form calcium chloride plus a common gas
5. a cationic single replacement between gold(III) cyanide and hydrogen gas
6. the decomposition of ammonium nitrate to form nitrogen gas, oxygen gas and water
7. double replacement between osmium(VI) chloride and carbon dioxide
8. double replacement between sodium phosphate and calcium sulphate
9. double replacement between iron(III) chloride and potassium carbonate
10. single replacement between silver nitrate and zinc metal

11. single replacement between calcium chloride and oxygen gas
12. decomposition of sodium carbonate to form a sodium compound plus a common gas
13. neutralization reaction between hydrochloric acid (HCl) and sodium hydroxide
14. synthesis of sulphur(VI) oxide from sulphur(IV) oxide and oxygen gas
15. synthesis of sulphuric acid (H_2SO_4) from sulphur(VI) oxide and water
16. a hydrocarbon with the formula C_6H_{14} is combusted with oxygen gas to form carbon dioxide and water
17. single replacement between uranium(VI) fluoride and calcium
18. double replacement between tin(II) chloride and potassium phosphate
19. synthesis between yttrium and oxygen
20. formation of magnesium hydroxide plus a gas from magnesium metal and water