

CHM 130: Predicting Products and Balancing Equations

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

- CB = Combustion
SR = Single-replacement reaction
Neut = Neutralization reaction
NR = No reaction

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

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|----|----|------|----|-----|--|
| CB | SR | Neut | NR | 1. | $\text{AgNO}_3 (\text{aq}) + \text{Al} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 2. | $\text{Ba}(\text{OH})_2 (\text{aq}) + \text{HNO}_3 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 3. | $\text{Au} (\text{s}) + \text{FeCl}_2 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 4. | $\text{C}_5\text{H}_{10}\text{O} (\text{l}) + \text{O}_2 (\text{g}) \Rightarrow$ |
| CB | SR | Neut | NR | 5. | $\text{Na} (\text{s}) + \text{H}_2\text{O} (\text{l}) \Rightarrow$ |
| CB | SR | Neut | NR | 6. | $\text{Zn} (\text{s}) + \text{HCl} (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 7. | $\text{Mg} (\text{s}) + \text{Na}_2\text{SO}_4 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 8. | $\text{HCl} (\text{aq}) + \text{Ni} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 9. | $\text{Al} (\text{s}) + \text{KOH} (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 10. | $\text{CuCl}_2 (\text{aq}) + \text{Zn} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 11. | $\text{NaOH} (\text{aq}) + \text{H}_3\text{PO}_4 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 12. | $\text{HBr} (\text{aq}) + \text{Al} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 13. | $\text{Pb}(\text{NO}_3)_2 (\text{aq}) + \text{Al} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 14. | $\text{C}_7\text{H}_{16} (\text{l}) + \text{O}_2 (\text{g}) \Rightarrow$ |
| CB | SR | Neut | NR | 15. | $\text{Mg} (\text{s}) + \text{AgNO}_3 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 16. | $\text{H}_2\text{SO}_3 (\text{aq}) + \text{KOH} (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 17. | $\text{HC}_2\text{H}_3\text{O}_2 (\text{aq}) + \text{Mg} (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 18. | $\text{Ag} (\text{s}) + \text{Al}_2(\text{SO}_4)_3 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 19. | $\text{H}_2\text{SO}_4 (\text{aq}) + \text{Al} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 20. | $\text{H}_2\text{S} (\text{aq}) + \text{Ba}(\text{OH})_2 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 21. | $\text{C}_4\text{H}_8\text{O}_2 (\text{l}) + \text{O}_2 (\text{g}) \Rightarrow$ |
| CB | SR | Neut | NR | 22. | $\text{HCl} (\text{aq}) + \text{Ag} (\text{s}) \Rightarrow$ |
| CB | SR | Neut | NR | 23. | $\text{Ca}(\text{OH})_2 (\text{aq}) + \text{HC}_2\text{H}_3\text{O}_2 (\text{aq}) \Rightarrow$ |
| CB | SR | Neut | NR | 24. | $\text{Ba} (\text{s}) + \text{H}_2\text{O} (\text{l}) \Rightarrow$ |
| CB | SR | Neut | NR | 25. | $\text{Sr}(\text{OH})_2 (\text{aq}) + \text{H}_3\text{PO}_4 (\text{aq}) \Rightarrow$ |