

Reaction Practice

Write balanced reactions (net-ionic where appropriate) for the processes below which are expected to happen. Reactions that do not occur in aqueous solution are marked with *.

1. copper(II) chloride + sodium nitrate

2. solid calcium carbonate + hydrochloric acid

3. zinc metal + sulfuric acid

4. nitric acid + potassium hydroxide

5. strontium chloride + sodium carbonate

6. lithium metal + water

*7. bromine + potassium metal

8. sodium carbonate + hydrochloric acid

9. sodium acetate + potassium sulfate

*10. butane gas (C_4H_{10}) + oxygen

11. nickel metal + zinc chloride

12. barium nitrate + sulfuric acid

*13. iron metal + oxygen (product contains iron(III))

14. solid magnesium oxide + hydrochloric acid

15. sulfate ions + copper metal in acidic solution; products include Cu^{2+} and sulfur dioxide gas

16. dihydrogen sulfide gas + iodine in acidic solution; products include sulfur and iodide ions

17. $\text{CrO}_2^- + \text{ClO}^-$ in basic solution; products include chloride ion and chromate ion