



# STRUCTURE & BONDING (D)

1 Give the formula and structure type of the following substances.

Name	Formula	Structure type				
		Monatomic	Molecular	Giant covalent	Ionic	metallic
aluminium hydroxide						
ammonium sulfate						
ammonia						
potassium						
diamond						

2 Complete the table about the following molecules and ions.

Molecule	PCl <sub>3</sub>	H <sub>2</sub> S	CF <sub>4</sub>
Sketch of shape (including lone pairs)			
Name of shape			
Bond angles			
Does the molecule contain polar bonds?			
Is the molecule polar?			
Van der Waals' forces between molecules?			
Dipole-dipole forces between molecules?			
Hydrogen "bonds" between molecules?			

3 Explain why sulfur (S<sub>8</sub>, 115°C) has a higher melting point than white phosphorus (P<sub>4</sub>, 44°C)

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(3)