

Chem 2202 Worksheet 7

(1) Complete the following table:

Chemical Formula	Electron Dot Diagram	3d Stick Structure (include bond dipole if polar)	Shape
CCl_3F			
CNH_3			
HSi_2I			
NCl_3			

(2) For Each of the following chemicals, state what type of intermolecular forces are present. Include the number of electrons for London Dispersion forces.

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|------------------------------|--------------------------------------|------------------------------------|-----------------------------------|
| a. CCl_3F | b. CNH_3 | c. HSi_2I | d. NCl_3 |
| e. C_4H_{10} | f. $\text{C}_2\text{H}_5\text{NH}_2$ | g. $\text{C}_5\text{H}_9\text{OH}$ | h. $\text{C}_3\text{H}_7\text{F}$ |

(3) For each of the following pairs of chemicals, state which will have the higher boiling point. Explain your choice.

- C_2H_6 and CH_3F
- $\text{C}_4\text{H}_7\text{Cl}$ and $\text{C}_2\text{H}_5\text{OH}$
- NCl_2F and C_8H_{18}
- $\text{C}_{15}\text{H}_{30}$ and $\text{C}_3\text{H}_7\text{OH}$
- $\text{C}_2\text{H}_4\text{F}_2$ and CH_3NH_2