Name: Answer Key

Net Ionic Equations Worksheet

FINISH and BALANCE the following equations, then write the NET IONIC EQUATION for each one:

1. $NaCl\,(aq) + AgC_2H_3O_2\,(aq) \rightarrow NaC_2H_3O_2\,(aq) + AgCl\,(s)$

   $\mathbf{Ag^+}\,(aq) + \mathbf{Cl^-}\,(aq) \rightarrow \mathbf{AgCl\,(s)}$

2. $BaCl_2\,(aq) + Na_2SO_4\,(aq) \rightarrow \mathbf{2}NaCl\,(aq) + BaSO_4\,(s)$

   $\mathbf{Ba^{2+}}\,(aq) + \mathbf{SO_4^{2-}}\,(aq) \rightarrow \mathbf{BaSO_4\,(s)}$

3. $\mathbf{2}AgNO_3\,(aq) + K_2CO_3\,(aq) \rightarrow \mathbf{Ag_2CO_3}(s) + \mathbf{2KNO_3}\,(aq)$

   $\mathbf{2Ag^+}\,(aq) + \mathbf{CO_3^{2-}}\,(aq) \rightarrow \mathbf{Ag_2CO_3\,(s)}$

4. $MgBr_2\,(aq) + KOH\,(aq) \rightarrow \mathbf{2}KBr\,(aq) + Mg(OH)_2\,(s)$

   $\mathbf{Mg^{2+}}\,(aq) + \mathbf{2OH^-}\,(aq) \rightarrow \mathbf{Mg(OH)_2(s)}$

5. $\mathbf{3}NaOH\,(aq) + H_3PO_4\,(aq) \rightarrow \mathbf{Na_3PO_4}\,(aq) + \mathbf{3H_2O}\,(l)$

   NR

6. $AlCl_3\,(aq) + K_3PO_4\,(aq) \rightarrow \mathbf{AlPO_4\,(s)} + \mathbf{3KCl}\,(aq)$

   $\mathbf{Al^{3+}}\,(aq) + \mathbf{PO_4^{3-}}\,(aq) \rightarrow \mathbf{AlPO_4(s)}$

7. $\mathbf{2}KOH\,(aq) + H_2CO_3\,(aq) \rightarrow \mathbf{2}H_2O\,(l) + K_2CO_3\,(aq)$

   NR

8. $Pb(NO_3)_2(aq) + Na_2S(aq) \rightarrow PbS(s) + \mathbf{2}NaNO_3(aq)$

   $\mathbf{Pb^{2+}}\,(aq) + \mathbf{S^{2-}}\,(aq) \rightarrow \mathbf{PbS\,(s)}$

9. $\mathbf{2}(NH_4)_3PO_4(aq) + \mathbf{3}Ca(NO_3)_2(aq) \rightarrow \mathbf{6NH_4NO_3\,(aq)} + \mathbf{Ca_3(PO_4)_2\,(s)}$

   $\mathbf{3Ca^{2+}\,(aq)} + \mathbf{2PO_4^{3-}\,(aq)} \rightarrow \mathbf{Ca_3(PO_4)_2\,(s)}$

10. $Fe(NO_3)_3(aq) + \mathbf{3}NaOH(aq) \rightarrow \mathbf{Fe(OH)_3\,(s)} + \mathbf{3NaNO_3\,(aq)}$

    $\mathbf{Fe^{3+}\,(aq)} + \mathbf{3OH^-\,(aq)} \rightarrow \mathbf{Fe(OH)_3\,(s)}$