

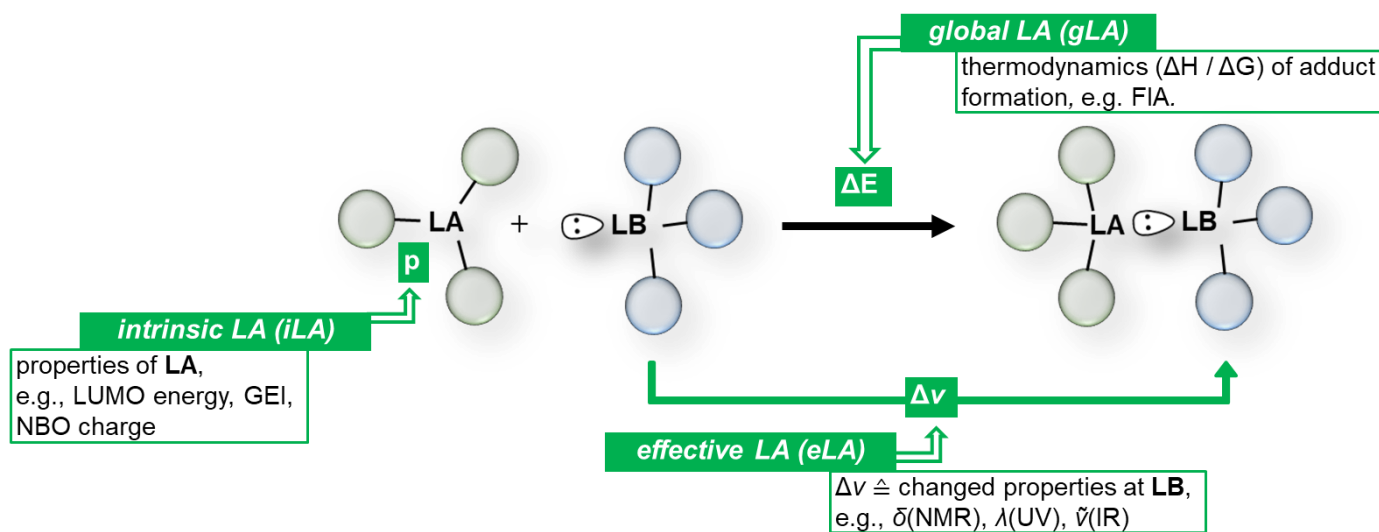


Basic and Applied Considerations of Lewis Acidity with a Focus on Silicon

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In the first part of this talk, remarks on the scaling and parametrization of Lewis acidity will be made. The concept will be elaborated based on a recently suggested classification of global, effective and intrinsic Lewis acidity.^[1] Steps toward machine learning models for the prediction of dative bonding will be shown, the affinity data analyzed by statistical correlation and the importance of Pearson's HSAB principle will be discussed. The second part covers our synthetic and theoretical advances in the field of strong Lewis acids with a focus on silicon.



References

¹L. Greb, *Chem. Eur. J.* **2018**, 24, 17881-17896; P. Erdmann, L. Greb, *Angew. Chem. Int. Ed.* **2022**, 61, e202114550.