

Benzene.

It is a cyclic and planar compound. It has a p-orbital on each carbon of the ring involved in a double bond. It has three double bonds and six π electrons, which is in accordance with Huckel rule:

$$4n + 2 = 6 \quad \text{or} \quad 4n = 6 - 2$$

$$\therefore 4n = 4 \quad \text{and} \quad n = 1$$

Cycloheptatriene. It is cyclic and planar. It has three double bonds and six π electrons.

Cyclooctatetraene. It is cyclic and has a p-orbital on each atom of the ring.

You don't manage people; you manage things. You lead people. -Admiral Grace Hooper.

2015

7	11	12	13	14	15	16	17
8	18	19	20	21	22	23	24
9	25	26	27	28			

09 The Huckel rule is
10 not satisfied, since there
11 are 8 π electrons.

$$4n + 2 = 8 \text{ equal}$$

$$4n = 6 \therefore n = 1.5$$

12
13 The compound is non
14 aromatic. Moreover, it
15 has been determined
16 that cyclooctatetraene
17 is not planar but
18 tub-shaped.
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