

From the kinetics one may often assess the relative importance of these parameters. Of particular interest is the effect of the molecular structure of the catalyst on its effectiveness. Molecular structure in anion transfer catalysts affects not only the ability of the catalyst to transfer anions from solid or aqueous phases into organic phases, but it also affects the ability of the catalyst to activate the anion for its reaction with the organic phase reactant. The lecture to be presented is a summary of work dealing with the dependence of the kinetics of some phase transfer catalyzed reaction systems on catalyst structure, and of how these structures influence anion activation.

Structures and Ambident Reactivity of β -keto Enolates Ion-Pairs

G. BRAM

Groupe de Recherches No 12, CNRS, 2 - 8, rue Henri-Dunant, F 94320 Thiais, France

Relationships between conformations [1] and ambident reactivity [2] of enolates of β -dicarbonyl compounds will be discussed. Some structural features of these enolates will be presented: X-ray diffractions [3-6], ^1H NMR [4, 7, 8], ^{13}C NMR [9-11],

^{23}Na HMR [12], ^7Li NMR [4], U.V. [1, 11] and I.R. spectroscopies [4-6, 11, 13]. The discussion will be mainly focused on the structure and the reactivity of 'crowned' and 'cryptated' β -keto enolates ion-pairs.

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