

SUBJECT - CHEMISTRY

CLASS - B.Sc (Sub./Gen) PART - II

GROUP - C

TOPIC - aromaticity

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Q Write a short note on aromaticity or, aromatic sextet, or, aromatic character.

Ans. Organic Compounds which resemble benzene in their chemical behaviours are said to show aromatic character or aromaticity.

Characteristics of aromatic Compounds:

- (a) Their molecular formula suggest a high degree of unsaturation but they are resistant to addition reaction opposed to unsaturated compounds.
- (b) They undergo electrophilic substitution reaction e.g halogenation, F.C reaction, nitration sulphonation etc.
- (c) They have unusual stability as manifested by low heats of hydrogenation and combustion
- (d) They are cyclic polyenes.
- (e) They obey Huckel's $(4n+2)\pi$ electrons rule,
- (f) They are planar molecules.
- (g) They have cyclic π -electron clouds above and below the plane of the molecule.

Benzene, naphthalene, phenanthrene, anthracene etc show aromatic character.