CHE 139
Activity 11

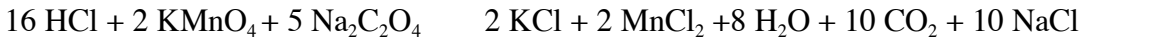
1. If 25.00 mL of 15 M HNO_3 is diluted to 4.00 x 10^2 mL, what is the molarity of the diluted solution?

2. Potassium hydrogen phthalate is a solid, monoprotic acid frequently used in the laboratory as a primary standard. It has the unwieldy formula of $KHC_8H_4O_4$, often shortened to KHP. If 25.00 mL of a potassium hydroxide solution are needed to neutralize 2.268 grams of KHP, what is the molarity of the potassium hydroxide solution?

3. A standard solution is made containing 3.30 g/L of sodium oxalate.

a) Calculate the molarity of this solution.

b) 44.00 mL of this sodium oxalate solution reacts stoichiometricly (in the same proportion as the balanced chemical equation) with 32.00 mL of a potassium permanganate solution of unknown concentration according to the equation:



Calculate the molarity of the potassium permanganate solution.