Dynamic kinetic resolution of styrne oxide by biocatalyst

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Abstract

Enantiomerically pure compound has drawn much attention for their applications as building blocks, fine chemicals, food additives and pharmaceuticals in many industries. Many biological and chemical processes have been developed and improved to produce chiral compounds by numerous researchers[1]. Enzymatic resolution is one of the popular ways to synthesize enantiopure chemicals. However, simple kinetic resolutions are restriced to a maximun yield of 50%.

To overcome this problem, dynamic kinetic resolution has been applied, in which less active enantiomer is racemized by racemization agent, result in 100% theoretical resolution yield[2,3]. In this report, we will demonstrate combined enzymatic resolution and racemization by biocatalyst for dynamic kinetic resolution.

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