

## CHEE 210 Tutorial 1

2.7 A renowned laboratory reports quadruple-point co-ordinates of 10.2 mbar and 24.1 °C for the four-phase equilibrium of allotropic solid forms of the exotic chemical beta-miasmone. Evaluate this claim? Is it valid?

2.23 A stream of warm water is produced in a steady-flow mixing process by combining  $1.0 \text{ kg s}^{-1}$  of cool water at 25°C with  $0.8 \text{ kg s}^{-1}$  of cool water at 75°C. During the mixing heat is lost to the surroundings at the rate of  $30 \text{ kJ s}^{-1}$ . What is the temperature of the warm water stream? Assume that the specific heat of water is constant at  $4.18 \text{ kJ kg}^{-1} \text{ K}^{-1}$ .

From Smith, Van Ness and Abbot, Seventh Edition, McGraw-Hill Publishers.