Ionic Bonding

From Ions to Ionic Bonds

Ionic Bonds are the connection between to atoms due to the transfer of electrons between a metal (*+ ion*) and non-metal (- *ion*)

Cation (+ ion): Ions formed due to gaining electrons (*metals*)

Anion (- ion): Ions formed due to losing electrons (*non-metals*)

Group	Val e^-	Charge	Group	Val e^-	Charge	Group	Val e^-	Charge
1A (1)	1	1+	**3A (13)**	3	3+	**6A (16)**	6	2-
2A (2)	2	2+	**4A (14)**	4	4+ / 4-	**7A (17)**	7	1-
1B – 10B (3 – 12)	2 (Varies)	Varies	**5A (15)**	5	3-	**8A (18)**	8	No Charge

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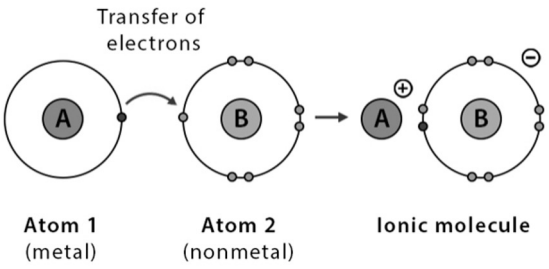
Ionic Bonding

Mechanics of the Ionic Bond

Ionic Bonding is the process of forming an ionic bond (*connection between ions*) through the transfer of electrons (e^-) between ions



The transfer of electrons is based on the **octet rule**, the rule that states atoms should have either 0 (*metals*), or 8 (*non-metals*) valence electrons in their ion form (*cation and anion*)

Atoms that are part of an ionic bond are connected together through the + and – ion attraction in an ionic compound (*cation to anion attraction*)

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