

### Organic chemistry (basics)

>organic chemistry-	'chemistry of specific carbon compound'
>nature of carbon atom	- tetra valency, catenation, isomerism
*[catenation	tendency of an element to form chains of identical atoms]
*[isomerism	-same molecular formula but different structural formula]
*Hydrocarbons	-organic compounds containing 'C' and 'H' atoms only
*Nomenclature	-system of assignment of names to organic compounds
*Homologous series	-series of organic compounds where the successive members follow a regular structural pattern differing by a 'CH <sub>2</sub> ' group

### organic v/s inorganic

ORGANIC	INORGANIC
>covalent	>electrovalent (ionic)
>low melting/boiling points	>high melting/boiling points
>insoluble in water/ soluble in organic solvents	>soluble in water/ insoluble in organic solvents
>non-conductors of electricity	>good conductors of electricity
>combustible	>non-combustible
>volatile	>non-volatile
>exhibits catenation and isomerism	>doesn't exhibit catenation and isomerism

### CLASSIFICATION

ALIPHATIC (hydrocarbons)- open chains/straight chain	ATROMATIC (cyclic)- closed chains
>saturated (cannot take up more alkanes)	>homocyclic (only carbon and hydrogen atoms)
>unsaturated (double bond/triple bond-can take up more alkanes)	>heterocyclic (C,O,N,H, and S atoms)

### NOMENCLATURE

STEM	number of carbons
meth-	1
eth-	2
prop-	3
but-	4
penta-	5
hexa-	6
hepta-	7
octa-	8
nona-	9
deca-	10
<b>stem/suffix</b>	.
-ane	Alkanes (single bonds)



### NOMENCLATURE (cont)

-ene Alkenes (double bonds)

-yne Alkynes (triple bonds)

### ISOMERISM

*chain arrangement*

*position of functional groups*

*geometrical arrangement of atoms around double bond*

C

By **Sushi** (aishanya\_..)  
[cheatography.com/aishanya/](https://cheatography.com/aishanya/)

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Page 3 of 3.

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