

Enantiospecific couplings of secondary and tertiary boronic esters.

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A great amount of research has been dedicated in recent decade towards developing methods that facilitate the construction of 3D scaffolds of molecules. This comes as a direct consequence of a realisation that saturated molecules interact better with biological receptors than flat, unsaturated structures. There is a strong interest from pharmaceutical industry as it hopes to explore undiscovered chemical space using saturated molecules. Scientific community is investing a lot of effort to enable this goal, mainly by utilisation of established methods such as Suzuki-Miyaura cross-coupling. This Nobel Prize winning process has opened doors to a wide range of stereospecific reactions that enable the synthesis of tertiary carbon centres with high enantiomeric enrichment. This talk will focus on a new process developed in Aggarwal group that allows for the synthesis of tertiary and all-carbon quaternary centres in a transition metal free transformation.

