

Chemical Reactions 6

Double Replacement Reactions

INFORMATION

M represents any metal.

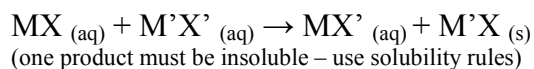
X represents any anion.

An **acid** is any compound with a hydrogen cation (H^+).

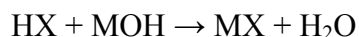
A **base** is any compound with a hydroxide (OH^-) anion.

Reactions:

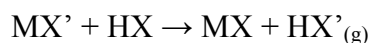
1. Two Aqueous Solutions:



2. Neutralization of Acid and Base:



3. Formation of a Gas:



Critical Thinking Activity

For each of the following groups of compounds, group them into products and reactants and write balanced equations based on the appropriate template from above. Be sure to include the states of matter for each compound. If no reaction will occur, write “NR.”

1. NaOH, NaCl, HCl, H₂O
2. Pb(NO₃)₂, KI, KNO₃, PbI₂
3. Pb(OH)₂, PbS, HgOH, Hg₂S
4. K₂S, HF, KF, H₂S
5. AgCl, NaNO₃, AgNO₃, NaCl
6. K₂CrO₄, KNO₃, Pb(NO₃)₂, PbCrO₄
7. CaCO₃, HCl, CaCl₂, H₂CO₃
8. K₂CO₃, BaCO₃, BaCl₂, KCl
9. Cd₃(PO₄)₂, CdS, (NH₄)₃PO₄, (NH₄)₂S
10. NaCl, KNO₃, KCl, NaNO₃