

Name:

Quiz Chapter 10

1. (3 points) List the major types of intermolecular forces we have had so far in class in order of increasing strength.

2. (4 points) Which substance in the following pairs will have the greater intermolecular force? Which one will have the greater surface tension?

A. PF_3 or PF_5

B. SO_3 or SO_2

3. (2 points) How do you think boiling point will correlate with intermolecular forces?

4. (4 points) When placed in a glass tube, the meniscus of water will look like A below, while the meniscus of mercury will look like B. Explain

A

B

5. (4 points) Given the Bragg equation; $n\lambda=2d \sin\theta$, and the fact that the diffraction angle for 1.54 Å X-rays is 13.64° when $n=1$, calculate the interplanar distance for germanium.

6. (3 points) How many atoms are there in the unit cell of a

A. simple cubic lattice

B. Body-centered cubic lattice

C. Face-centered cubic lattice