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## Honors Chemistry Concentrations of solutions II

1. If a water solution has a molarity of 2.7 M copper II chromate, CuCrO<sub>4</sub> determine its mole fraction if its density is 1.27 g/mL.

2. If a water solution has a mole fraction of .042 aluminum nitrate,  $Al(NO_3)_3$  determine its molarity if its density is 1.07 g/mL.

3. Calculate the molality of a 1.4 M solution of ammonium sulfate,  $(NH_4)_2SO_4$  in water, if the solution has a density of 1.09 g/mL.

4. Find the boiling point of the 2.00 m solution of a water solution of sodium chloride.

5. Find the boiling point of 131 g of Barium nitrate dissolved in 750. g of water

6. Find the freezing point of a 1.50 m water solution of calcium chloride.

7. Find the freezing point of 126 g of table sugar,  $C_{12}H_{22}O_{11}$  dissolved in 2500. g of water.