



IONIC & MOLECULAR SUBSTANCES 2

- 1) Which of the following substances could be simple molecular and which are ionic? Some are neither!

	CaF ₂	NO ₂	Au	Na ₂ CO ₃	Al ₂ O ₃	CO	C ₂ H ₆ S	Ar	PH ₃
ionic									
simple molecular									
neither									

- 2) Look at the properties of the following substances.

Substance	Melting point (°C)	Boiling point (°C)	Electrical conductivity as	
			solid	liquid
P	-48	125	does not conduct	does not conduct
Q	1036	1835	does not conduct	conducts
R	3405	4278	does not conduct	does not conduct
S	649	1384	does not conduct	conducts
T	98	520	conducts	conducts
U	1830	2472	conducts	conducts

- a) Which of these compounds could have an ionic structure?
- b) Which of these compounds could have a simple molecular structure?

- 3) Complete the table to show stick and/or dot-cross diagrams for these molecules.

Molecule	Stick diagram	Dot-cross diagram
H ₂ S	$\text{H}-\text{S}-\text{H}$	
C ₂ H ₂	$\text{H}-\text{C}\equiv\text{C}-\text{H}$	
PF ₃		

