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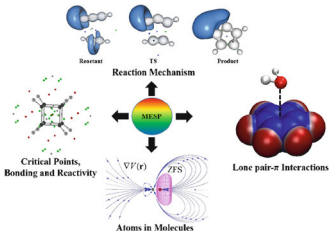
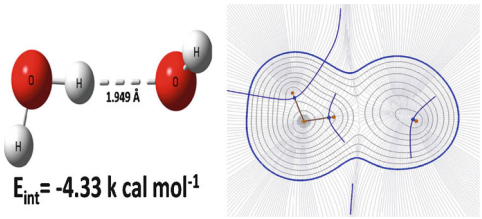
Special Issue **on CHEMICAL BONDING**
Guest Editors: Eluvathingal D. Jemmis, Elangannan Arunan and V. Subramanian

Perspective Articles

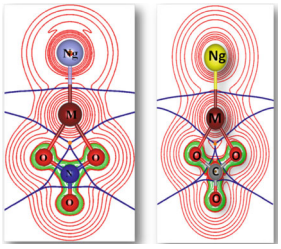


This perspective highlights the topographical analysis of molecular electrostatic potential (MESP) as a tool for understanding the bonding and reactivity patterns of molecules. It shows how the phenomena/concepts such as lone pairs, π-delocalization, arrows in reaction mechanism and atoms in molecules, etc., are brought out in a transparent way through the MESP topography mapping.

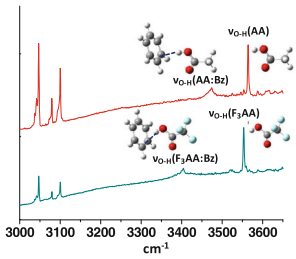


In this perspective article, the basic theory and applications of the "Quantum Theory of Atoms in Molecules" have been presented with examples from different categories of weak and hydrogen bonded molecular systems.

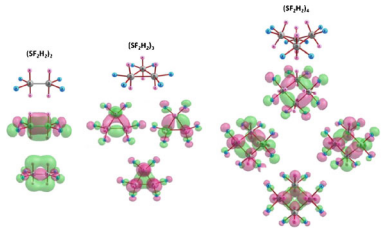
Regular Articles

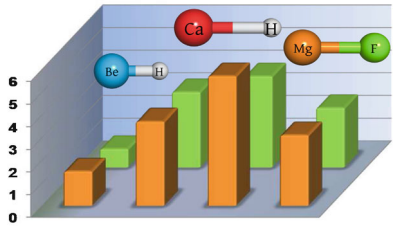


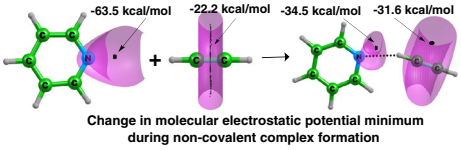
Different nitrates, sulfates and carbonates of noble metals (M = Cu, Ag, Au) can bind noble gas (Ng) atoms quite effectively. The M-Ng bonds in these compounds are found to be partially covalent in nature.

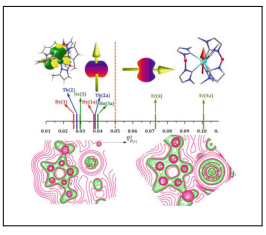


The spectral red-shifts of the probe ν_{O-H} bands of carboxylic acid-benzene π-hydrogen bonded complexes in an argon matrix were found to correlate with their respective aqueous phase acidities (pK_a), and are explained in terms of local charge transfer effects.









Cover picture: Controlling Magnetic-Anisotropy in Lanthanides using Agostic interactions. For details, see the paper by Tulika Gupta *et al*. (1615–1630)

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