

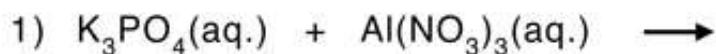
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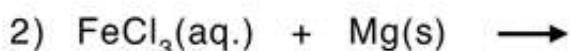
Net Ionic Equations: Homework Problems

Complete and balance the following equations. Show the ionic and net ionic forms.



Ionic:

Net ionic:



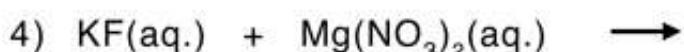
Ionic:

Net ionic:



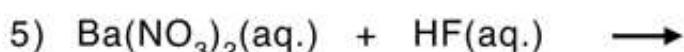
Ionic:

Net ionic:



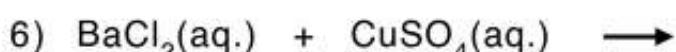
Ionic:

Net ionic:



Ionic:

Net ionic:



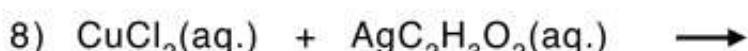
Ionic:

Net ionic:



Ionic:

Net ionic:



Ionic:

Net ionic:



Ionic:

Net ionic:



Ionic:

Net ionic:

Name: _____
Score: _____ Date: _____

Net Ionic Equations: Homework Problems (Answers)

Complete and balance the following equations. Show the ionic and net ionic forms.

- 1) $K_3PO_4(aq.) + Al(NO_3)_3(aq.) \rightarrow AlPO_4(s) + 3 KNO_3(aq.)$
Ionic: $3K^+(aq) + PO_4^{3-}(aq) + Al^{3+}(aq) + 3NO_3^-(aq) \rightarrow AlPO_4(s) + 3K^+(aq) + 3NO_3^-(aq)$
Net ionic: $Al^{3+}(aq) + PO_4^{3-}(aq) \rightarrow AlPO_4(s)$
- 2) $2 FeCl_3(aq.) + 3 Mg(s) \rightarrow 3 MgCl_2(aq.) + 2 Fe(s)$
Ionic: $2Fe^{3+}(aq) + 6Cl^-(aq) + 3Mg(s) \rightarrow 3Mg^{2+}(aq) + 6Cl^-(aq) + 2Fe(s)$
Net ionic: $2Fe^{3+}(aq) + 3Mg(s) \rightarrow 3Mg^{2+}(aq) + 2Fe(s)$
- 3) $Ni(NO_3)_2(aq.) + 2 NaOH(aq.) \rightarrow Ni(OH)_2(s) + 2 NaNO_3(aq.)$
Ionic: $Ni^{2+}(aq) + 2NO_3^-(aq) + 2Na^+(aq) + 2OH^-(aq) \rightarrow Ni(OH)_2(s) + 2Na^+(aq) + 2NO_3^-(aq)$
Net ionic: $Ni^{2+}(aq) + 2OH^-(aq) \rightarrow Ni(OH)_2(s)$
- 4) $2 KF(aq.) + Mg(NO_3)_2(aq.) \rightarrow 2 KNO_3(aq.) + MgF_2(s)$
Ionic: $2K^+(aq) + 2F^-(aq) + Mg^{2+}(aq) + 2NO_3^-(aq) \rightarrow 2K^+(aq) + 2NO_3^-(aq) + MgF_2(s)$
Net ionic: $Mg^{2+}(aq) + 2F^-(aq) \rightarrow MgF_2(s)$
- 5) $Ba(NO_3)_2(aq.) + 2 HF(aq.) \rightarrow BaF_2(s) + 2 HNO_3(aq.)$
Ionic: $Ba^{2+}(aq) + 2NO_3^-(aq) + 2H^+(aq) + 2F^-(aq) \rightarrow BaF_2(s) + 2H^+(aq) + 2NO_3^-(aq)$
Net ionic: $Ba^{2+}(aq) + 2F^-(aq) \rightarrow BaF_2(s)$
- 6) $BaCl_2(aq.) + CuSO_4(aq.) \rightarrow BaSO_4(s) + CuCl_2(aq.)$
Ionic: $Ba^{2+}(aq) + 2Cl^-(aq) + Cu^{2+}(aq) + SO_4^{2-}(aq) \rightarrow BaSO_4(s) + Cu^{2+}(aq) + 2Cl^-(aq)$
Net ionic: $Ba^{2+}(aq) + SO_4^{2-}(aq) \rightarrow BaSO_4(s)$
- 7) $Pb(NO_3)_2(aq.) + Na_2SO_4(aq.) \rightarrow PbSO_4(s) + 2 NaNO_3(aq.)$
Ionic: $Pb^{2+}(aq) + 2NO_3^-(aq) + 2Na^+(aq) + SO_4^{2-}(aq) \rightarrow PbSO_4(s) + 2Na^+(aq) + 2NO_3^-(aq)$
Net ionic: $Pb^{2+}(aq) + SO_4^{2-}(aq) \rightarrow PbSO_4(s)$
- 8) $CuCl_2(aq.) + 2 AgC_2H_3O_2(aq.) \rightarrow Cu(C_2H_3O_2)_2(aq.) + 2 AgCl(s)$
Ionic: $Cu^{2+}(aq) + 2Cl^-(aq) + 2Ag^+(aq) + 2C_2H_3O_2^-(aq) \rightarrow Cu^{2+}(aq) + 2C_2H_3O_2^-(aq) + 2AgCl(s)$
Net ionic: $Ag^+(aq) + Cl^-(aq) \rightarrow AgCl(s)$
- 9) $K_2C_2O_4(aq.) + CaCl_2(aq.) \rightarrow 2 KCl(aq.) + CaC_2O_4(s)$
Ionic: $2K^+(aq) + C_2O_4^{2-}(aq) + Ca^{2+}(aq) + 2Cl^-(aq) \rightarrow 2K^+(aq) + 2Cl^-(aq) + CaC_2O_4(s)$
Net ionic: $Ca^{2+}(aq) + C_2O_4^{2-}(aq) \rightarrow CaC_2O_4(s)$
- 10) $3 (NH_4)_2C_2O_4(aq.) + 2 Al(ClO_4)_3(aq.) \rightarrow Al_2(C_2O_4)_3(s) + 6 NH_4ClO_4(aq.)$
Ionic: $6NH_4^+(aq) + 3C_2O_4^{2-}(aq) + 2Al^{3+}(aq) + 6ClO_4^-(aq) \rightarrow Al_2(C_2O_4)_3(s) + 6NH_4^+(aq) + 6ClO_4^-(aq)$
Net ionic: $2Al^{3+}(aq) + 3C_2O_4^{2-}(aq) \rightarrow Al_2(C_2O_4)_3(s)$