

Intramolecular hydrogen bonding in o-hydroxy aryl Schiff bases.

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This review is composed of several chapters dealing with research on the o-hydroxy aryl Schiff bases. The introduction comments on modern problems of quasi-aromatic formation which participates in o-hydroxy aryl Schiff bases as well as some potential applications of compounds of this type. The main part of the paper describes quantummechanical calculations of potential curves, electron-topological parameters depending on tautomeric equilibrium, the influence of substitution in the phenol ring and imine moiety, and the influence of environment on the potential curves. A difference between the impact of steric effect in o-hydroxy aryl Schiff bases and o-hydroxy benzoyl compounds is presented based on calculations of potential curve. A method of calculating the isotopic effect is described. A scheme of the "thermodynamic cycle" is presented estimating steric interrelations in the molecule and, in particular, the intramolecular hydrogen bonding energy.

Słowa kluczowe

Schiff Bases, Hydrogen Bonding, Intramolecular, o-hydroxy aryl, isotopic effect

Adres publiczny

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