

CHM 151: Predicting Products and Balancing Equations

I. Circle the appropriate reaction abbreviation indicating each reaction as a

- C = Combination reaction
DISP/SR = Displacement/Single-replacement reaction
PPT = Precipitation reaction
A-B = Acid-base Neutralization reaction
B = Combustion reaction
NR = No Reaction

II. Complete and balance each chemical equation, including all subscripts indicating physical state. Write NR for "no reaction."

- C DISP/SR PPT A-B B NR 1. $\text{AgNO}_3 (\text{aq}) + \text{KI} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 2. $\text{Ba}(\text{NO}_3)_2 (\text{aq}) + \text{Na}_2\text{SO}_4 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 3. $\text{C}_5\text{H}_{12} (\text{l}) + \text{O}_2 (\text{g}) \Rightarrow$
C DISP/SR PPT A-B B NR 4. $\text{Ca}(\text{OH})_2 (\text{aq}) + \text{HC}_2\text{H}_3\text{O}_2 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 5. $\text{Na} (\text{s}) + \text{H}_2\text{O} (\text{l}) \Rightarrow$
C DISP/SR PPT A-B B NR 6. $\text{Zn} (\text{s}) + \text{S}_8 (\text{s}) \Rightarrow$
C DISP/SR PPT A-B B NR 7. $\text{K} (\text{s}) + \text{Na}_3\text{PO}_4 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 8. $\text{H}_2\text{SO}_4 (\text{aq}) + \text{Ni} (\text{s}) \Rightarrow$
C DISP/SR PPT A-B B NR 9. $\text{CaS} (\text{aq}) + \text{Ba}(\text{OH})_2 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 10. $\text{KCl} (\text{aq}) + \text{Cu} (\text{s}) \Rightarrow$
C DISP/SR PPT A-B B NR 11. $\text{H}_3\text{PO}_4 (\text{aq}) + \text{NaOH} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 12. $\text{Na} (\text{s}) + \text{Br}_2 (\text{l}) \Rightarrow$
C DISP/SR PPT A-B B NR 13. $\text{Pb}(\text{NO}_3)_2 (\text{aq}) + \text{BaS} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 14. $\text{C}_2\text{H}_5\text{OH} (\text{l}) + \text{O}_2 (\text{g}) \Rightarrow$
C DISP/SR PPT A-B B NR 15. $\text{Zn} (\text{s}) + \text{H}_2\text{O} (\text{l}) \Rightarrow$
C DISP/SR PPT A-B B NR 16. $\text{Mg}(\text{NO}_3)_2 (\text{aq}) + \text{KOH} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 17. $\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2 (\text{aq}) + \text{LiBr} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 18. $\text{Li} (\text{s}) + \text{Al}_2(\text{SO}_4)_3 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 19. $\text{H}_3\text{PO}_4 (\text{aq}) + \text{Na} (\text{s}) \Rightarrow$
C DISP/SR PPT A-B B NR 20. $\text{HBr} (\text{aq}) + \text{BaCO}_3 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 21. $\text{BaS} (\text{aq}) + \text{NaCl} (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 22. $\text{ZnI}_2 (\text{aq}) + \text{AgNO}_3 (\text{aq}) \Rightarrow$
C DISP/SR PPT A-B B NR 23. $\text{K} (\text{s}) + \text{P}_4 (\text{s}) \Rightarrow$