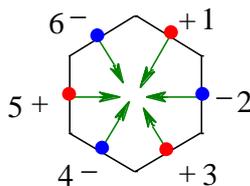


Graphical Abstract: Benzene on the Basis of the Three-Electron Bond.

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Using the concept of three-electron bond one can represent the actual electron structure of benzene, explain specificity of the aromatic bond and calculate the delocalization energy.



Note on the concept of three-electron bond.

In fact, the concept of a three-electron bond with a multiplicity of 1.5 is a logical continuation of the development of the science of chemical bonding. And of course, a three-electron bond deepens our understanding of the structure of chemical compounds, especially organic ones. For example, the nature of aromaticity becomes very clear and understandable, and follows from the structure of the benzene molecule itself. This also applies to the carboxylate anion, nitrate ion, carbonate ion, ozone, nitro compounds, etc.

Initially, the three-electron bond was introduced as an axiom. But the concept of a three-electron bond automatically and immediately solves the fundamental problem of organic and inorganic chemistry - the structures of all molecules can now be depicted using a single formula that correctly describes the properties of real molecules. Moreover, this formula is not virtual, but describes a real molecule. In the summer of 1995, an idea arose to explain the paramagnetism of the oxygen molecule through the introduction of a three-electron bond. Naturally, the transfer of the three-electron bond concept to benzene and other organic molecules was immediate and logical, since it is clear that this approach solves the fundamental problem of chemistry, that is, it will be possible to adequately describe the properties of molecules with one formula. In fact, in the three-electron bond, the theory of resonance and mesomerism found their logical conclusion. With a more detailed and in-depth study of the concept of a three-electron bond with a multiplicity of 1.5, you always get a more accurate explanation (or solution).