

Assignment 1, Due: Sep. 19, 2014

1. Draw the molecular structure of the following compounds and name the shape according to the VSEPR theory, discuss the polarity of the molecule

NF_3 , ClOF_2 (Cl is center atom), SF_4 , BrF_3 , XeF_2

2. Describe the intermolecular forces in the following compounds and discuss their solubility in water.

BaCO_3 , Cl_2 , I_2 , ethanol ($\text{C}_2\text{H}_5\text{OH}$),

hexanol ($\text{C}_6\text{H}_{13}\text{OH}$), ethanoic acid (CH_3COOH), oleic acid
($\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)_7\text{COOH}$)