## Answer on Question \#60385, Chemistry / General Chemistry

1. $\mathrm{Al} 2(\mathrm{SO} 4) 3(\mathrm{aq})+3 \mathrm{BaBr} 2(\mathrm{aq})----->2 \mathrm{AlBr} 3(\mathrm{aq})+3 \mathrm{BaSO} 4(\mathrm{~s})$ What does this reaction tell me? I have 6 unknown chemicals. I have balanced all 15 of their possible combination equations but don't know what I need to do to figure out which is which. I don't know what the balanced equation is telling me so I can say it is or is not solution $x$.

## Solution:

Reaction is represented below is the ion exchange reaction in aqueous solution:

$$
\text { Al2(SO4)3(aq)+3BaBr2(aq)------> 2AlBr3(aq)+3BaSO4(s) } \downarrow
$$

This reaction indicates the presence of barium ions in solution. In addition to the solution of aluminum sulfate ions react with barium sulfate ions. This produces an amorphous precipitate barium sulfate. Barium sulfate is not soluble in water. The formation of barium sulfate is a high-quality response to the presence of barium ions. In this reaction aluminum sulfate is precipitant. The formation of barium sulfate can also be used for the quantitative determination of barium in solution.

