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Static to Inducibly Dynamic Stereocontrol: The Convergent Use of Racemic β -Substituted Ketones

Science **2020**, 369, 1113–1118, DOI: 10.1126/science.abc9909.

Chemoenzymatic Dynamic Kinetic Resolution at Normally Static Stereogenic Centers

Proposed mechanism:

Significance: The Hyster and MacMillan groups used photoredox catalysis to induce dynamic stereocontrol at normally static stereogenic centers and, in conjunction with a ketoreductase, yield γ -substituted alcohols in nearly enantiopure form.

Comment: Given the range of chemical space that is open to photo-/organocatalytic processes, paired with the unparalleled selectivity of processes, this novel platform will undoubtedly open new pathways for stereoconvergent syntheses.

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 Synfacts 2020, 16(11), 1341 Published online: 20.10.2020
 DOI: 10.1055/s-0040-01706061; Reg-No.: B08720SF

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Category

Organo- and Biocatalysis

Key words

photoredox catalysis

aminocatalysis

ketoreductase

dynamic kinetic resolution

alcohols

stereoconvergent synthesis

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