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综述与进展

酶-过渡金属配合物催化的动态动力学拆分研究进展

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摘要 动态动力学拆分是合成具有光学活性化合物最方便和最有效的方法之一.
酶和金属配合物的结合扩展了这个方法的使用范围,
该方法的主要特征是用酶催化拆分和金属催化原位外消旋化未反应的底物, 克服了经典动力学拆分最高产率只有50%的缺陷. 概述了近几年这方面的研究进展.

关键词 动态动力学拆分 酶 过渡金属催化剂
分类号

Recent Progress in Dynamic Kinetic Resolution by En-zymes Coupled with Transition Meal Catalysis

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Abstract The dynamic kinetic resolution (DKR) of racemic compounds provides one of the most convenient and efficient routes to a wide range of enantiomerically enriched molecules. New strategy of the combined use of enzymes and transition metal catalysis has extended the scope of dynamic kinetic resolution. A key feature of this methodology is the use of metal catalysts for the *in situ* racemization of enzymatically unreactive enantiomers in the enzymatic resolution of racemic substrates. It overcomes the limitation of the maximum 50% yield in the traditional kinetic resolution. In this way, all of the substrate could be converted into a single product isomer with a 100% theoretical yield. An account on its recent advances and applica-tions was briefly reviewed.

Key words dynamic kinetic resolution enzyme transition metal catalysis

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