Chemistry 141 Name

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Quiz 4A (20 points) February 24, 2009

1. (14 points) Suppose that 250.0 mL of 0.7443 M potassium phosphate were added to 375.0 mL of 0.4299 M copper(II) nitrate. Write and balance the equation for the reaction that occurs. Use an IE table to solve the problem.

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1. Which reactant is limiting?
2. What is the value of x?
3. What is the identity of the solid that is formed? How many grams of this substance are produced?
4. Determine the number of moles and the concentrations of the following ions in solution

Mol K+1 = [K+1] =

Mol Cu+2 = [Cu+2] =

Mol PO4-3 = [PO4-3] =

Mol NO3-1 = [NO3-1] =

1. (6 points) Write the conventional, total ionic, and net ionic equations for the reaction that occurs between aqueous ammonia and nickel(II) nitrate.