



Quo Vadis Chemie

Developing Organocatalysts for Enantioselective Aldol-Type Reactions



which will be presented by

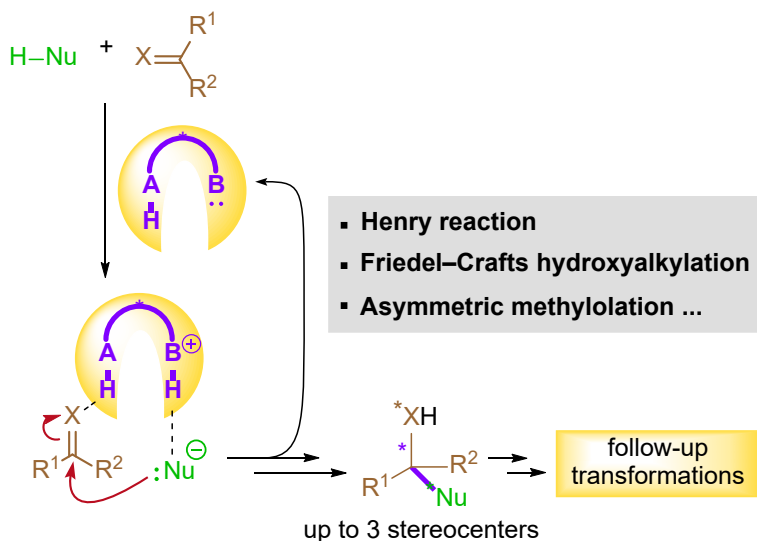
Dr. Jan OTEVŘEL

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on 30.10. at 15:40

the Lecture Hall CH2, the School of Chemistry Building, FoS CU, Hlavova 8, Praha 2

Abstract: From a broader perspective, aldol-type reactions encompass a plethora of fundamental chemical transformations embodied by the addition of compounds with active hydrogen to molecules bearing a carbonyl or extended carbonyl functionality. Despite the relative attractiveness of chiral aldol units for the construction of bioactive scaffolds, performing these reactions in an enantioselective fashion and downstream chemistry of enantioenriched aldol adducts are both far from trivial.



Most products are prone to retro-aldol cleavage and elimination, resulting in a possible undesired epimerization or dehydration during isolation or a subsequent reaction sequence.

Furthermore, lower aliphatic aldehydes are gases or low-boiling liquids requiring special procedures for handling. The above aspects represented just a fraction of the challenges to achieving high enantioselectivity for aldol-type processes while developing and screening chiral bifunctional hydrogen bond donor organocatalysts in our group.