

Name: _____

Section: _____

Workshop #11: Intermolecular Forces

For the first part of this workshop, identify the type of crystal structure (Ionic, Molecular Polar, Molecular Nonpolar, Network-Covalent, or Metallic) present. Then determine the type of binding forces present in each (Ionic Bonds, Covalent Bonds, Metallic Bonds, London Dispersion Forces, Dipole Forces, and/or Hydrogen Bonds).

Substance	Type of Crystal	Type of Binding Force(s)
Ar		
CH ₃ Cl		
CH ₃ OH		
BCl ₃		
CH ₃ OCH ₃		
HF		
Hg		
KCl		
N ₂		
SiC		
CH ₃ COOH		
Diamond		

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Circle the species with the higher boiling point and *briefly* justify your choice below.

1) Kr _____ or Xe _____
Justification:

2) C₂H₅OH _____ or CH₃OCH₃ _____
Justification:

3) NaF _____ or MgO _____
Justification:

4) N₂ _____ or NO _____
Justification:

5) CH₄ _____ or SiH₄ _____
Justification:

6) HF _____ or HI _____
Justification:

7) CO₂ _____ or NH₃ _____
Justification:

8) CH₄ _____ or CCl₄ _____
Justification:

9) Cr _____ or Si _____
Justification:

10) H₂O _____ or SiO₂ _____
Justification:

11) MgO _____ or BaO _____
Justification:

12) CH₃CH₂CH₂CH₂CH₃ _____ or (CH₃)₂CHCH₂CH₃ _____
Justification: