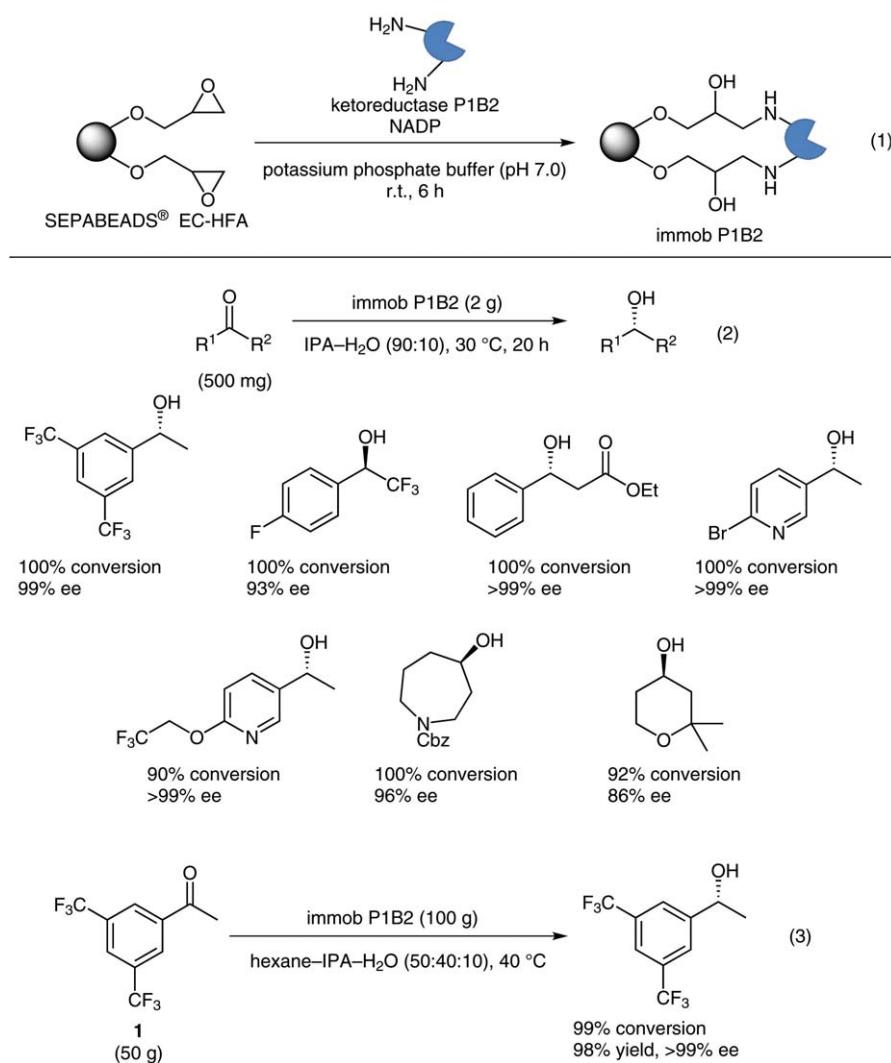


Asymmetric Carbonyl Reduction with a Supported Ketoreductase



Significance: Immobilized ketoreductase P1B2 (immob P1B2), prepared as shown in eq. 1, catalyzed the asymmetric transfer-hydrogenation of ketones in 90:10 propan-2-ol–water to give the corresponding alcohols in up to 100% conversion and up to >99% ee (eq. 2). This reaction was used in a 50 g scale reduction of 3,5-bis(trifluoromethyl)phenyl ethanone (**1**) (eq. 3).

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 Synfacts 2015, 11(10), 1105 Published online: 18.09.2015
 DOI: 10.1055/s-0035-1560273; Reg-No.: Y10915SF

Comment: Immob P1B2 was recovered and re-used nine times without any loss of its catalytic performance. The catalyst was also used in a flow transfer hydrogenation of ketone **1**.

Category

Polymer-Supported
Synthesis

Key words

enzymes

biocatalysis

hydrogenation

ketones

Synfact
of the month