



CHEMISTRY ONLINE
— **TUITION** —

Phone: +442081445350

www.chemistryonlinetuition.com

Email: asherrana@chemistryonlinetuition.com

CHEMISTRY

MULTIPLE CHOICE - 1

CHEMICAL BONDING

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CHEMICAL BONDING - 1

1) **Helping concepts**

A cation with a high charge and small size has a high charge density and hence a high polarizing power.

Al^{3+} has the highest charge and smallest size among the 4 options.

2) **Helping concepts**

There are covalent bonds between H and O in a molecule, and hydrogen bonds between H and O of different molecules.

3) **Helping concept**

CO_2 is simple molecular. Even in the solid state, the molecules are still held together only by van der Waals forces. The forces of attraction in the other solids are (B) metallic bonds; (C) hydrogen bonds; (D) ionic bonds.

4) **Helping concept**

Sulfur exists as S_8 molecules.

A: giant ionic lattice

B: giant metallic lattice

C: giant covalent lattice

5) **Helping Concepts**

$\text{Mg}^{2+}\text{O}^{2-}$ is an ionic compound. It has a giant ionic lattice with strong ionic bonds between Mg^{2+} and O^{2-} .

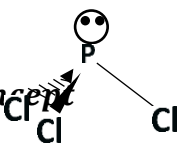
6) **Helping Concept**

Being a metal, Cu has a sea of delocalized electrons. When a potential difference is applied. These elements move towards the positive potential.

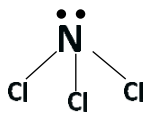
7) **Helping Concept**

PCl_3 is trigonal pyramidal.

8) **Helping Concept**



6 bonding electrons is equivalent to 3 bond pairs of electrons.

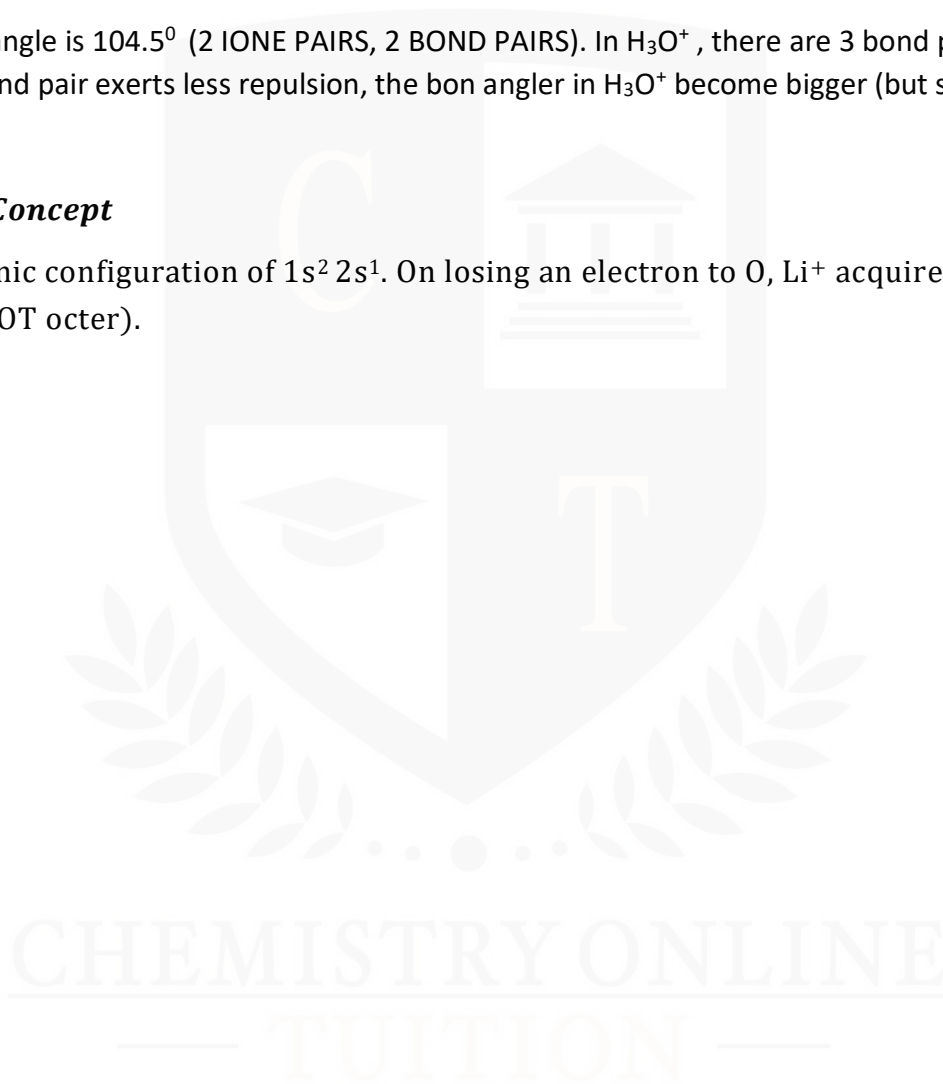


9) *Helping Concept*

In H_2O , the bond angle is 104.5° (2 IONE PAIRS, 2 BOND PAIRS). In H_3O^+ , there are 3 bond pairs and only 1 lone pair. Since bond pair exerts less repulsion, the bond angle in H_3O^+ becomes bigger (but still less than 109.5°).

10) *Helping Concept*

Li has an electronic configuration of $1s^2 2s^1$. On losing an electron to form Li^+ , it acquires a duplet configuration (NOT octet).



I am Sorry !!!!!



DR. ASHAR RANA
M.B.B.S / MS. CHEMISTRY



- Founder & CEO of Chemistry Online Tuition Ltd.
- Completed Medicine (M.B.B.S) in 2007
- Tutoring students in UK and worldwide since 2008
- CIE & EDEXCEL Examiner since 2015
- Chemistry, Physics, Math's and Biology Tutor

CONTACT INFORMATION FOR CHEMISTRY ONLINE TUITION

- UK Contact: 02081445350
 - International Phone/WhatsApp: 00442081445350
 - Website: www.chemistryonlinetuition.com
 - Email: asherrana@chemistryonlinetuition.com
- Address: 210-Old Brompton Road, London SW5 OBS, UK