

# Chapter 13 section 13.4 Exam

1. **(6 Point)** An aqueous solution is 22.0% rubidium chloride by mass. The density of the solution is 1.127 g/mL. What are the molality, the mole fraction, and the molarity of the solution?
2. **(6 points)** A sulfuric acid solution containing 571.6 g of  $\text{H}_2\text{SO}_4$  per liter of solution has a density of 1.329 g/cm<sup>3</sup>. Calculate the:
  - (a) Mass percentage of this solution
  - (b) The mole fraction of this solution
  - (c) The molarity of  $\text{H}_2\text{SO}_4$  of this solution