

Dissociation Equations Worksheet

Write balanced chemical equations to represent the slight dissociation or the complete dissociation for 1 mole of the following compounds. In the case of slight dissociation use a double arrow and for complete dissociation use a single arrow. Include phase notation in the equations.

- 1) silver chloride
- 2) sodium acetate
- 3) ammonium sulfate
- 4) calcium carbonate
- 5) potassium carbonate
- 6) sodium hydroxide
- 7) silver chlorate
- 8) iron(II) sulfate
- 9) lead(II) phosphate
- 10) lead(II) chromate
- 11) iron(III) chloride
- 12) calcium nitrate
- 13) iron(III) oxide
- 14) copper(II) sulfate
- 15) mercury(II) sulfide
- 16) zinc chloride
- 17) lead(II) acetate
- 18) aluminum phosphate

Solutions

- 1) $\text{AgCl(s)} \leftrightarrow \text{Ag}^+(\text{aq}) + \text{Cl}^-(\text{aq})$
- 2) $\text{NaC}_2\text{H}_3\text{O}_2(\text{s}) \rightarrow \text{Na}^+(\text{aq}) + \text{C}_2\text{H}_3\text{O}_2^-(\text{aq})$
- 3) $(\text{NH}_4)_2\text{SO}_4(\text{s}) \rightarrow 2\text{NH}_4^+(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$
- 4) $\text{CaCO}_3(\text{s}) \leftrightarrow \text{Ca}^{2+}(\text{aq}) + \text{CO}_3^{2-}(\text{aq})$
- 5) $\text{K}_2\text{CO}_3(\text{s}) \rightarrow 2\text{K}^+(\text{aq}) + \text{CO}_3^{2-}(\text{aq})$
- 6) $\text{NaOH(s)} \rightarrow \text{Na}^+(\text{aq}) + \text{OH}^-(\text{aq})$
- 7) $\text{AgClO}_3(\text{s}) \rightarrow \text{Ag}^+(\text{aq}) + \text{ClO}_3^-(\text{aq})$
- 8) $\text{FeSO}_4(\text{s}) \rightarrow \text{Fe}^{2+}(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$
- 9) $\text{Pb}_3(\text{PO}_4)_2(\text{s}) \leftrightarrow 3\text{Pb}^{2+}(\text{aq}) + 2\text{PO}_4^{3-}(\text{aq})$
- 10) $\text{PbCrO}_4(\text{s}) \leftrightarrow \text{Pb}^{2+}(\text{aq}) + \text{CrO}_4^{2-}(\text{aq})$
- 11) $\text{FeCl}_3(\text{s}) \rightarrow \text{Fe}^{3+}(\text{aq}) + 3\text{Cl}^-(\text{aq})$
- 12) $\text{Ca(NO}_3)_2(\text{s}) \rightarrow \text{Ca}^{2+}(\text{aq}) + 2\text{NO}_3^-(\text{aq})$
- 13) $\text{Fe}_2\text{O}_3(\text{s}) \leftrightarrow 2\text{Fe}^{3+}(\text{aq}) + 3\text{O}^{2-}(\text{aq})$
- 14) $\text{CuSO}_4(\text{s}) \rightarrow \text{Cu}^{2+}(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$
- 15) $\text{HgS(s)} \leftrightarrow \text{Hg}^{2+}(\text{aq}) + \text{S}^{2-}(\text{aq})$
- 16) $\text{ZnCl}_2(\text{s}) \rightarrow \text{Zn}^{2+}(\text{aq}) + 2\text{Cl}^-(\text{aq})$
- 17) $\text{Pb(C}_2\text{H}_3\text{O}_2)_2(\text{s}) \rightarrow \text{Pb}^{2+}(\text{aq}) + 2\text{C}_2\text{H}_3\text{O}_2^-(\text{aq})$
- 18) $\text{AlPO}_4(\text{s}) \leftrightarrow \text{Al}^{3+}(\text{aq}) + \text{PO}_4^{3-}(\text{aq})$