Chemistry 141 Name

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Quiz 9 (20 points) December 4, 2008

All work must be shown to receive credit.

=iMRT, Tb=*imkb,* Tf=*imkf*

R=0.0821 L atm/mol K = 62.4 L torr/mol K = 8.31 J/mol K

1. (8 points) An aqueous solution of a certain organic compound has a density of 1.063 g/mL, an osmotic pressure of 12.16 atm at 25.0oC, and a freezing point of -1.03oC. The compound is known not to dissociate in water. What is the molar mass of the compound? Kf(H2O)=1.86 oC/m