BIOTRANS
LA ROCHELLE 2023

N°1506 / PC
TOPIC(s) : Biocatalytic cascade reactions / (Chemo)enzymatic strategies

Baylis-Hillman cascade reactions

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PURPOSE OF THE ABSTRACT
Baylis-Hillman cascade reactions
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The development of enzyme-based sustainable synthetic methods is a key growth area in the field of biotechnology. The Baylis-Hillman (B-H) reaction is a useful synthetic transformation used in C-C bond formation. Earlier work established the use of amine-based organocatalysts[1] and the use of aqueous-based media was found to accelerate the reaction in some cases.[2,3] Recently, an engineered B-Hase has been designed.[4] Also, a paper about the cascade of alcohol dehydrogenase and the engineered B-Hase has already been published.[5] Our aim is to establish if we can develop one-pot chemoenzymatic or enzymatic syntheses using the Baylis-Hillman (B-H) reaction as the first step, and other enzymes in the second step, leading to a stereospecific and effective enzyme cascade.

References:
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FIGURES

FIGURE 1

FIGURE 2

KEYWORDS

Baylis-Hillman reaction | cascade

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