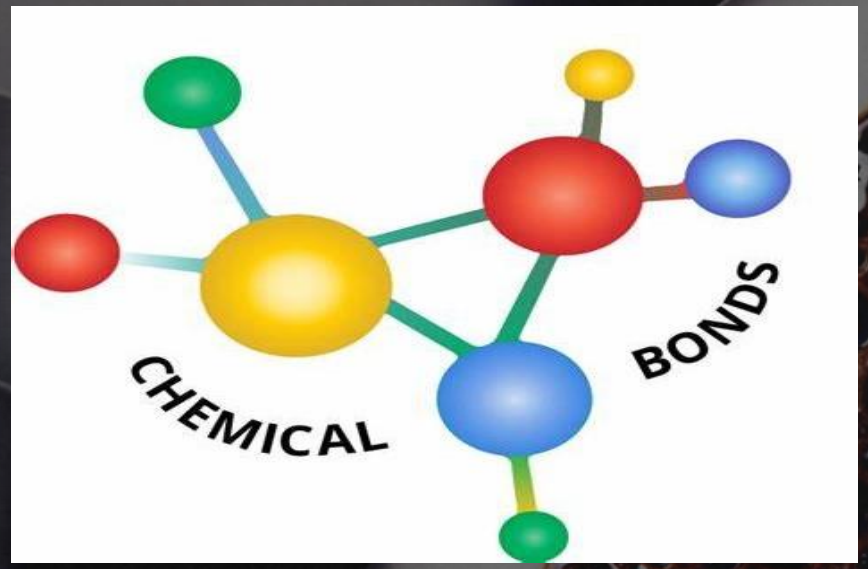

CHEMICAL BONDING

BY

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COMPOUND

A STABLE COMPOUND OCCURS WHEN TOTAL ENERGY OF COMBINATION IS LOWER THAN TOTAL ENERGY OF THE SEPARATED ATOMS.

ELEMENTS & COMPOUNDS

Why do elements react to form compounds ?

What are the forces that hold atoms together in molecules ?
and ions in ionic compounds ?

Electron configuration predict reactivity Element Electron configurations

Mg (12e) 1S 2 2S 2 2P 6 3S 2 Reactive

Mg 2+ cation(10e) [Ne] Stable

Cl (17e) 1S 2 2S 2 2P 6 3S 2 3P 5 Reactive

Cl anion (18e) [Ar] Stable

CHEMICAL BONDS attractive force holding atoms together

Single Bond: involves an electron pair e.g. H2

Double Bond: involves two electron pairs e.g. O2

Triple Bond : involves three electron pairs e.g. N2

TYPES OF CHEMICAL BONDS

Ionic

Covalent

IONIC AND COVALENT BONDS ARE EXTREME OPPOSITE

Let's Define Bonds

The Two Extremes IONIC BOND results from the transfer of electrons from a metal to a nonmetal.

COVALENT BOND results from the sharing of electrons between the atoms. Usually found between nonmetals.

Thank You