Precipitate Reactions Worksheet

Write balanced chemical, complete ionic, and net ionic equations for the following reactions that may produce precipitates. Use NR to indicate that no reaction occurs. Use the solubility chart on pg. 344 (table 11.3) to assist you if necessary. Include the states of matter for each reactant and product.

1. Aqueous solutions of potassium iodide and silver nitrate are mixed.

KI(aq) + AgNO3(aq) 🡪 AgI(s) + KNO3(aq)

Complete Ionic:

Net Ionic:

1. Aqueous solutions of ammonium (NH4+1) phosphate and sodium sulfate are mixed.

2(NH4)3PO4(aq) + 3Na2SO4(aq) 🡪 3(NH4)2SO4(aq) + 2Na3PO4(s)

Complete Ionic:

Net Ionic:

1. Aqueous solutions of aluminum chloride and sodium hydroxide are mixed.

AlCl3(aq) + 3NaOH(aq) 🡪 Al(OH)3(s) + 3NaCl(aq)

Complete Ionic:

Net Ionic:

1. Aqueous solutions of lithium sulfate and calcium nitrate are mixed.

Li2SO4(aq) + Ca(NO3)2(aq) 🡪 CaSO4(s) + 2LiNO3(aq)

Complete Ionic:

Net Ionic:

1. Aqueous solutions of iron (II) sulfate and barium hydroxide are mixed.

FeSO4(aq) + Ba(OH)2(aq) 🡪 BaSO4(s) + Fe(OH)2(s) NO REACTION

Complete Ionic:

Net Ionic:

1. HgSO4(aq) + BaCl2(aq) →

HgSO4(aq) + BaCl2(aq) 🡪 HgCl2(s) + BaSO4(s) NO REACTION

Complete Ionic:

Net Ionic:

1. Na2S(aq) + NiSO4(aq) →

Na2S(aq) + NiSO4(aq) 🡪 NiS(s) + Na2SO4(aq)

Complete Ionic:

Net Ionic:

1. Al(NO3)3(aq) + Na3PO4(aq) →

Al(NO3)3(aq) + Na3PO4(aq) 🡪 AlPO4(s) + 3NaNO3(aq)

Complete Ionic:

Net Ionic:

1. (NH4)2CO3(aq) + MgSO4(aq) →

(NH4)2CO3(aq) + MgSO4(aq) 🡪 (NH4)2SO4(aq) + MgCO3(s)

Complete Ionic:

Net Ionic:

1. Ca(OH)2(aq) + Na2SO4(aq) 🡪

Ca(OH)2(aq) + Na2SO4(aq) 🡪 2NaOH(aq) + CaSO4(s)

Complete Ionic:

Net Ionic: