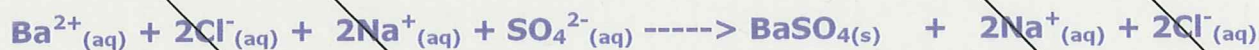


Writing Net Ionic Equations Worksheet

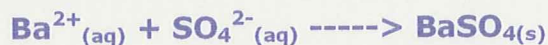
In describing reactions that occur in solution (i.e. taking place while dissolved in water), it is desirable to write the equation for the reaction in ionic form, indicating the ionic species that actually react.

For example, if we were describing the reaction of a solution of BaCl_2 with a solution of Na_2SO_4 to form the insoluble solid BaSO_4 we would write:

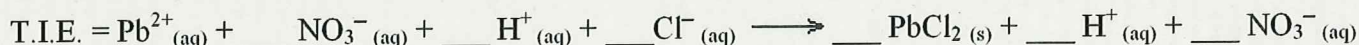


To write a net ionic equation for reactions taking place in water:

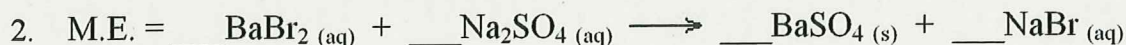
1. Balance the original equation, with states of matter.
2. All substances that break up into its ions are the ones that have (aq) as their state of matter. These are written as ions. No other states of matter are broken up into their ions.
3. Multiply the subscripts and the coefficients of the ions to get the correct number of ions in the net ionic equation.
4. In the above equation, note that the sodium and chloride ions are unchanged in the reaction and are present on both sides of the equation. Since they are not taking part in the reaction, they are referred to as **spectator ions**. They will be subtracted out of the equation. When the spectator ions are subtracted, the result is a **net ionic equation**. The net ionic equation for the above reaction is:



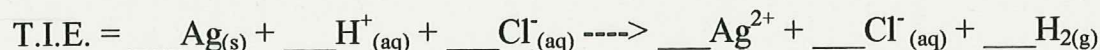
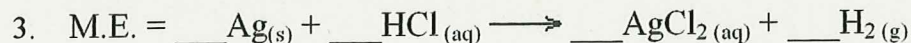
* Balance the original equation, and then write the balanced net ionic equations (without the spectator ions) for the following using the procedure above. M.E. = Molecular Equation, T.I.E. = Total ionic equation, N.I.E. = Net ionic equation



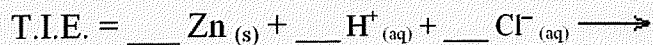
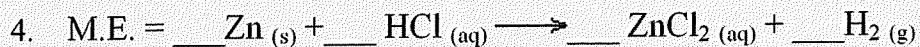
N.I.E. = ?



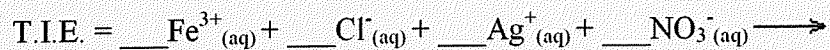
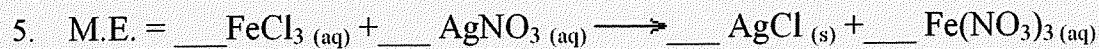
N.I.E. = ?



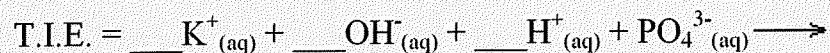
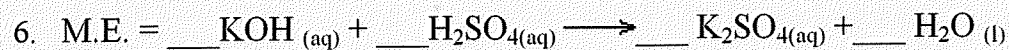
N.I.E. = ?



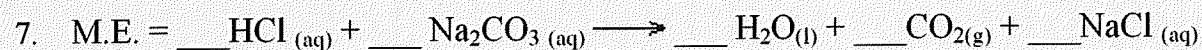
N.I.E. = ?



N.I.E. = ?

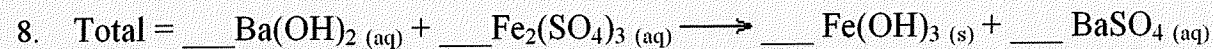


N.I.E. = ?



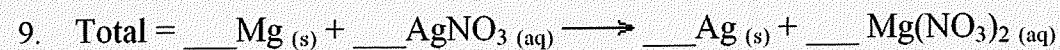
T.I.E. = ?

N.I.E. = ?



T.I.E. = ?

N.I.E. = ?



T.I.E. = ?

N.I.E. = ?