Liquids, Solids, and Intermolecular Forces Practice Questions

CHM 2046 Tutoring w/ Josie M.

1. Which atom experiences the greatest dispersion force? Explain.

   Br F Cl I

2. Identify which states of matter are low-density and which are high-density:

3. Determine the IMFs present in each compound:

   H_2O:

   CH_3Cl:

4. Explain the difference between an amorphous and a crystalline solid:

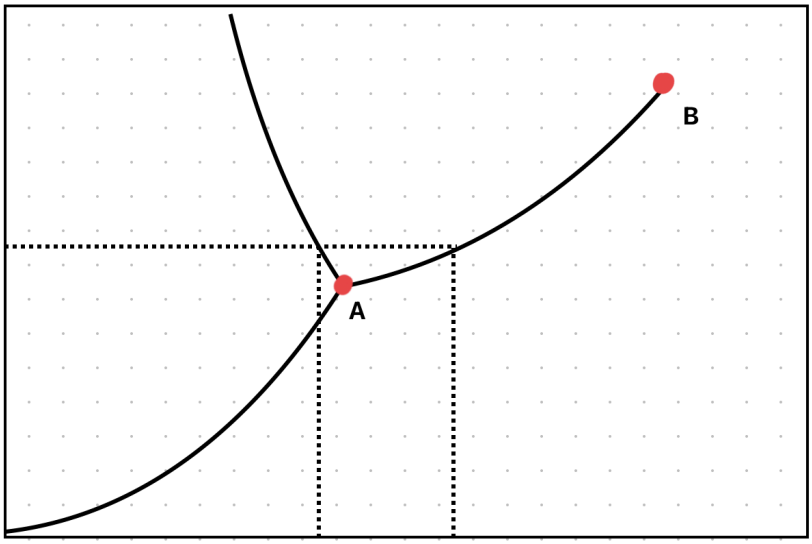
5. Order the following compounds from lowest to highest boiling points

   HF HCl C_3H_8 F_2

6. Relate dynamic equilibrium to vaporization and condensation.

7. A beaker containing 150.0 mL of water is heated to its boiling point. How much heat in J is required to vaporize it? The density is 1.00 g/mL.

8. Identify and define the triple point and critical point on the phase diagram below:



A.

B.

9. Benzene (C_6H_6) has a vapor pressure of 0.1252 atm at 25.0°C and a normal boiling point of 80.1°C. Find ΔH_{vap} for benzene in kJ/mol.

10. Using the following phase diagram, determine which phase change occurs going from a temperature of -80℃ to -50℃ at a constant pressure of 3 atm.

