

CHEE 210 Tutorial 1

Wednesday Jan 20, 2010

Grp A 3:30 WLH 210

Grp B 4:30 WLH 210

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?

2.37 The conditions of a gas change in a steady-flow process from 20°C and 1000 kPa to 60°C and 100 kPa. Devise a reversible non-flow process (any number of steps) for accomplishing this change of state, and calculate  $\Delta U$  and  $\Delta H$  for the process on the basis of 1 mol of gas. Assume for the gas that  $PV/T$  is constant,  $C_V = (5/2)R$  and  $C_P = (7/2)R$ .