

Research Project

Stereoselective, Catalytic Annulation Methods to Create Structurally Well-Defined Scaffolds

Third-party funded project

Project title Stereoselective, Catalytic Annulation Methods to Create Structurally Well-Defined Scaffolds

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Organisation / Research unit

Departement Chemie / Organische Chemie (Sparr)

Department

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Status Completed

Structurally well-defined objects are the elements required for the rational design of molecular backbones. The development of novel synthetic methods for the formation of new aromatic rings will provide unique scaffolds, which are not readily accessible otherwise. The catalyst controlled stereoselective arene-forming aldol condensation to form compounds with axial, helical or planar chirality will be investigated in detail. In the examined cascade reactions, the stereochemical information of small amine catalysts is transferred into new chirality elements leading to different, structurally distinct molecular architectures. The well-defined scaffolds will subsequently be employed to position various groups into a predictable spatial arrangement with respect to each other.

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Published results

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