

# 13 • IMF's, Liquids, & Solids

## IMF'S IN SOLIDS

Indicate the **strongest** IMF holding together crystals of the following:

		Molecular Crystal			Metal	Ionic Crystal	Network Solid
		London forces	Dipole-dipole attractions	Hydrogen Bonds	Metallic Bonds	Ionic Bonds	Covalent Bonds
1.	NH <sub>3</sub>						
2.	Kr						
3.	HCl						
4.	F <sub>2</sub>						
5.	KMnO <sub>4</sub>						
6.	NaCl						
7.	SO <sub>2</sub>						
8.	CO <sub>2</sub>						
9.	C <sub>3</sub> H <sub>8</sub>						
10.	CH <sub>4</sub>						
11.	CH <sub>3</sub> Cl						
12.	HF						
13.	C <sub>6</sub> H <sub>6</sub>						
14.	NO						
15.	H <sub>2</sub> SO <sub>4</sub>						
16.	WC						
17.	Si						
18.	SiO <sub>2</sub>						
19.	C <sub>(graphite)</sub>						
20.	N <sub>2</sub>						
21.	CH <sub>3</sub> OH						
22.	Ag						
23.	(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> NH						
24.	NaOH						
25.	Al						
26.	PCl <sub>3</sub>						

		Molecular Crystal			Metal	Ionic Crystal	Network Solid
		London forces	Dipole-dipole attractions	Hydrogen Bonds	Metallic Bonds	Ionic Bonds	Covalent Bonds
27.	XeF <sub>4</sub>						
28.	He						
29.	Na						
30.	CO						
31.	Ar						
32.	Ba(OH) <sub>2</sub>						
33.	O <sub>2</sub>						
34.	H <sub>2</sub> O						
35.	NH <sub>4</sub> Cl						
36.	Hg						
37.	P <sub>4</sub>						
38.	HCN						
39.	CaO						
40.	N <sub>2</sub> H <sub>2</sub>						
41.	H <sub>2</sub>						
42.	Pb						
43.	XeF <sub>2</sub>						
44.	SF <sub>4</sub>						
45.	SiC						
46.	Si <sub>4</sub> H <sub>10</sub>						
47.	PH <sub>3</sub>						
48.	SiH <sub>4</sub>						
49.	H <sub>2</sub> Se						
50.	C <sub>2</sub> H <sub>2</sub>						
51.	I <sub>2</sub>						
52.	Cu						
53.	AsH <sub>3</sub>						
54.	K <sub>2</sub> S						