Nucleophilicity scale for n- and ?-nucleophiles

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A recently introduced empirical nucleophilicity index for a series of n- and ?-nucleophiles was evaluated. The index is based on the frontier molecular orbital information of the nucleophile and its electrophilic partner. The model is validated against kinetic data of alkenes, phosphanes, phosphites and amines interacting with the corresponding electrophilic partner. The predictive character of this index is tested for some nucleophiles. © 2006 Elsevier B.V. All rights reserved.