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α-effect

A positive deviation of an α-nucleophile (a nucleophile bearing an unshared pair of electrons on an atom adjacent to the nucleophilic site) from a Brønsted-type plot of $\log k_{nuc}$ vs. $\mathrm{p}K_a$ constructed for a series of related normal nucleophiles. More generally, it is the influence of the atom bearing a lone pair of electrons on the reactivity at the adjacent site.

See also: Brønsted relation

The use of the term has been extended to include the effect of any substituent on an adjacent reactive centre, for example in the case of the 'α-silicon effect'.

Source:

PAC, 1994, *66*, 1077 *(Glossary of terms used in physical organic chemistry (IUPAC Recommendations 1994))* on page 1088

