

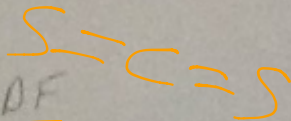
Intermolecular Forces - Key

For questions 1-5, identify the main type of intermolecular force in each compound:

1) carbon disulfide

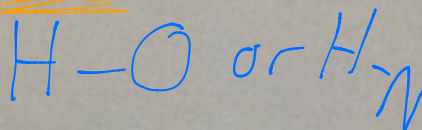
Van der Waal forces

= LDF



2) ammonia

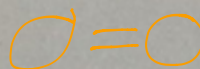
Hydrogen bonding



3) oxygen

Van der Waal forces

= LDF



4) CH_2F_2

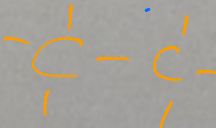
Dipole-dipole forces

polar!

5) C_2H_6

Van der Waal forces

= LDF



Rank the following compounds by increasing melting point:

6) C_2H_6 , C_2H_5OH , C_2H_5F
 C_2H_6 ($-183.3^\circ C$), C_2H_5F ($-143.2^\circ C$), C_2H_5OH ($-117.3^\circ C$)

7) H_2S , H_2O , H_2
 H_2 ($-259.3^\circ C$), H_2S ($-85.5^\circ C$), H_2O ($0^\circ C$)

8) BBr_3 , Bi_3 , BCl_3
 BCl_3 ($-107.3^\circ C$), BBr_3 ($-46^\circ C$), Bi_3 ($49.9^\circ C$)

All melting points were taken from The Handbook of Chemistry and Physics, 72nd Edition, by the Chemical Rubber Company. If you don't have a CRC, you need one because it contains all the reference material you'll ever need!