

9. The net ionic equation for the predominant hydrolysis reaction occurring in a 1.00 mol L^{-1} potassium hydrogensulfate solution is:

- (a) $\text{KHSO}_4(\text{aq}) + \text{H}_2\text{O}(\ell) \rightleftharpoons \text{K}^+(\text{aq}) + \text{H}_2\text{SO}_4(\text{aq}) + \text{OH}^-(\text{aq})$
- (b) $\text{K}^+(\text{aq}) + \text{HSO}_4^-(\text{aq}) \rightleftharpoons \text{K}^+(\text{aq}) + \text{H}^+(\text{aq}) + \text{SO}_4^{2-}(\text{aq})$
- (c) $\text{HSO}_4^-(\text{aq}) + \text{H}_2\text{O}(\ell) \rightleftharpoons \text{H}_2\text{SO}_4(\text{aq}) + \text{OH}^-(\text{aq})$
- (d) $\text{HSO}_4^-(\text{aq}) + \text{H}_2\text{O}(\ell) \rightleftharpoons \text{SO}_4^{2-}(\text{aq}) + \text{H}_3\text{O}^+(\text{aq})$