

resonance

In the context of chemistry, the term refers to the representation of the electronic structure of a molecular entity in terms of contributing structures. Resonance among contributing structures means that the wavefunction is represented by 'mixing' the wavefunctions of the contributing structures. The concept is the basis of the quantum mechanical valence bond methods. The resulting stabilization is linked to the quantum mechanical concept of 'resonance energy'. The term resonance is also used to refer to the delocalization phenomenon itself.

See also: mesomerism

Source:

PAC, 1994, 66, 1077 (*Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994)*) on page 1161