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An Ir/Zn Dual Catalysis for Enantio- and Diastereodivergent α -Allylation of α -Hydroxyketones

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Enantio- and Diastereoselective α -Allylation

Category

Metal-Catalyzed
Asymmetric
Synthesis and
Stereoselective
Reactions

Key words

α -hydroxyketones
dual metal catalysis
asymmetric
allylation

Synfact
of the month

Selected examples:

Derivatization:

Significance: A dual metal-catalyzed asymmetric allylation of α -hydroxyketones is described. Chiral iridium and zinc complexes are employed for this transformation to furnish stereodefined α -hydroxyketones.

Comment: Multi-metal asymmetric catalysis is a newly emerging field in catalysis. Exploitation of the preferential binding affinity of chiral ligands to specific metal centers allows chemo- and stereo-selective formation of the desired products.

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