

WS F: Intermolecular Forces

| Substance #1 | Predominant Intermolecular Force | Substance #2 | Predominant Intermolecular Force | Substance with Higher Boiling Point |
|------------------------|----------------------------------|--------------------|----------------------------------|-------------------------------------|
| (a) HCl(g) | | I ₂ | | |
| (b) CH ₃ F | | CH ₃ OH | | |
| (c) H ₂ O | | H ₂ S | | |
| (d) SiO ₂ | | SO ₂ | | |
| (e) Fe | | Kr | | |
| (f) CH ₃ OH | | CuO | | |
| (g) NH ₃ | | CH ₄ | | |
| (h) HCl(g) | | NaCl | | |
| (i) SiC | | Cu | | |

2. Rank the following substances in order from lowest to highest melting point.

CO₂, NaCl, Ag, H₂O, He, HBr

3. Rank the following substances in order from lowest to highest freezing point.

H₂O, Ca₃(PO₄)₂, Cr, C₂H₆, OF₂

4. Rank the following substances in order from highest to lowest boiling point.

Cl₂, Ne, Ca, Cr(OH)₃, CH₃CH₂OH, Diamond