

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

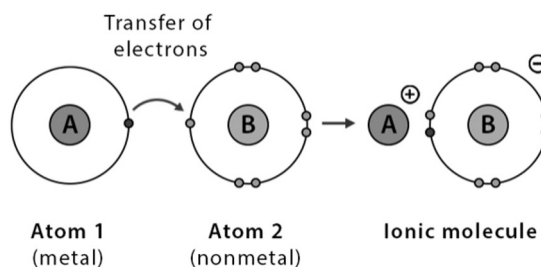
2

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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*)

3