

an integer. In benzene, the delocalized molecular orbitals contain 6 pi electrons over six carbons essentially yielding half a pi bond together with the sigma bond for each pair of carbon atoms, giving a calculated bond number of 1.5. Furthermore, bond numbers of 1.1, for example, can arise under complex scenarios and essentially refer to bond strength relative to bond with order 1. So finally we can say that, In molecules

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often but not always yields similar results for bonds near their equilibrium lengths, but it does not work for stretched bonds.

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## Bond order BSc Part II

Bond order, as introduced by Linus Pauling, is defined as the difference between the number of bonds and anti-bonds.

The bond order itself is the number of electron pairs (bonds) between