

Copy of a printed diagram referenced as "A) The O-hybrids of the carbon atoms of benzene. B) π [pi] -atomic orbitals in benzene and the Kekule pairing schemes"

Contributors

Fuller, Watson, 1935-

Publication/Creation

November 1963

Persistent URL

<https://wellcomecollection.org/works/adjktyr4>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution, Non-commercial license.

Non-commercial use includes private study, academic research, teaching, and other activities that are not primarily intended for, or directed towards, commercial advantage or private monetary compensation. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

first, for historically it is much the older. There are obviously two quite distinct ways in which we might pair the π orbitals in Fig. 2 (a). They are shown in Figs. 2 (b) and 2 (c). Neither of these systems which are 'structures' in the sense of § 5.5 has any

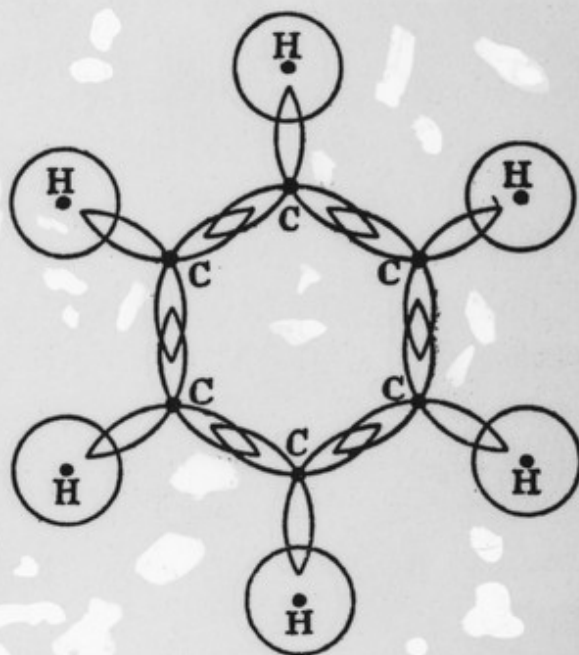
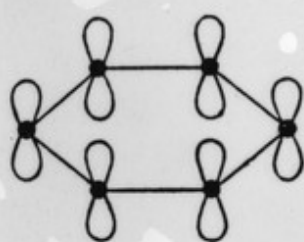
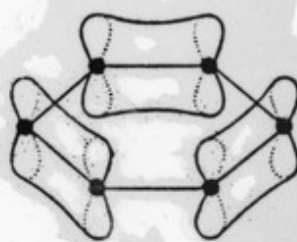


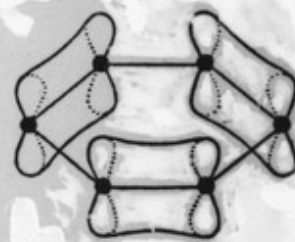
Fig. 2. The σ -hybrids of the carbon atoms of benzene.



(a)



(b)



(c)

The π -atomic orbitals in benzene (a), and the Kekulé pairing schemes (b, c).

greater merit than the other. Both must therefore appear in the complete wave function. Physically we may say that the benzene molecule behaves partly as if the bonds were in the one position, and partly as if in the other.

This is a mathematical statement about the Schrödinger wave