

Practical Organic Chemistry in Pharmaceutical Industry

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Practical organic chemistry plays a crucial role in the contemporary drug discovery and development. Since many drugs are launched as chiral molecules, one of the key challenges for the asymmetric synthesis of drug substances is the efficient stereocontrol for the establishment of the desired chiral centers. The catalytic asymmetric reactions are highly desirable for these asymmetric syntheses since only a catalytic amount of expensive reagents/catalysts needs to be employed. In this presentation, a few novel catalytic asymmetric transformations will be illustrated for the synthesis of several structurally complex drug targets. Furthermore, a few interesting examples of heterocycle synthesis will be described.