

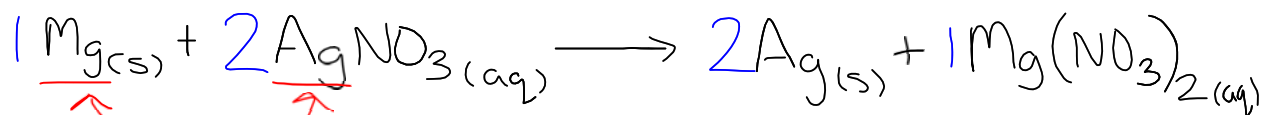


Lesson 13: Single Replacement Reactions

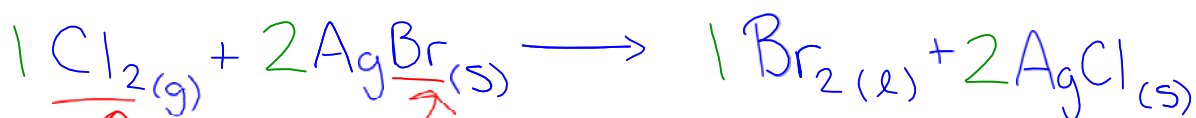
- An element reacts with an ionic compound
- After the reaction the element ends up in the compound and one of the elements ends up by itself
- One type, the metals trade places
- Second type, the non-metals trade places

Ex.) Write and balance the following single replacement reactions:

a) magnesium $\overset{+}{\text{}} \overset{-}{\text{}}$ silver nitrate \longrightarrow silver + magnesium $\overset{2+}{\text{}} \overset{-}{\text{}}$ nitrate



b) chlorine reacts with silver bromide to make silver chloride and bromine

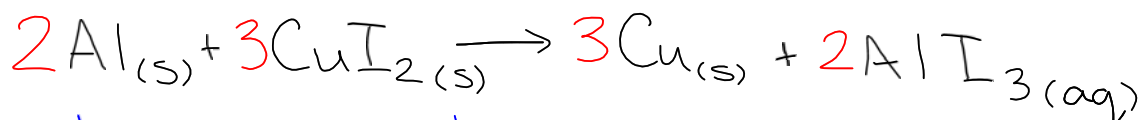




c) liquid bromine + aqueous chromium(III) iodide \rightarrow chromium(III) bromide + solid iodine



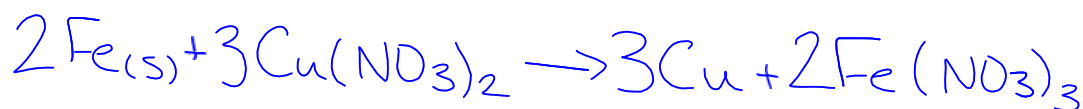
d) aluminium + copper(II) iodide \rightarrow copper + aluminium iodide



e) $\frac{1}{2}\text{Cl}_{2(g)} + \frac{2}{1}\text{NaI}_{(aq)} \rightarrow \frac{1}{1}\text{I}_{2(s)} + \frac{2}{2}\text{NaCl}_{(aq)}$ sodium chloride

f) $\frac{1}{1}\text{Fe}_{(s)} + \frac{1}{1}\text{Cu}(\text{NO}_3)_{2(aq)} \rightarrow \frac{1}{1}\text{Cu}_{(s)} + \frac{1}{1}\text{Fe}(\text{NO}_3)_2$

* 2 possible answers



Worksheet