

Double Displacement Reactions in Solution

Proof that a reaction has occurred:

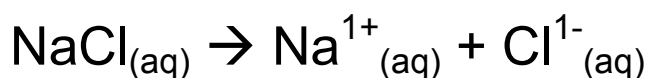
1. Precipitate forms (insoluble solid)
2. Gas forms
3. Water forms

* if one of these doesn't happen, a mixture of ions is produced.

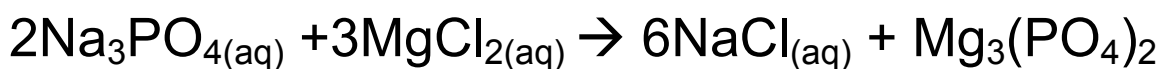
Ex 1. Determine if a chemical reaction occurs when each set of chemicals are mixed. Write a balanced chemical equation for the reaction.

- a) silver nitrate and sodium chloride
- b) potassium nitride and magnesium oxide

Remember that when an ionic compound dissolves in water, it ionizes.



Total Ionic Equations: write all soluble compounds as separate ions.



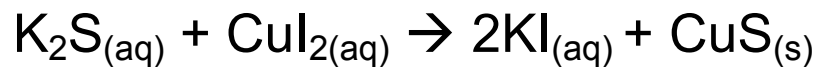
Total Ionic = ?

Spectator Ions: are found on both sides of the equation. Don't take part in reaction.

Net Ionic Equation: remove spectators from total ionic equation.

Net Ionic = ?

Ex 1. Write the net ionic equation for the following reaction:



Ex 2. Solutions of copper (I) sulphate and calcium nitride are mixed. Write the net ionic equation.