Applications of the Intrinsic Electrophilicity and Nucleophilicity Indices

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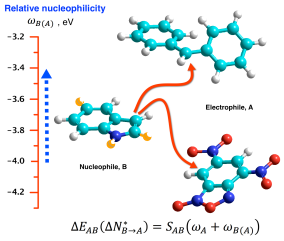
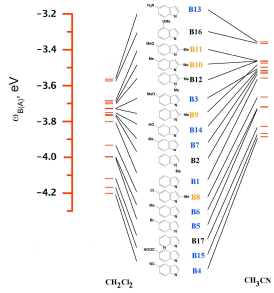


The suitability of intrinsic (i.e., electronic) relative indices for quantifying electrophilicity and nucleophilicity responses [1-5] is critically examined. Theoretical results are discussed within the framework of experimental reactivity categorization based on the linear free energy methodology developed by Mayr and coworkers [6-11]. The polar nucleophilic/electrophilic activation (as measured through simple descriptors) is shown to be a key factor driving the initial rate-determining steps of the electrophile-nucleophile coupling.



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