Homework #9 Chemistry 1013 (Fong) due Friday 1 Dec 2017 25 pts
Your name Answers **(1 pt)** **(in class)**

9.1 Use Figure 7.2 on page 241 of the text to classify the intermolecular force or forces holding the following materials together: (10 pts/2 pts each)

O_2 London Dispersion

NH_3 dipole-dipole, dispersion, H-bond

LiCl Ionic

He Dispersion

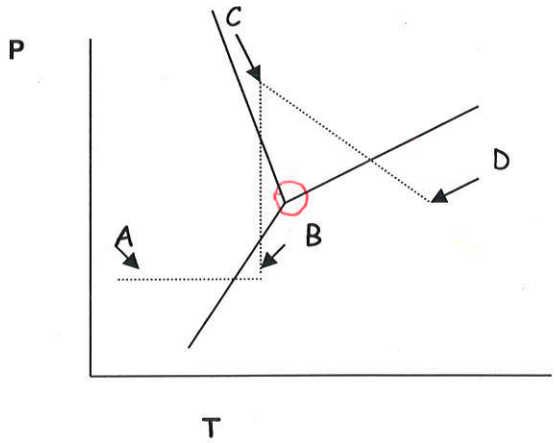
SO_2 Dispersion + Dipole-Dipole

9.2. Which molecule in the pairs below will have stronger intermolecular forces holding it together? (circle choice) (3 pts total)

(I_2) vs. F_2 (H_2O) vs. H_2S CO_2 vs. (HI)

9.3 Describe the phase changes that occur along the path A-→B-→C-→D using the phase diagram below:

path	phase change(s)
A-→B	s → g
B-→C	g → s → ℓ
C-→D	ℓ → g

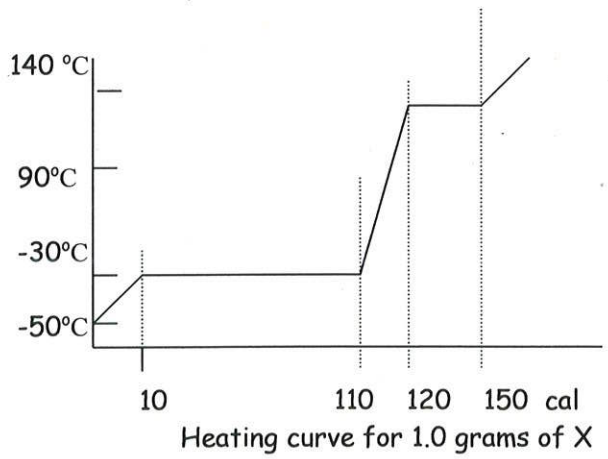


b) circle the 'triple point'

c) which path(s) involve melting of a solid ?
B→C

d) which path(s) involve sublimation of a solid
A→B

9.4 a) What is the melting point of X -30°C
b) What is the freezing point of X -30°C
c) What is the boiling point of X 140°C
d) How many calories are needed to convert 2 grams of solid X at –50°C to gas at 140°C 300 (2 pts)



Heating curve for 1.0 grams of X