# PHARMACEUTICAL ORGANIC CHEMISTRY-II- BP301T

UNIT: 4 Polynuclear hydrocarbons

CLASS:1

**TOPIC:** Polynuclear hydrocarbons

## POLY NUCLEAR HYDRO CARBONS

It is defined as the many nucleus present in basic structure having carbon & hydrogen atoms.

Poly means many

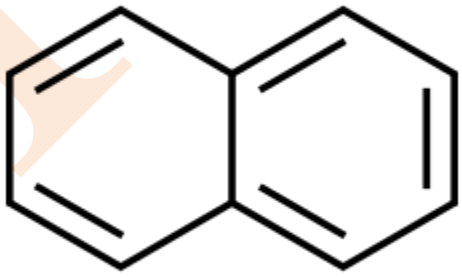
Nuclear means nucleus

Hydro carbons mean presence of carbon & Hydrogen.

Examples:

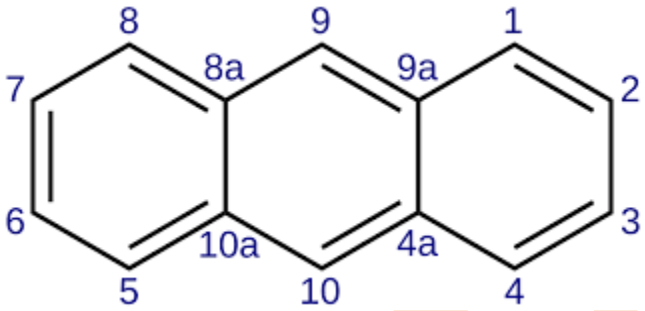
### Naphthalene:

It is the simplest polycyclic aromatic hydrocarbon, and is a white crystalline solid with a characteristic odour. As an aromatic hydrocarbon, naphthalene structure consists of a fused pair of benzene rings.



### Anthracene:

Anthracene is a solid polycyclic aromatic hydrocarbon (PAH) of formula $C_{14}H_{10}$, consisting of three fused benzene rings. It is a component of coal tar. Anthracene is used in the production of the red dye alizarin and other dyes. Anthracene is colourless but exhibits a blue (400–500 nm peaks) fluorescence under ultraviolet radiation.




**Phenanthrene:**

Phenanthrene is a polycyclic aromatic hydrocarbon (PAH) with formula $C_{14}H_{10}$, consisting of three fused benzene rings. It is a colourless, crystal-like solid, but can also appear yellow. Phenanthrene is used to make dyes, plastics and pesticides, explosives and drugs. It has also been used to make bile acids, cholesterol and steroids.