

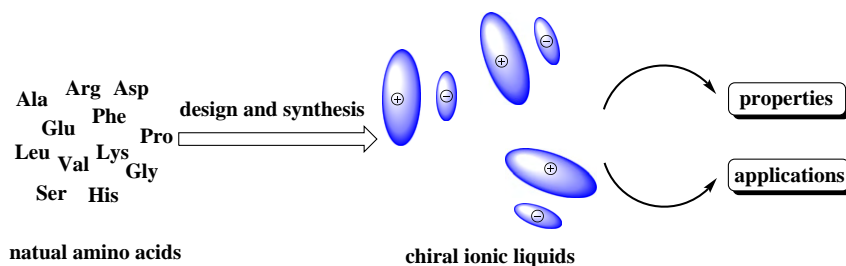
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Advances in chiral ionic liquids derived from natural amino acids

pp 1–14

Xuewei Chen, Xuehui Li,* Aixi Hu* and Furong Wang

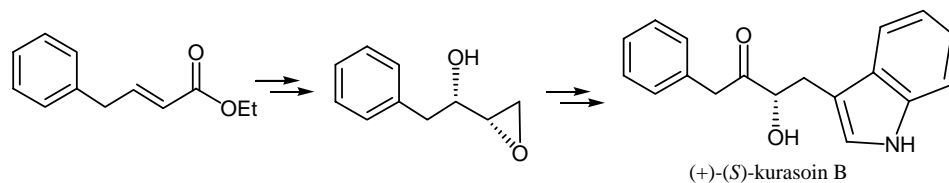


ARTICLES

A short synthesis of (+)-(*S*)-kurasoin B

pp 15–18

Rodney A. Fernandes

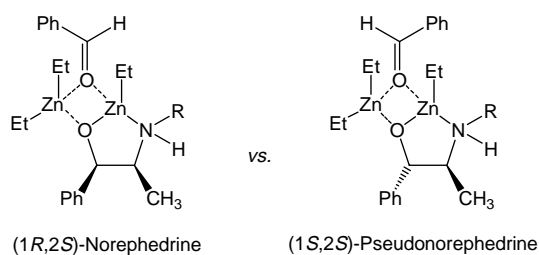


An efficient short enantioselective synthesis leading directly to (+)-(*S*)-kurasoin B has been achieved in 5 steps and 25% overall yield from (*2E*)-ethyl-4-phenylbut-2-enoate using Sharpless asymmetric dihydroxylation and CH_3NO_2 -assisted or $\text{Yb}(\text{OTf})_3$ -catalyzed regioselective C-3 coupling of indole as the key steps.

β -Amino alcohols derived from (1*R*,2*S*)-norephedrine and (1*S*,2*S*)-pseudonorephedrine as catalysts in the asymmetric addition of diethylzinc to aldehydes

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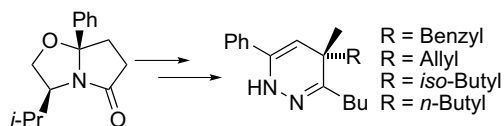
Raleigh W. Parrott, II and Shawn R. Hitchcock*



Synthesis of chiral 4,4-disubstituted-dihydropyridazines

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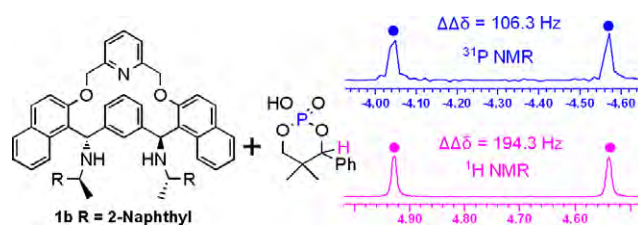
Paul T. Buonora,* Qun Zhang, Jennifer Sawko and Larry J. Westrum



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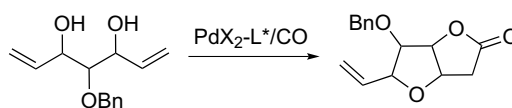
Fengnian Ma, Xiumin Shen, Jie Ou-Yang, Zhiwei Deng and Cong Zhang*



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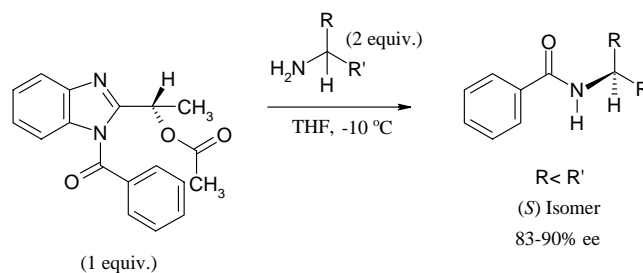
Peter Kapitán and Tibor Gracza*



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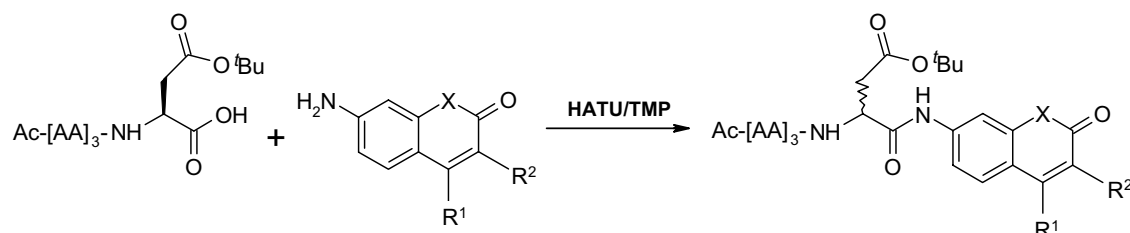
Anil V. Karnik* and Suchitra S. Kamath



Control of aspartate epimerization during the coupling of caspase specific tetrapeptides with aromatic amines by using *N*-[[dimethylamino)-1*H*-1,2,3-triazolo[4,5-*b*]-pyridin-1-yl]methylene]-*N*-methylmethanaminium hexafluorophosphate *N*-oxide (HATU) as a coupling reagent

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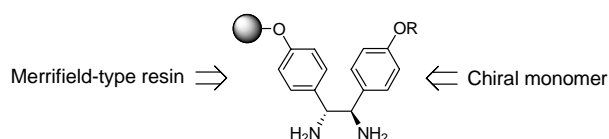
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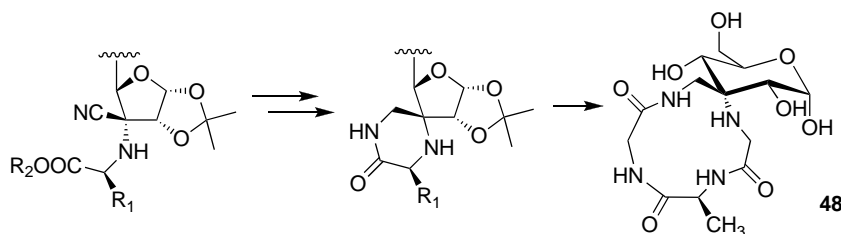
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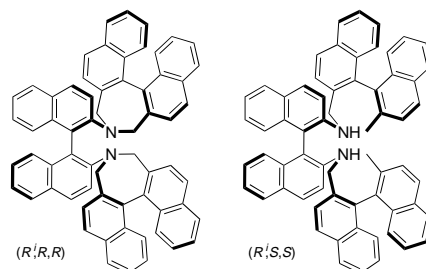
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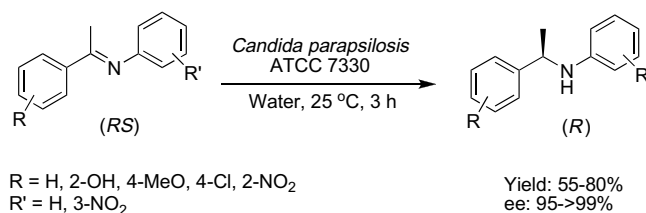
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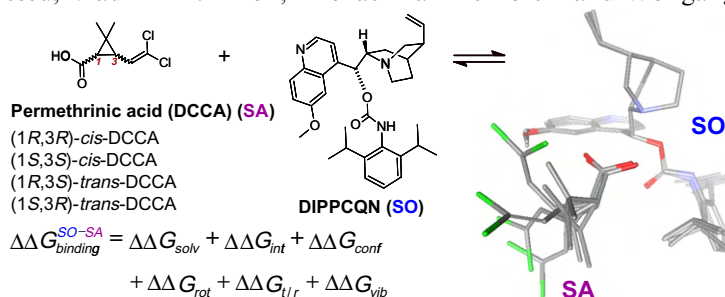


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Contributions to chromatographic chiral recognition of permethrinic acid stereoisomers by a quinine carbamate chiral selector: evidence from X-ray diffraction, DFT computations, ¹H NMR, and thermodynamic studies

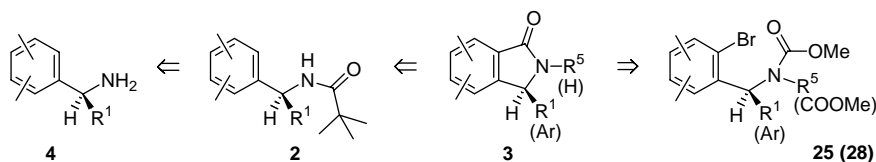
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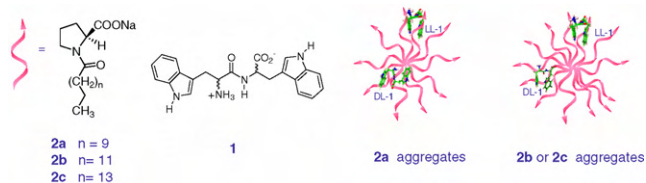
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*Corresponding author

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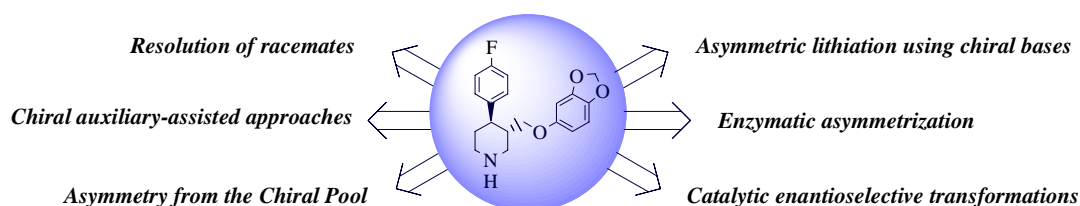
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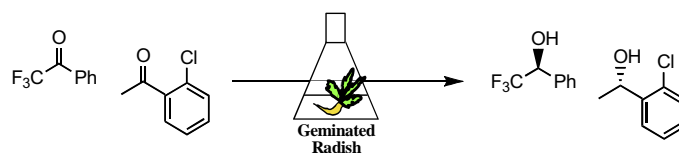
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COMMUNICATION

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Kiyoko Matsuo, Sei-ichiro Kawabe,* Yosuke Tokuda, Takashi Eguchi, Rio Yamanaka and Kaoru Nakamura*

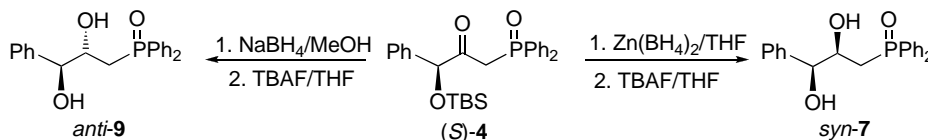


A germinated radish sprout from commercially available vegetable seeds was used as a novel type of biocatalyst for asymmetric reduction of ketones.

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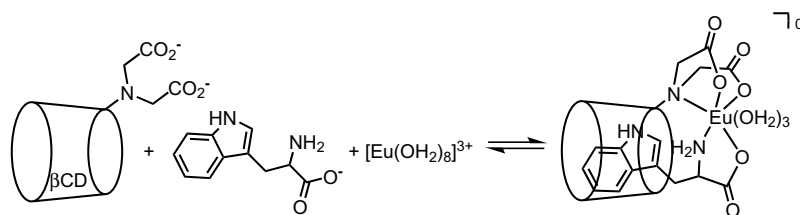
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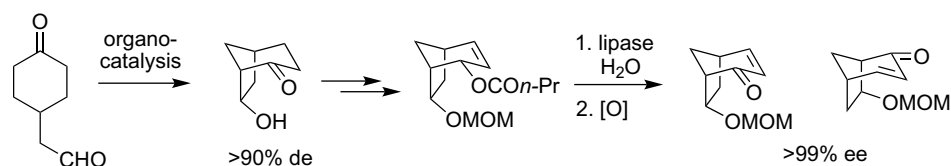
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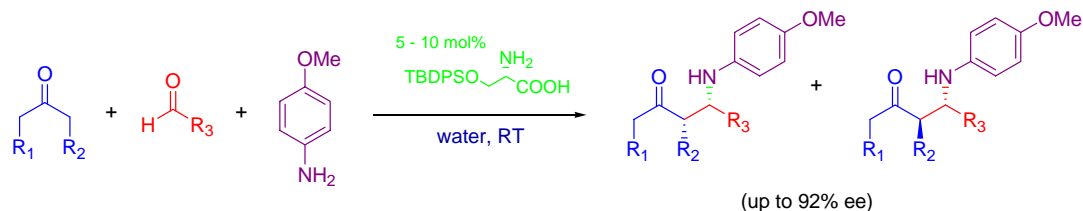
Shinichiro Ito, Ayako Tosaka, Keisuke Hanada, Masatoshi Shibuya, Kunio Ogasawara and Yoshiharu Iwabuchi*



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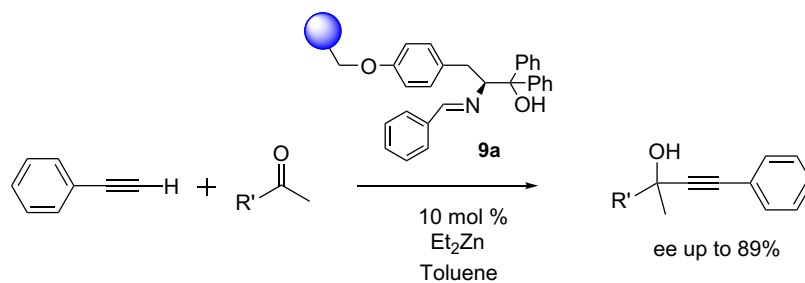
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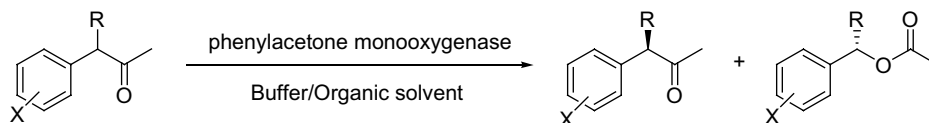
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Chao Chen, Liang Hong, Bangzhi Zhang and Rui Wang*



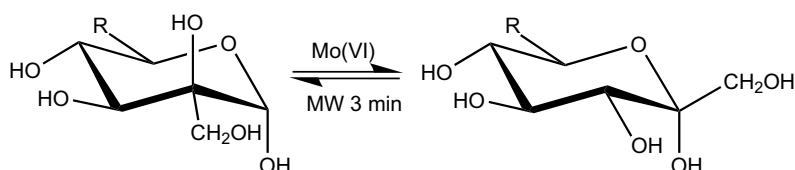
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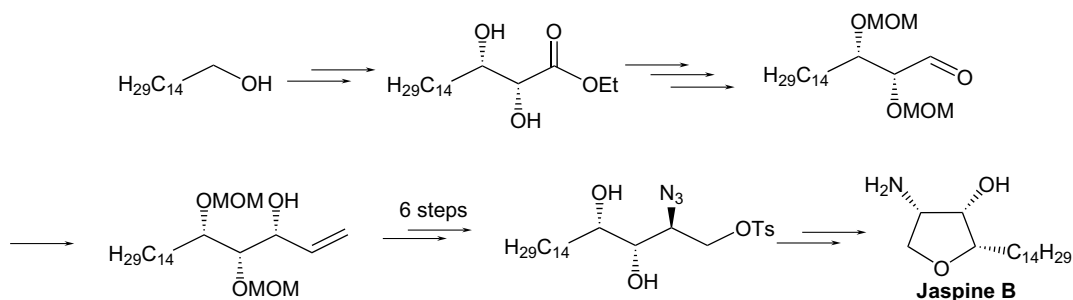
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Zuzana Hricovíniová



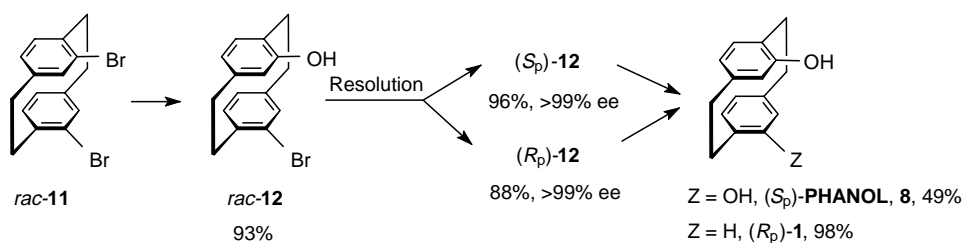
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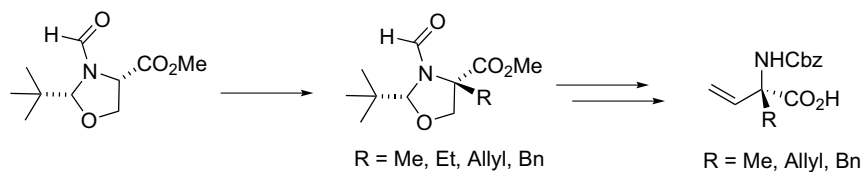
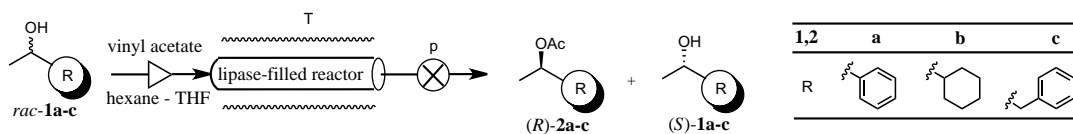
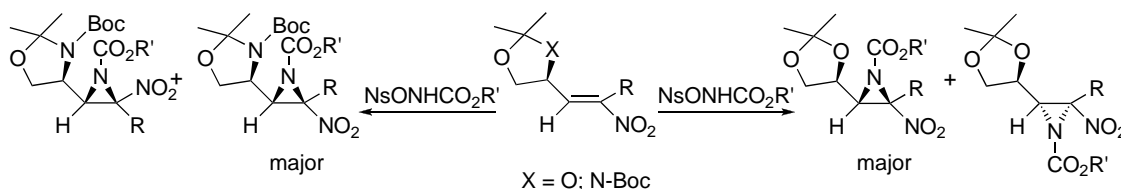
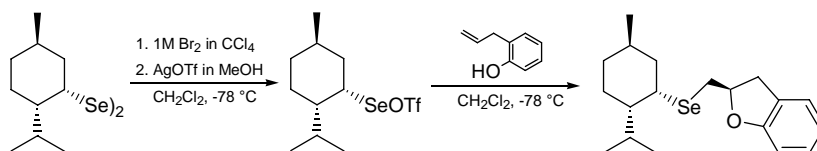
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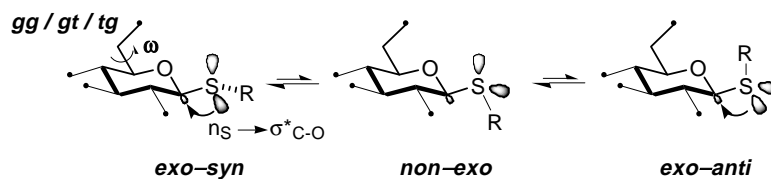


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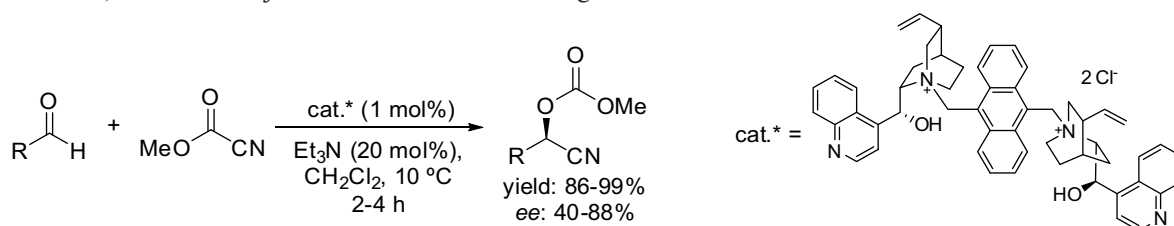
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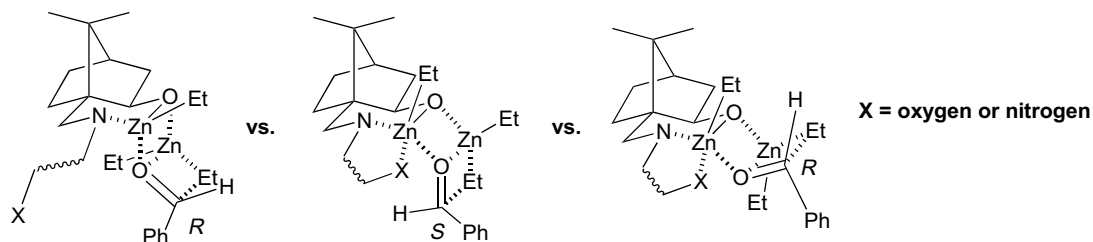
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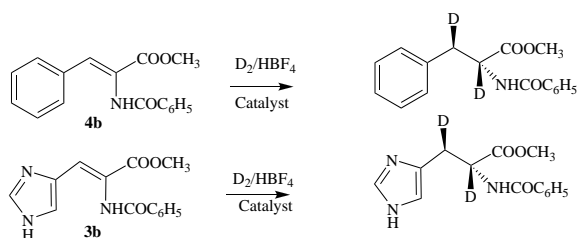
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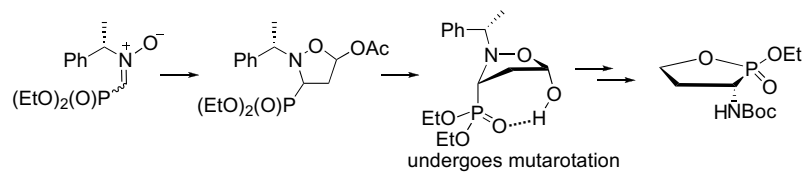
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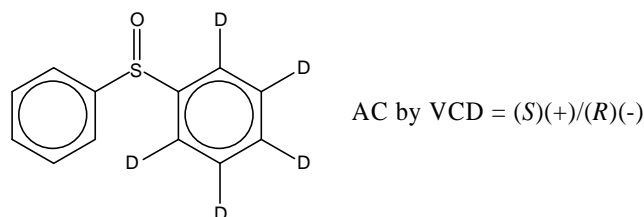
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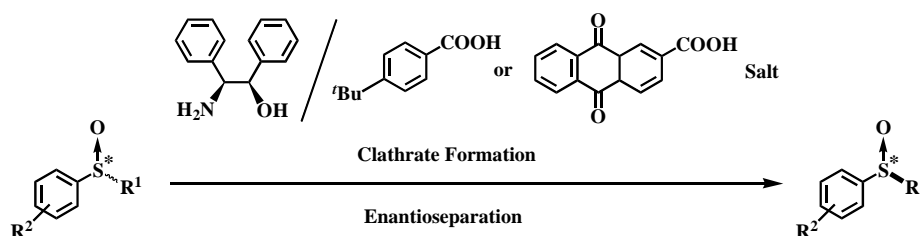
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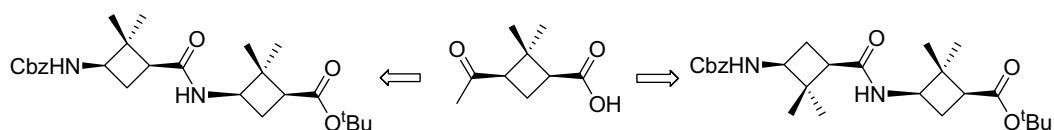
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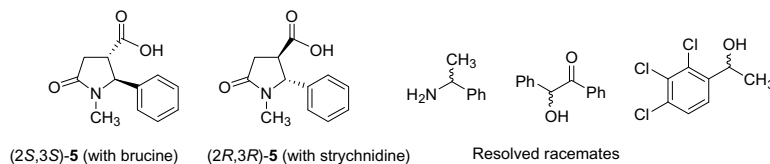
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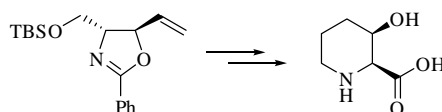
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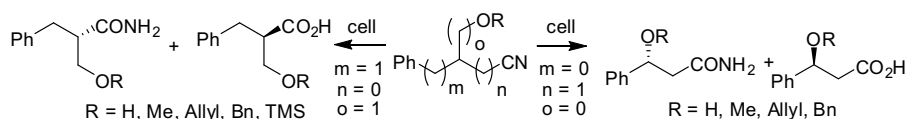
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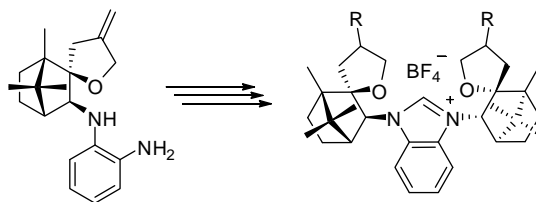
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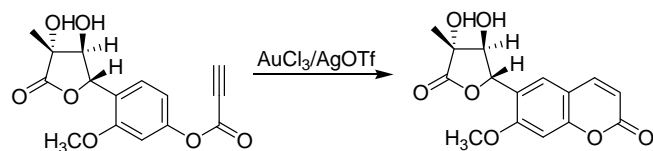
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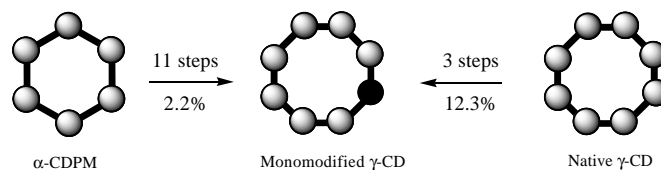
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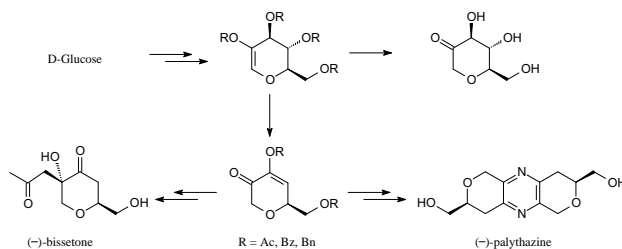
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Expedient conversion of D-glucose into 1,5-anhydro-D-fructose and into single stereogenic-center dihydropyranones, suitable six-carbon scaffolds for concise syntheses of the soft-coral constituents (–)-bisetone and (–)-palythazine

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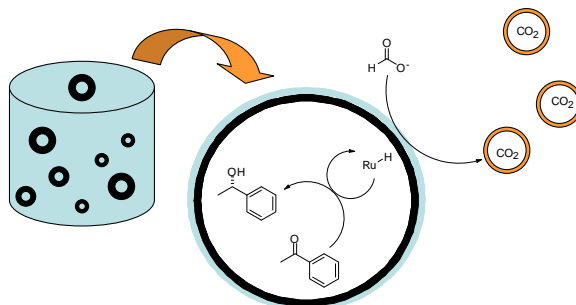
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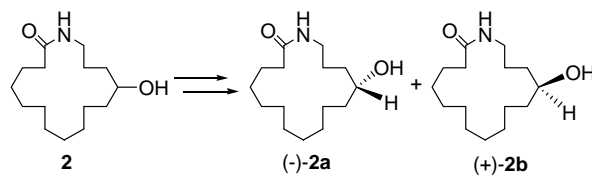


Aqueous asymmetric transfer hydrogenation using modular hydrophobic aminoalcohols

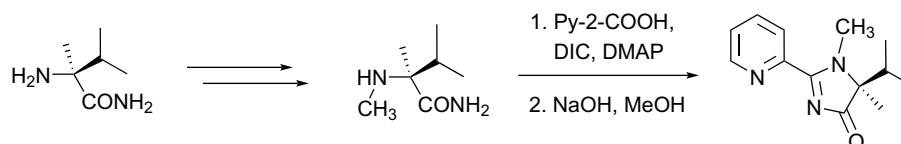
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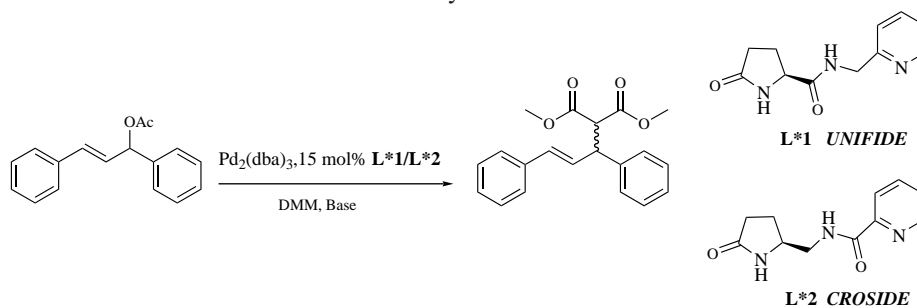




Pavel Drabina,* Miloš Sedlák, Aleš Růžička, Andrei V. Malkov and Pavel Kočovský



Lorraine Bateman, Simon W. Breeden and Patrick O'Leary*



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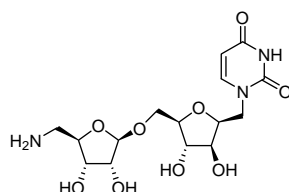
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Efficient synthesis of a bacterial translocase *MraY* inhibitor

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Anthony Clouet, Christine Gravier-Pelletier,* Bayan Al-Dabbag, Ahmed Bouhss and Yves Le Merrer*

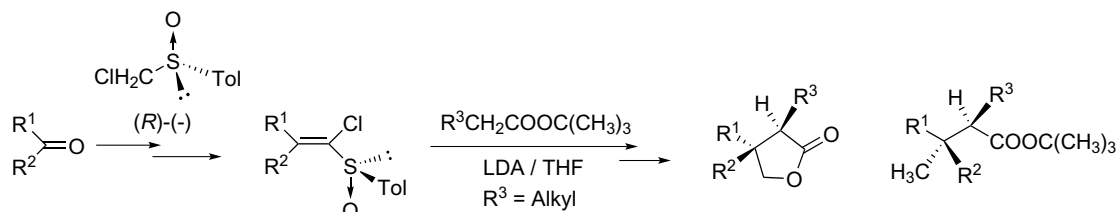


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Shimpei Sugiyama, Nobuhito Nakaya and Tsuyoshi Satoh*

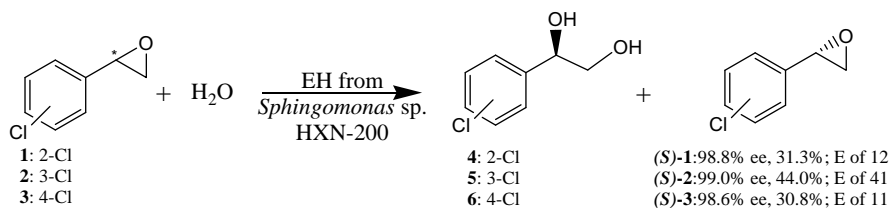


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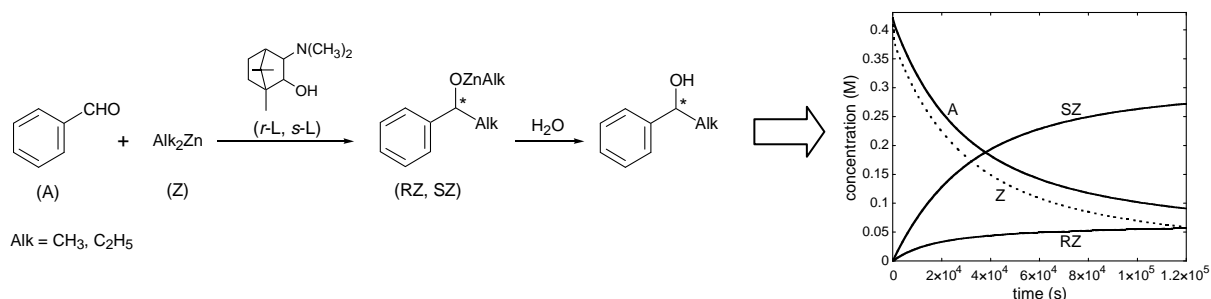
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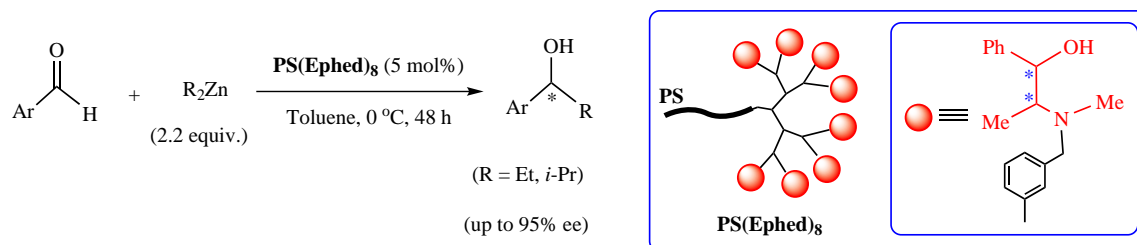
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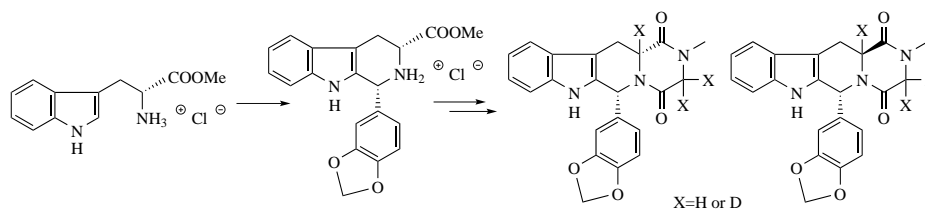
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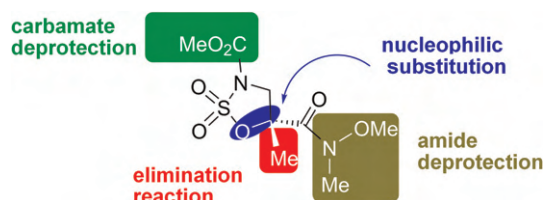
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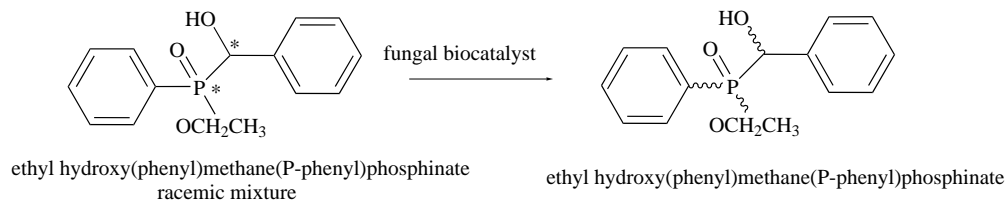
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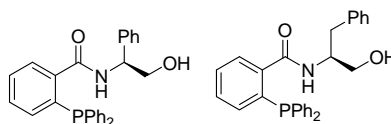
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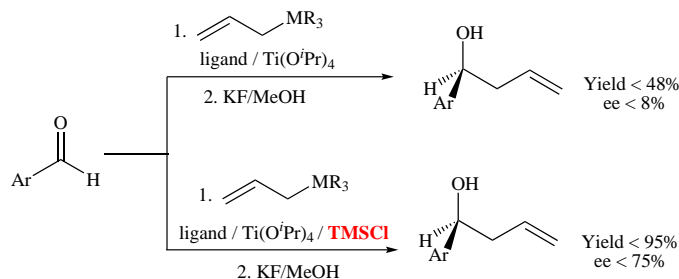
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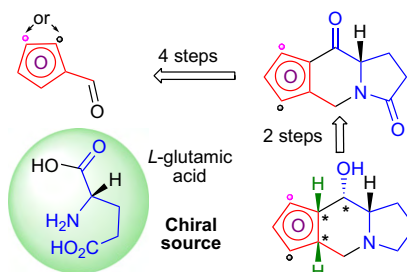
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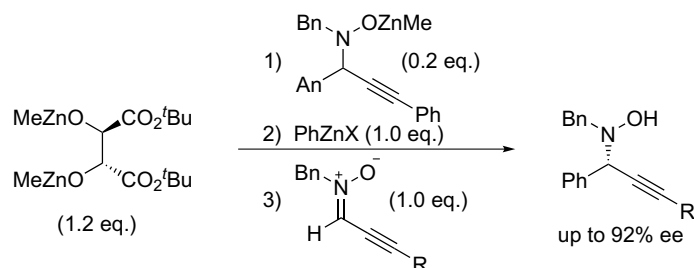
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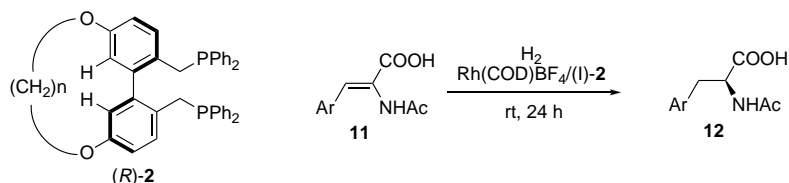
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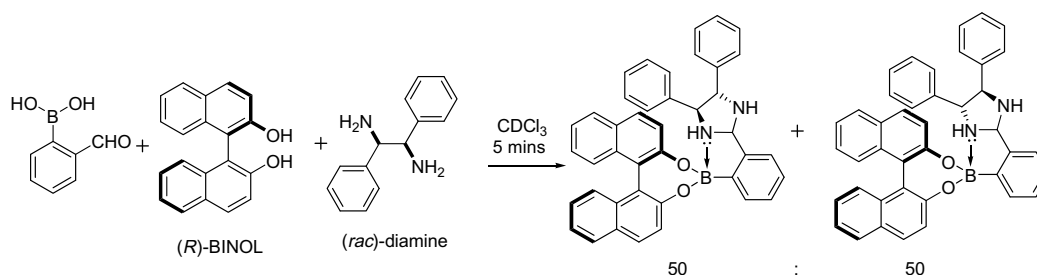
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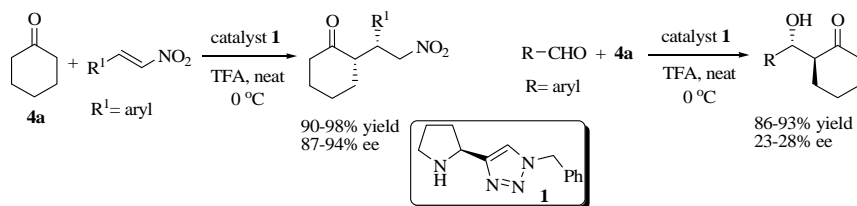
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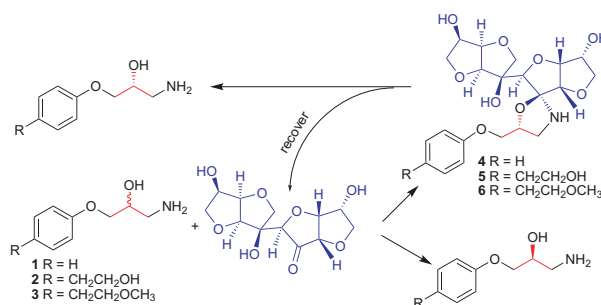
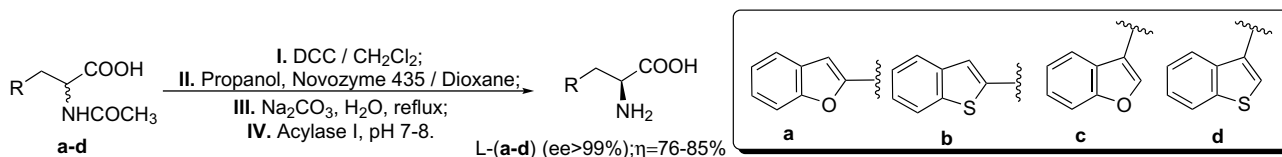


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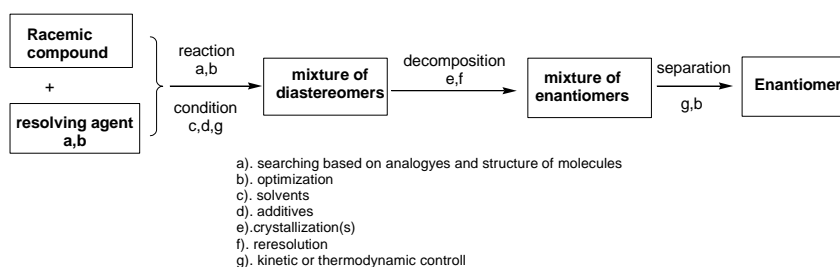
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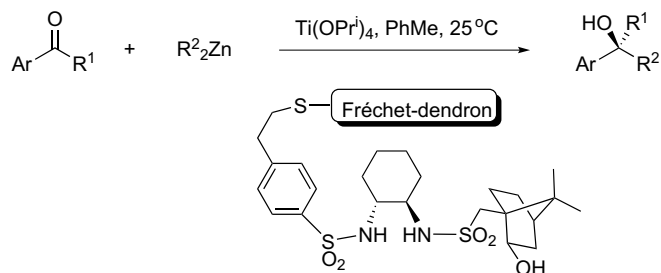


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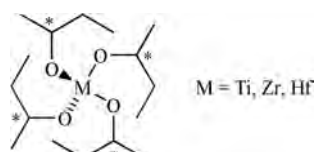


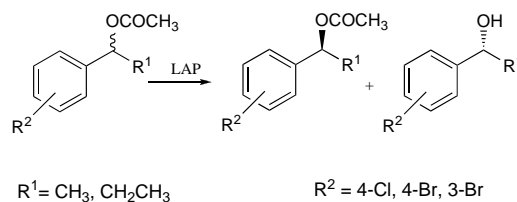
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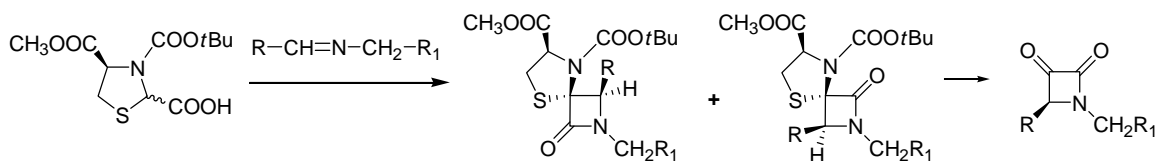
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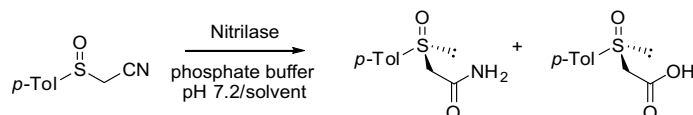




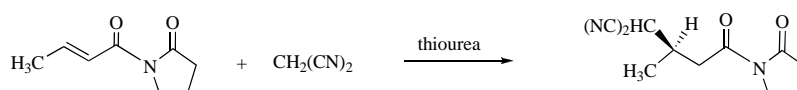
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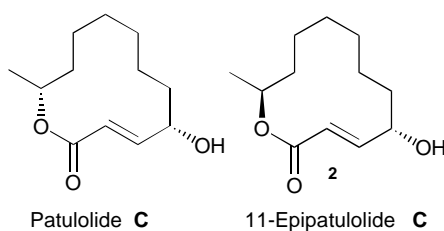


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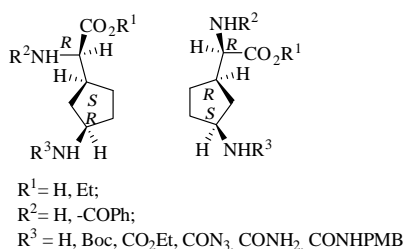


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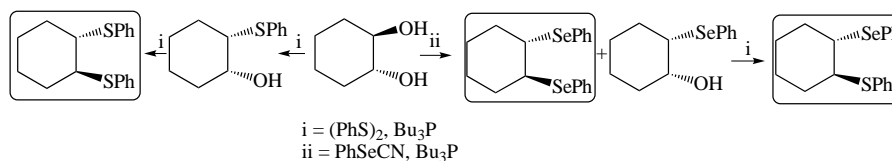




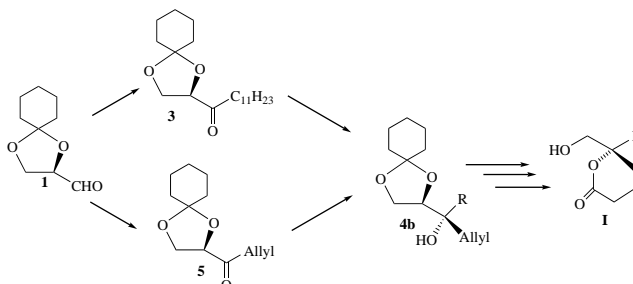
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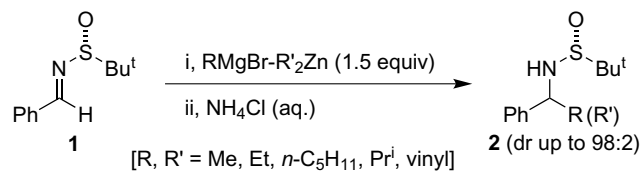
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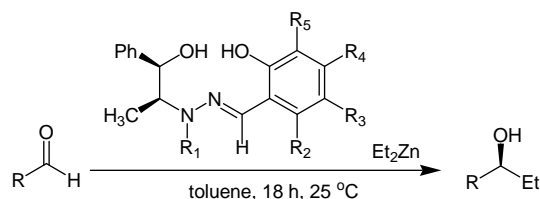


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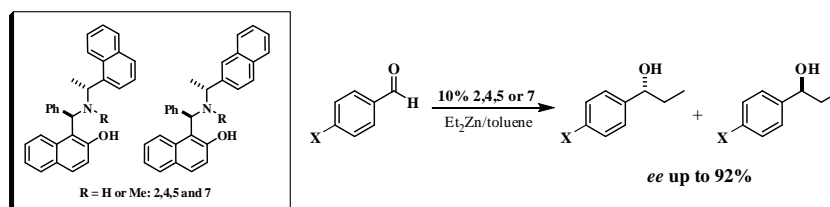
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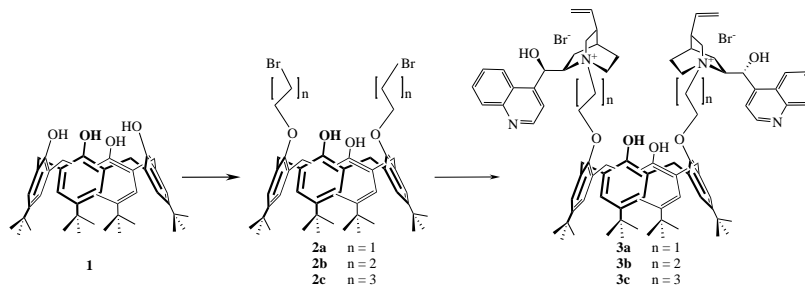
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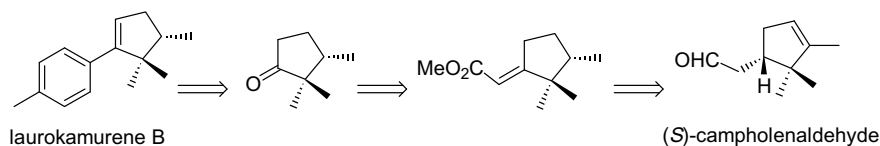
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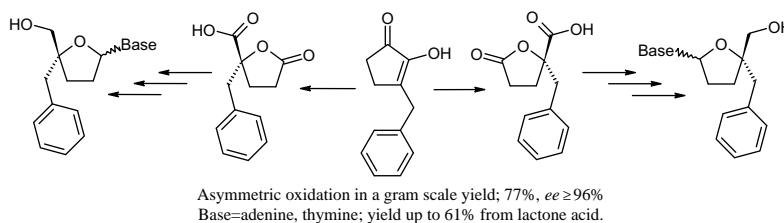
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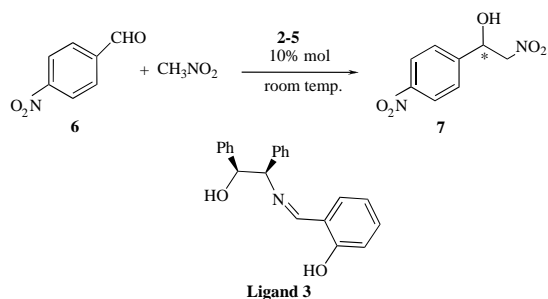
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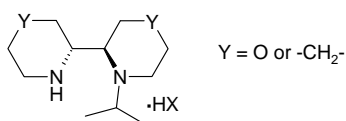
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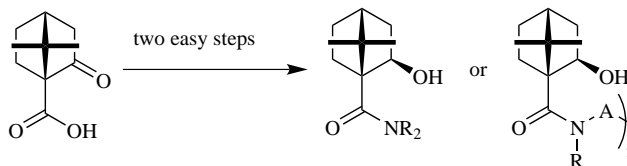
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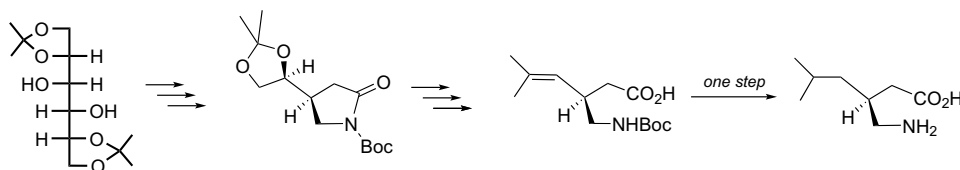
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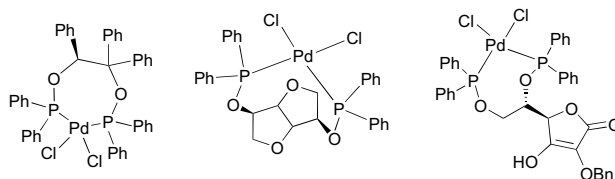
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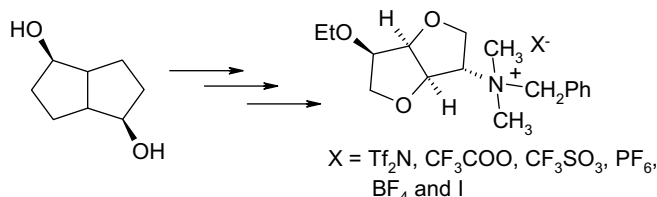
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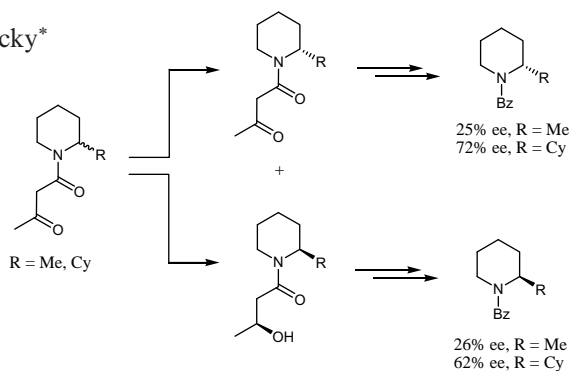
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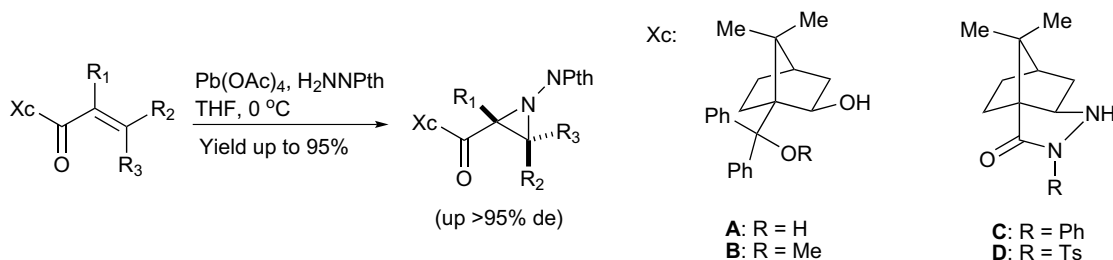
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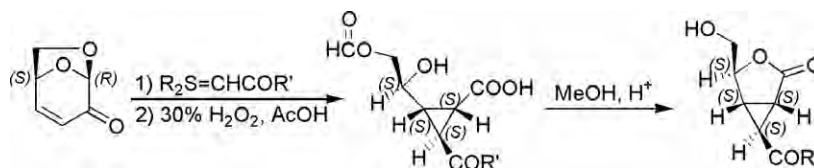
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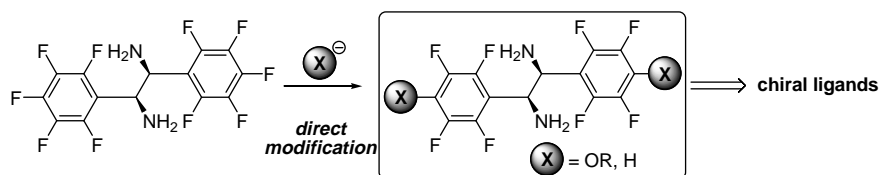
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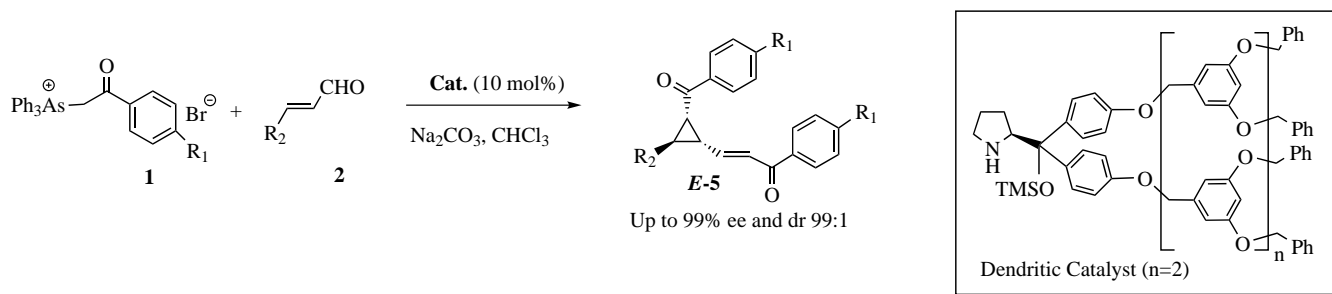
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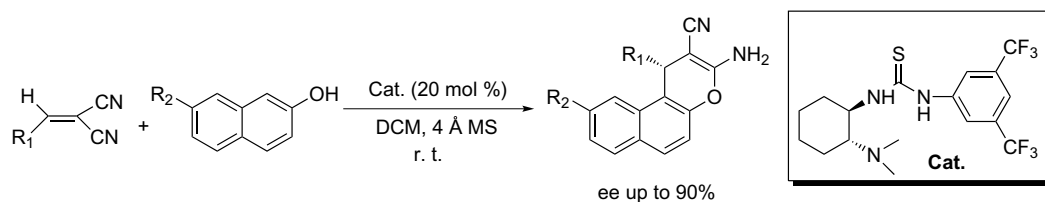
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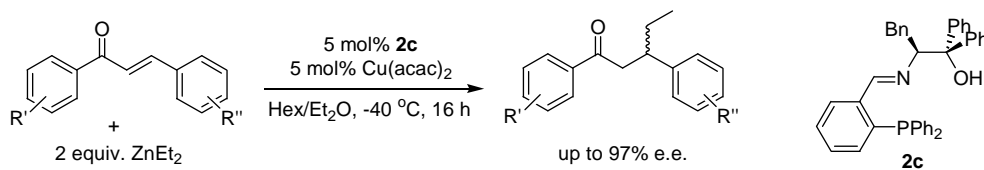
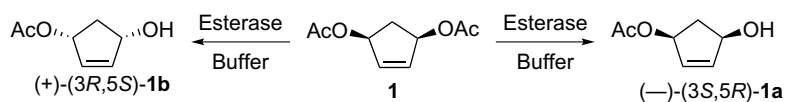
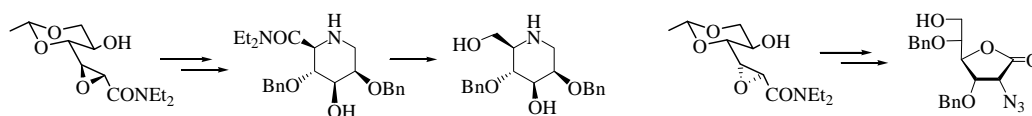
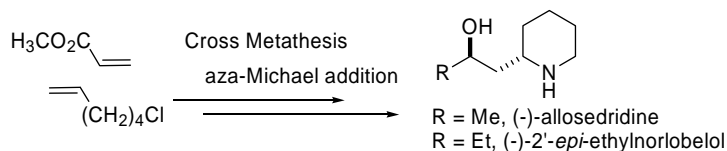


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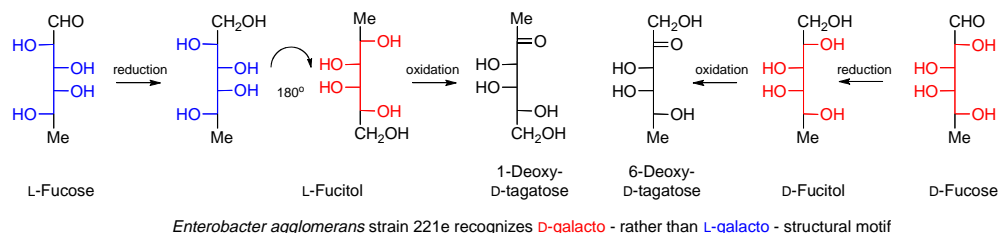




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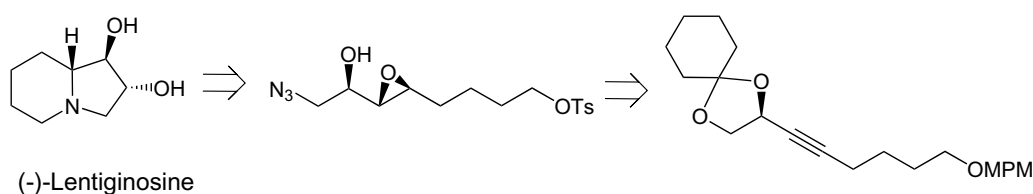
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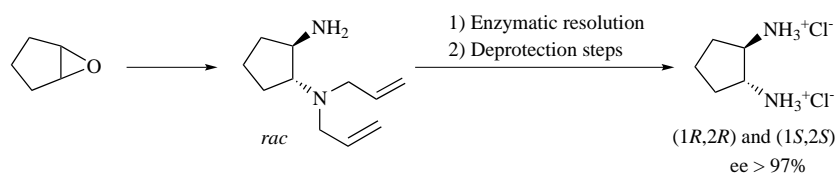
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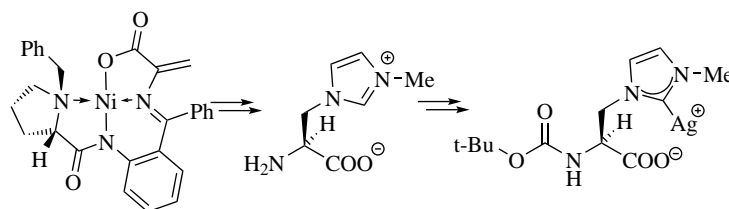
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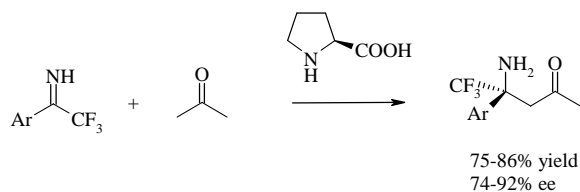
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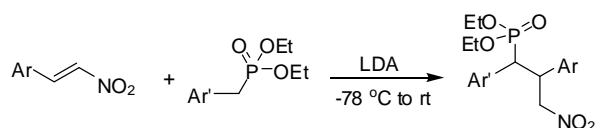
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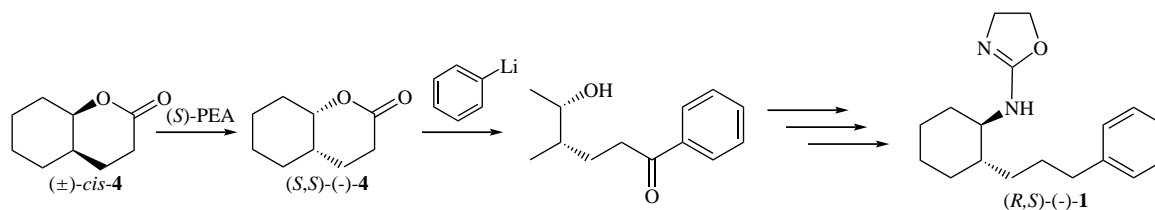


Method 1: cinchonine (50 mol %), THF, high dr and er (lit)
Method 2: cinchonine (50 mol %), ether, dr/er depletion/reversal
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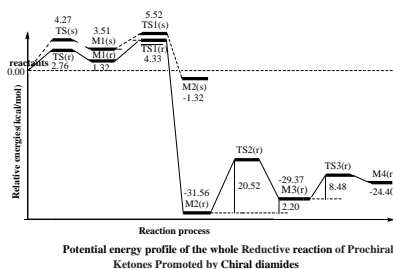
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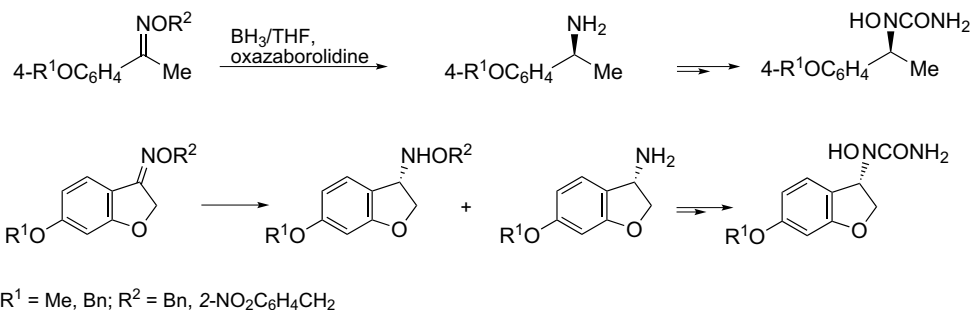
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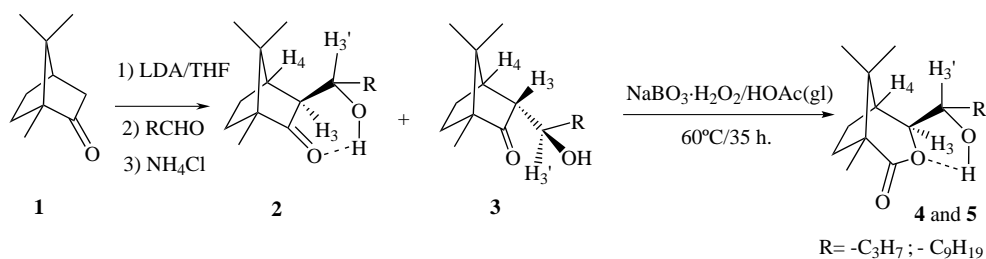
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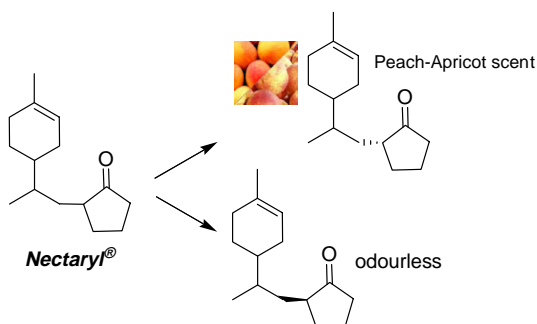
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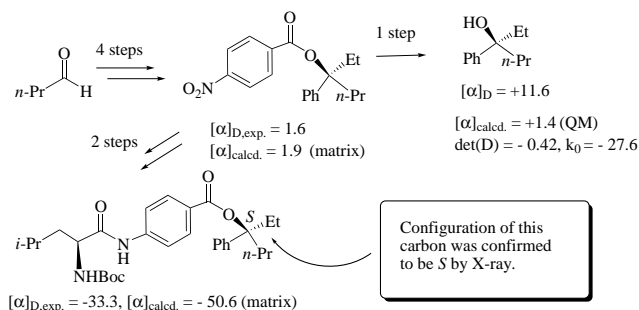
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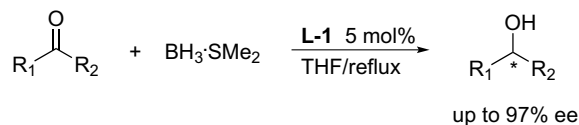
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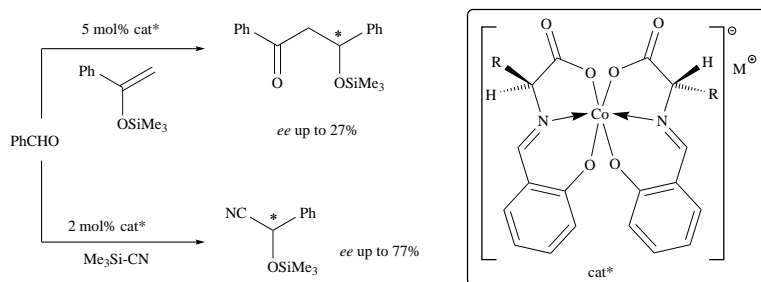
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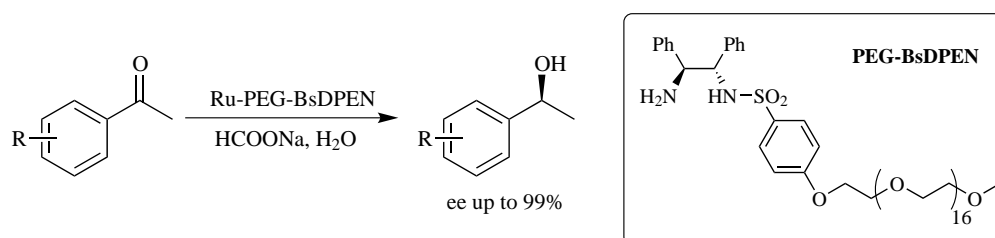
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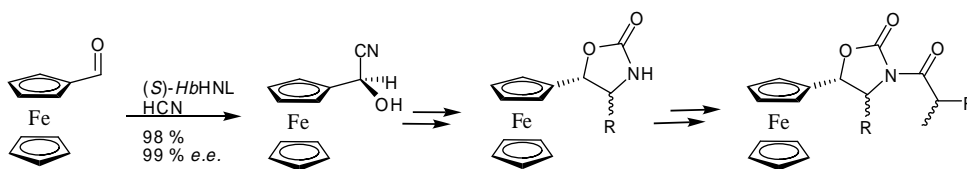
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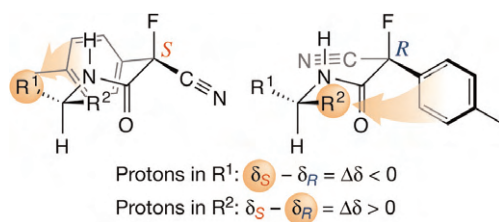
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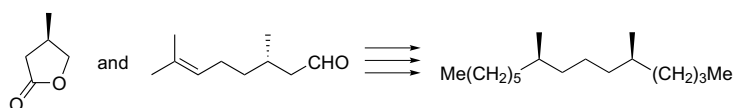
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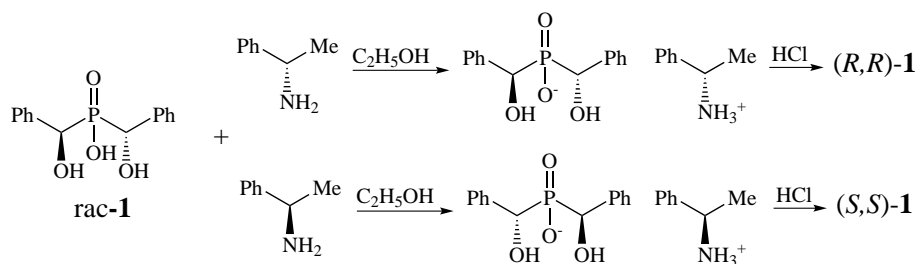
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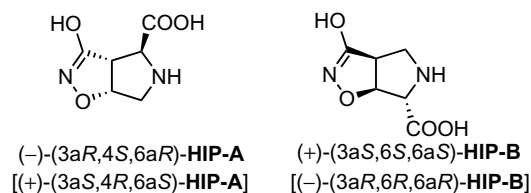
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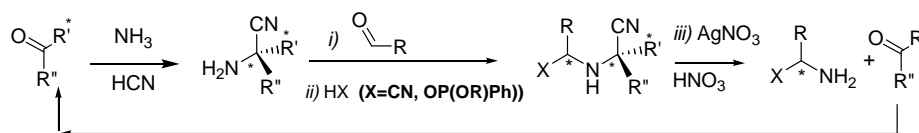


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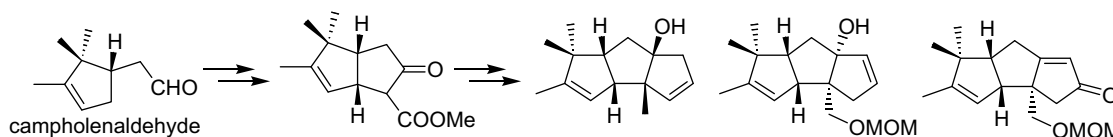
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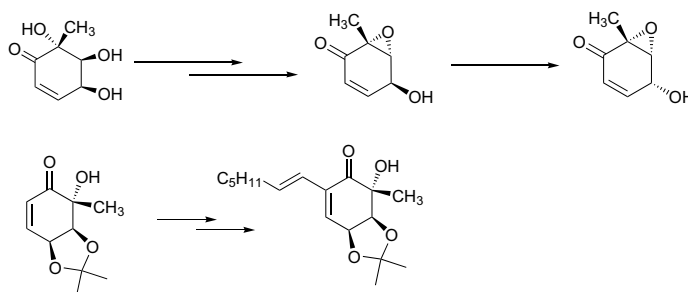
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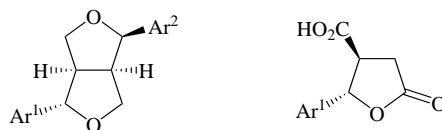
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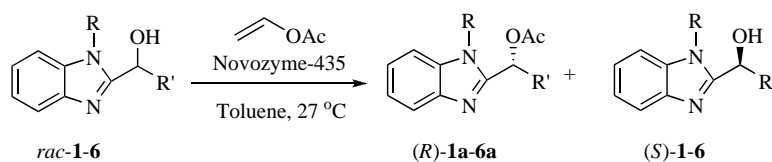


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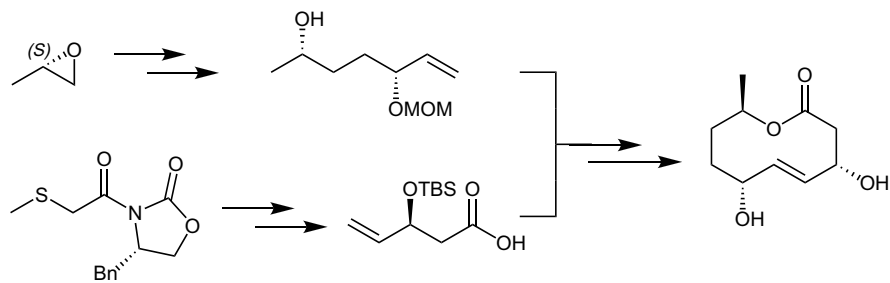
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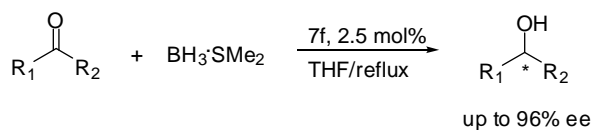
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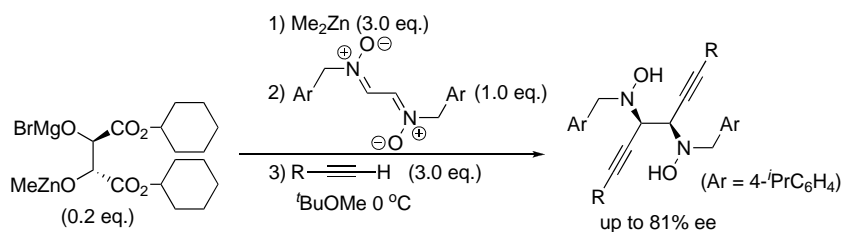
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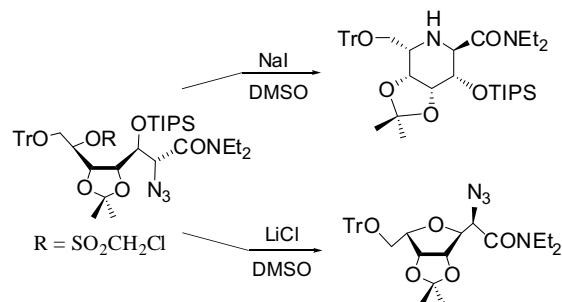
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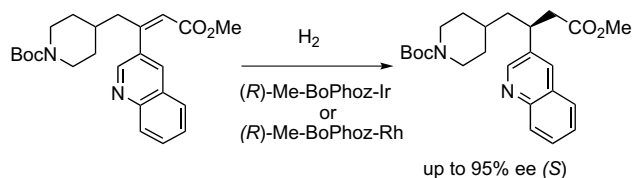
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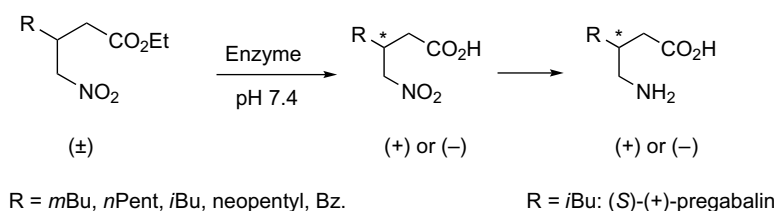
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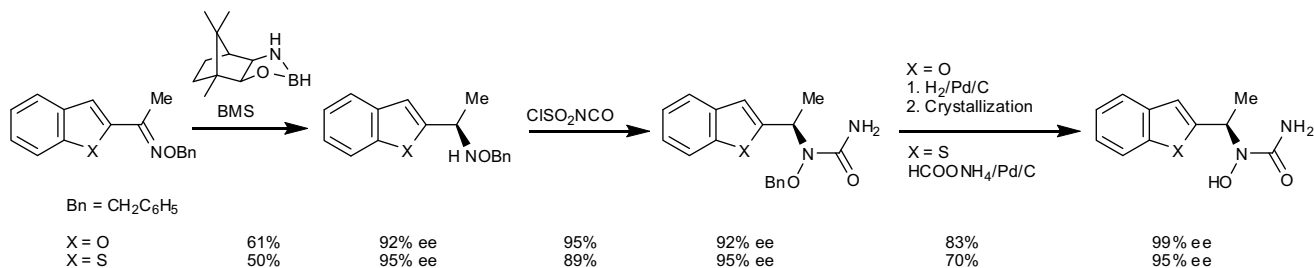
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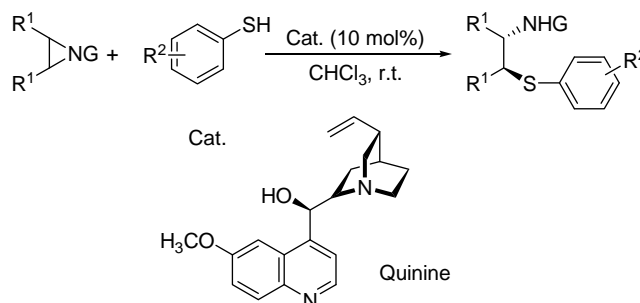
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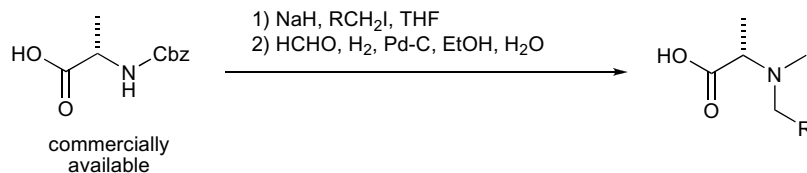
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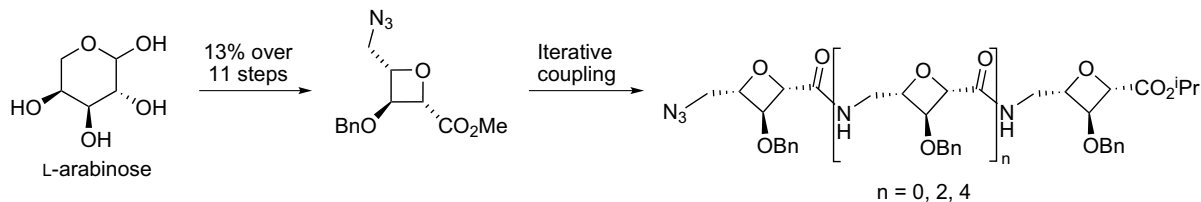
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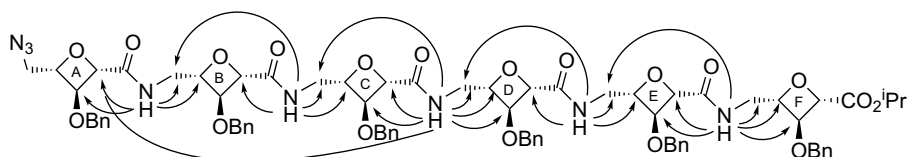
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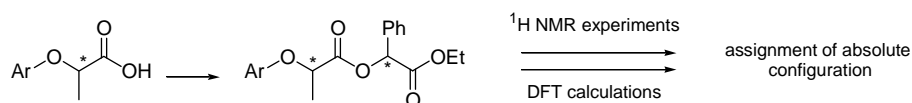


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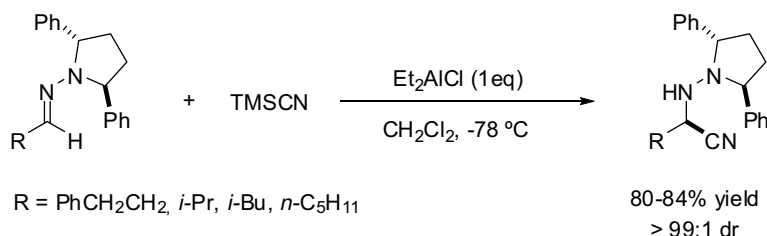
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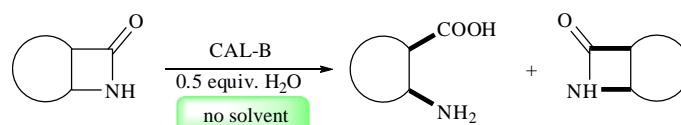
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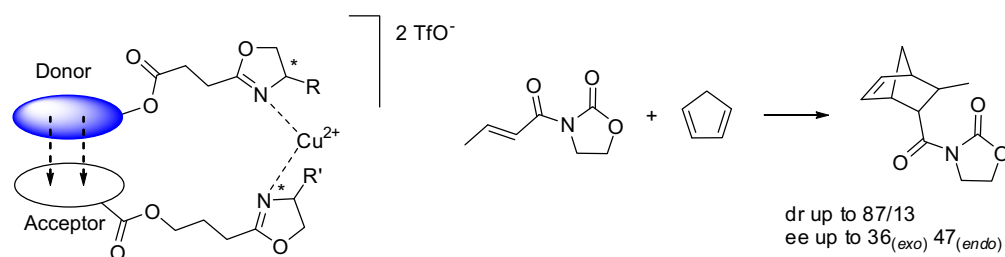
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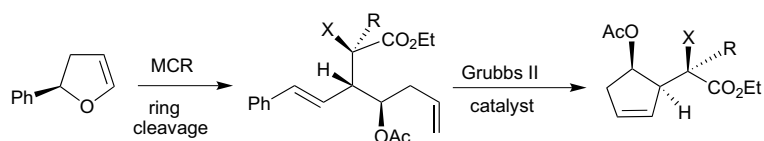
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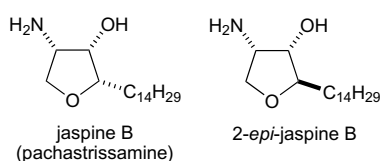
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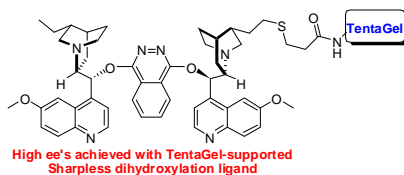
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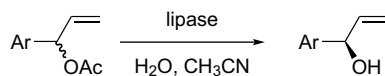
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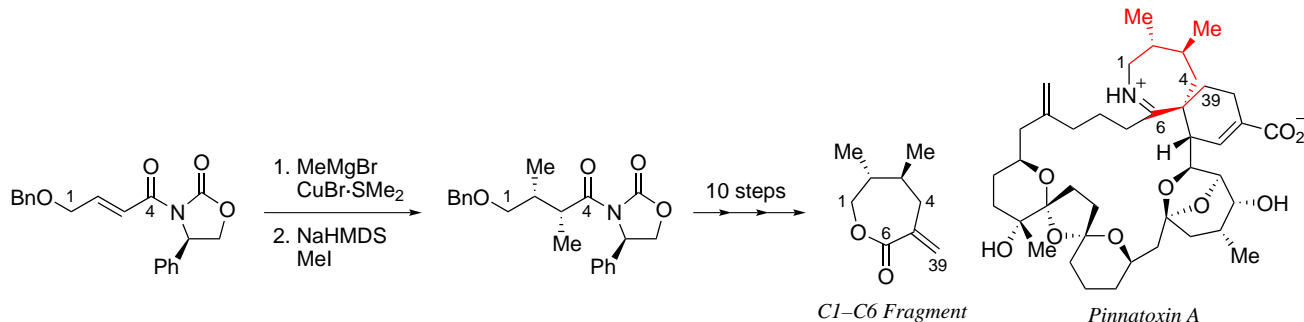


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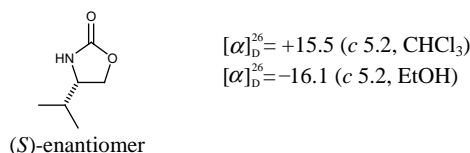
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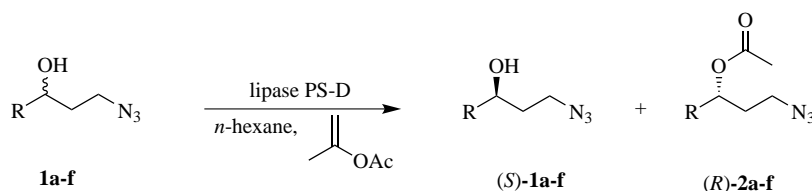
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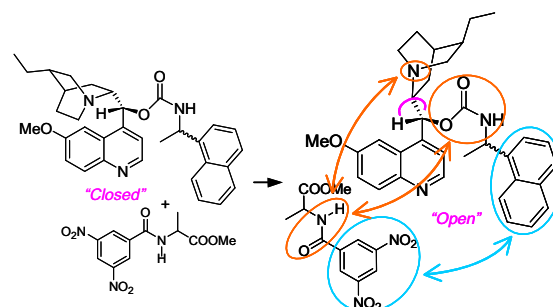
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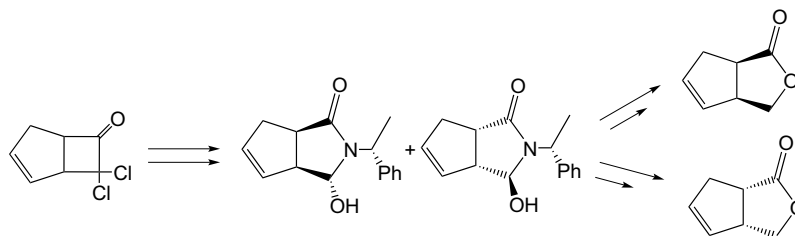
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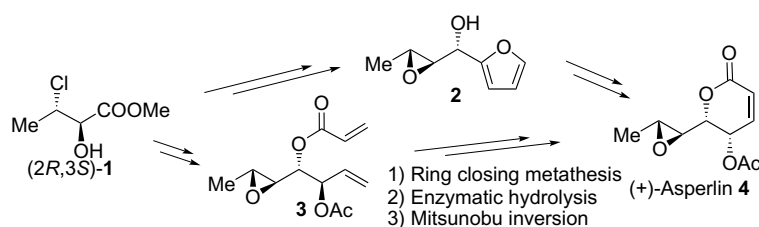
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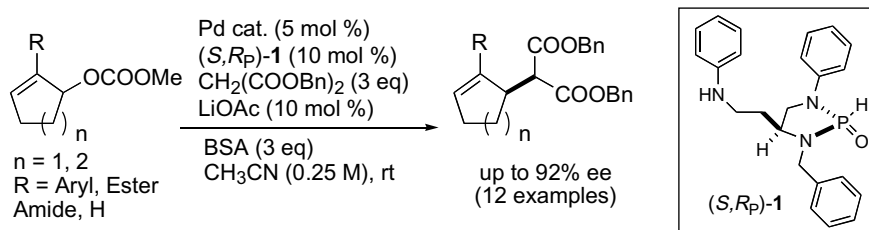
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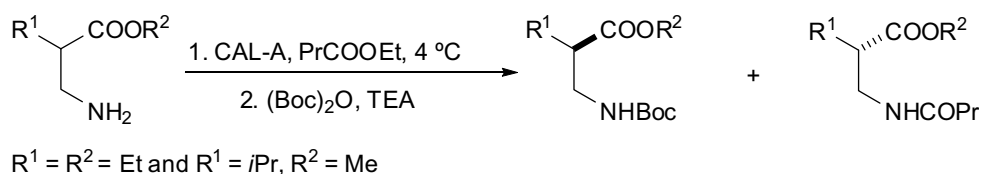
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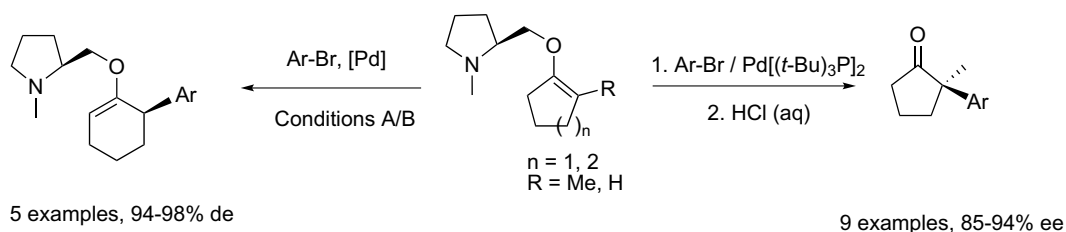
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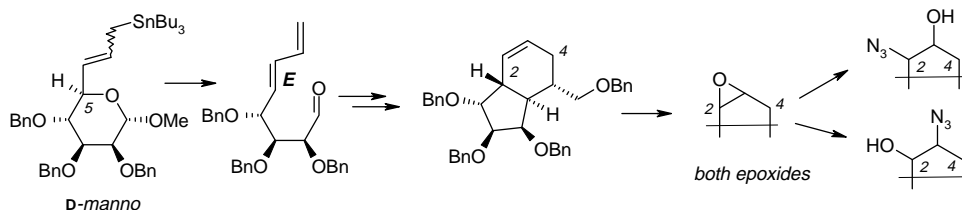
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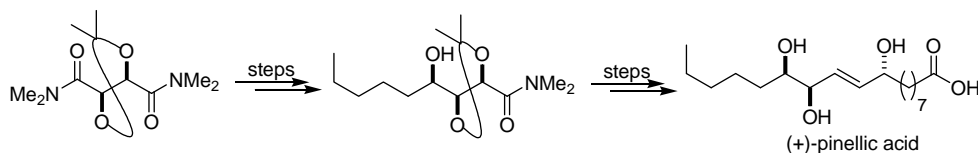
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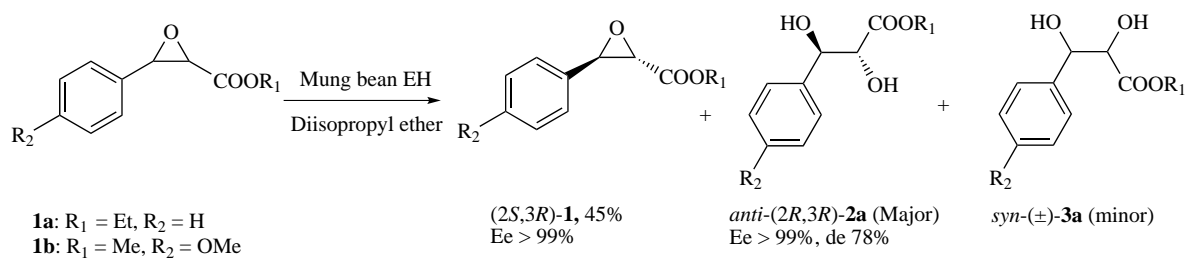
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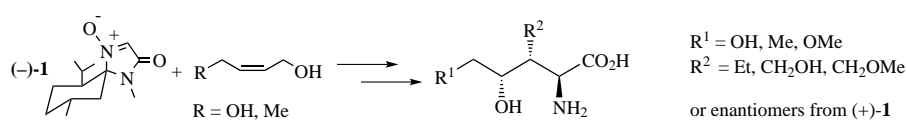
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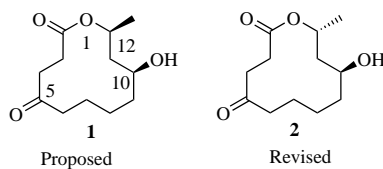
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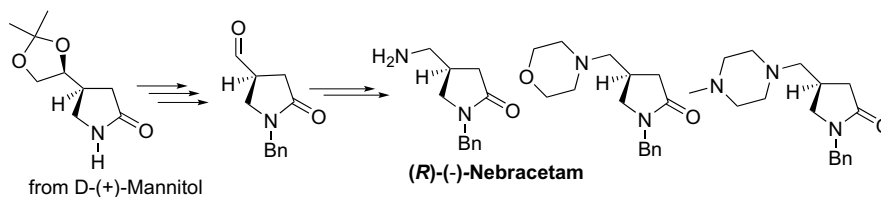
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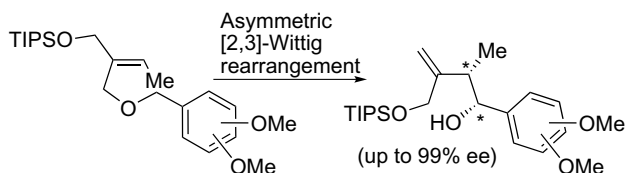
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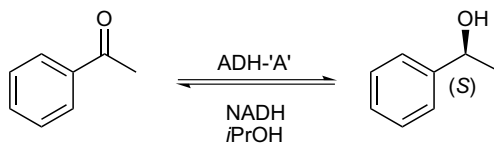
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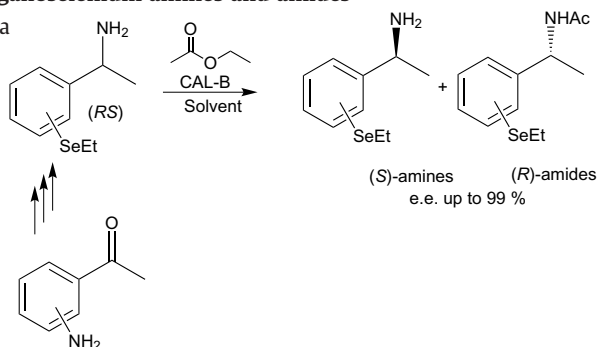
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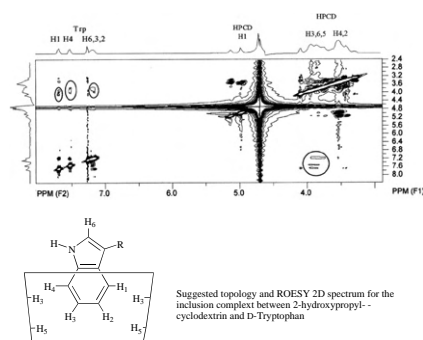
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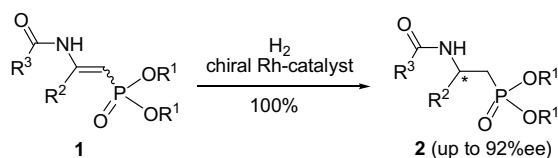
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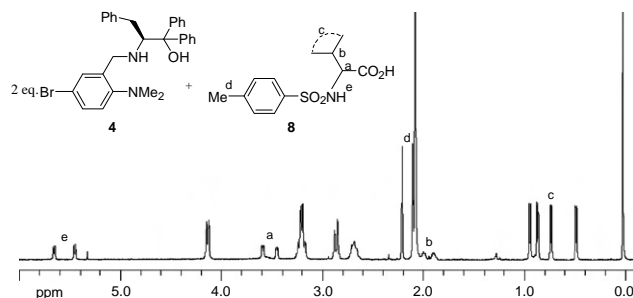
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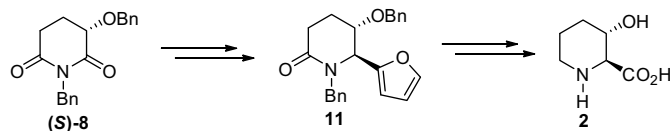
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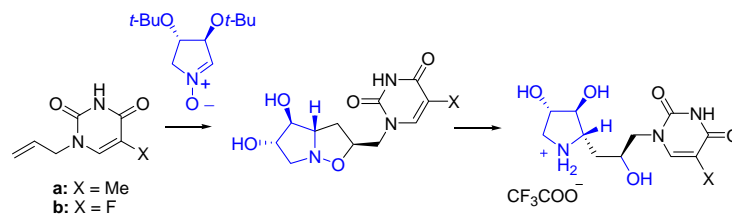
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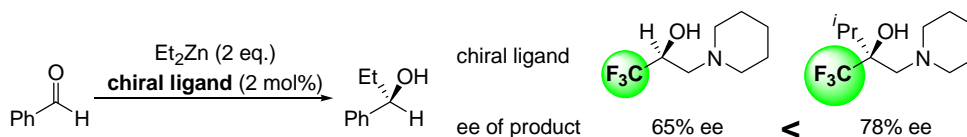
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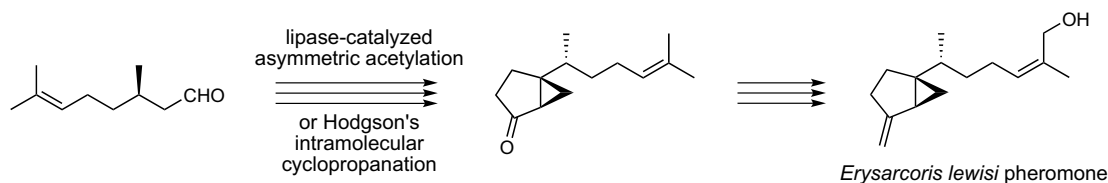
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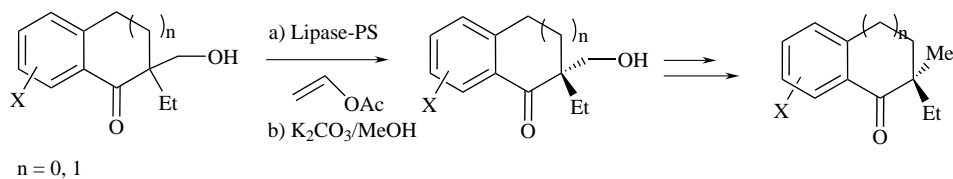
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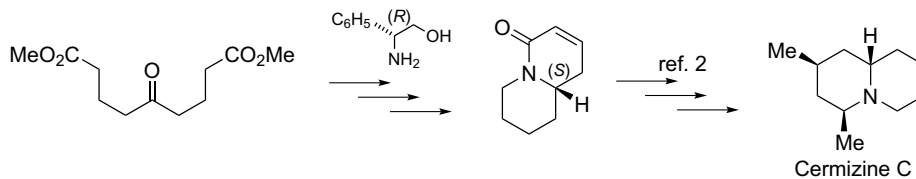
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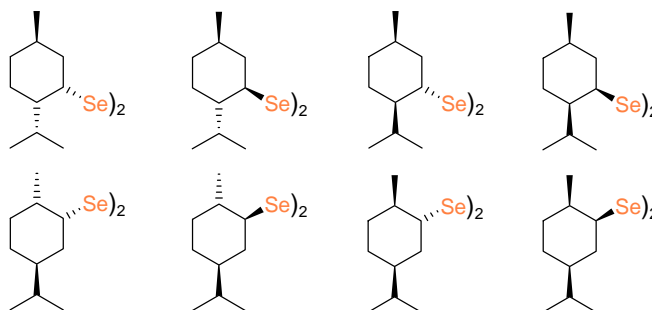
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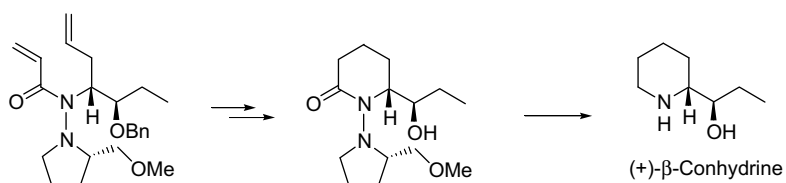
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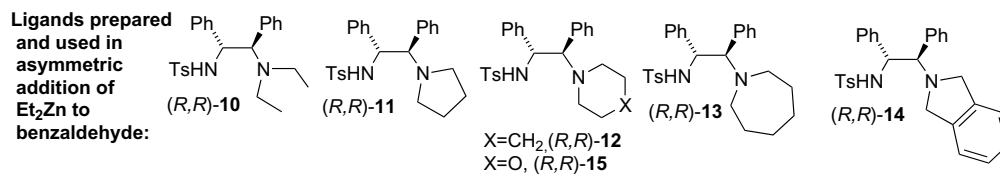
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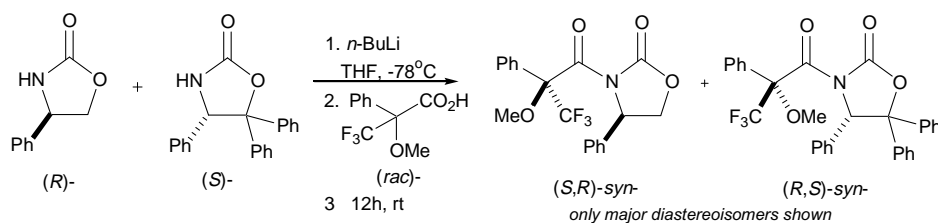
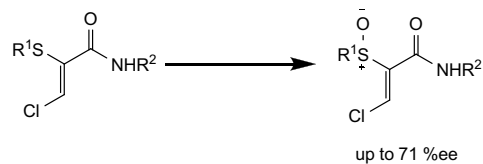


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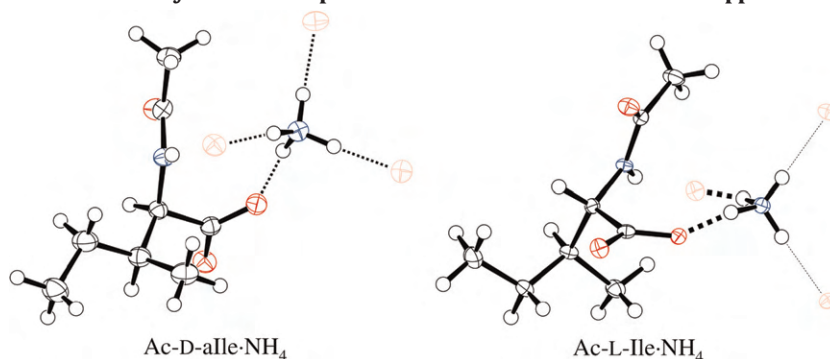
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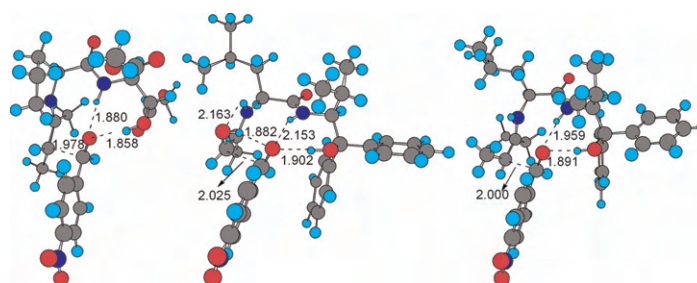
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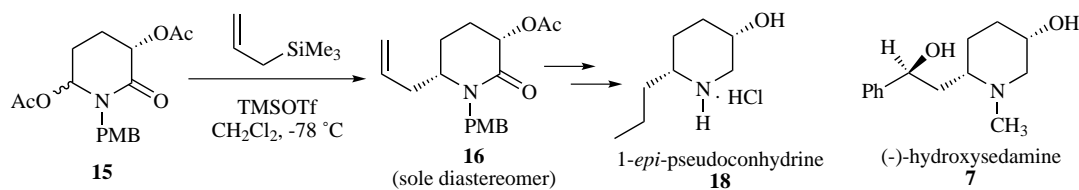
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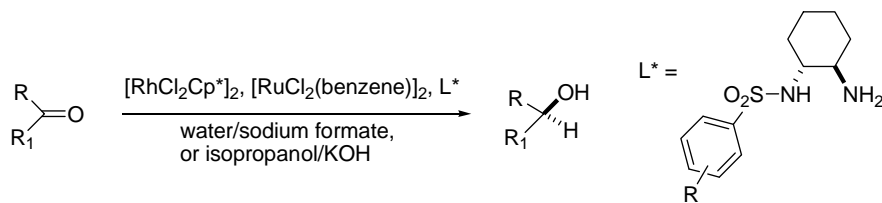
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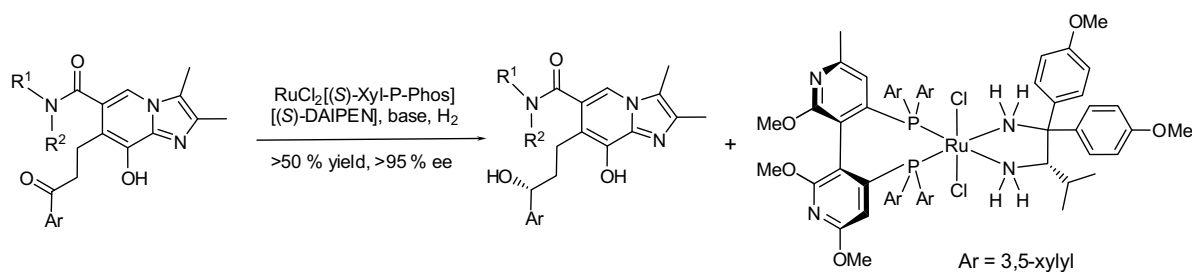
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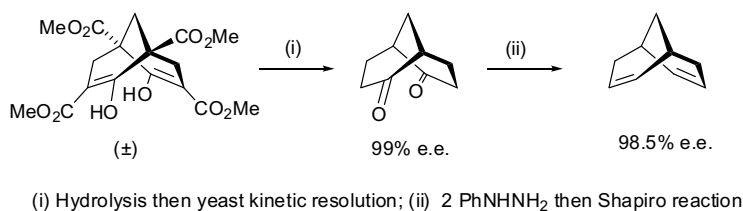
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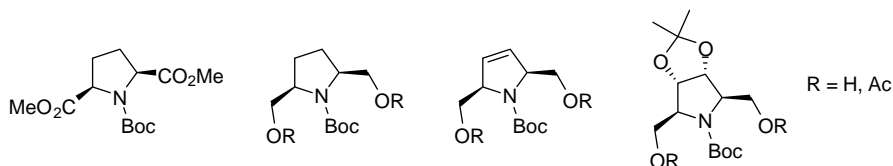
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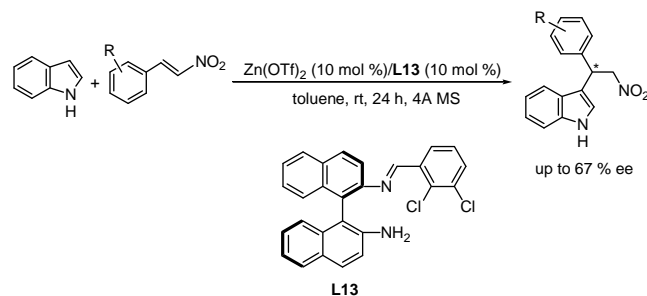


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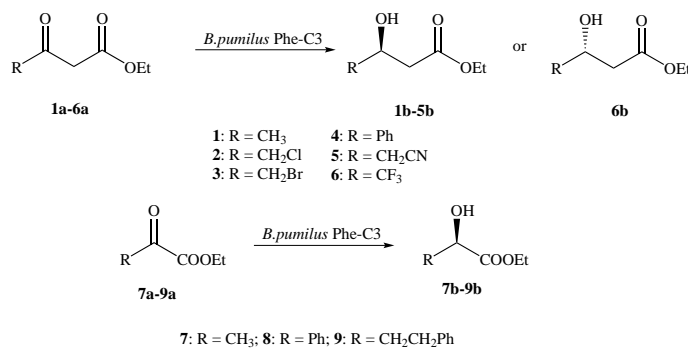
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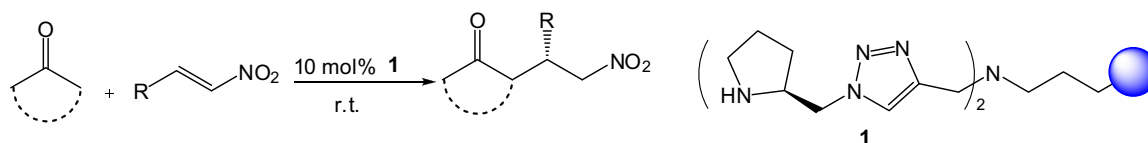
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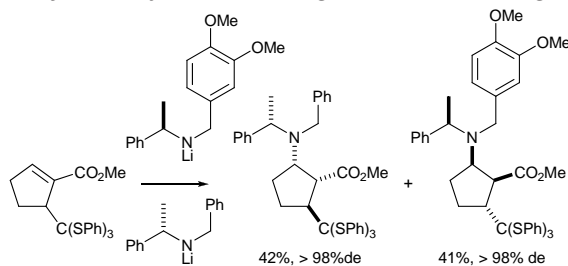
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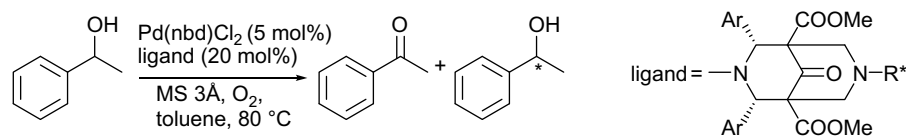


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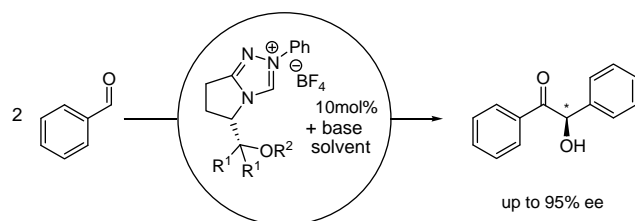
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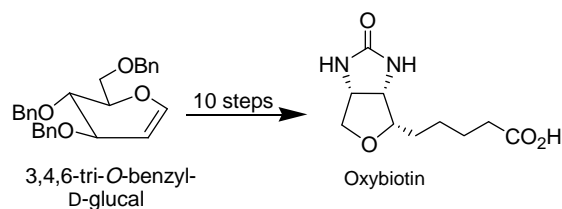
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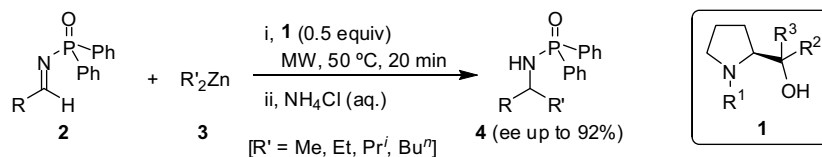
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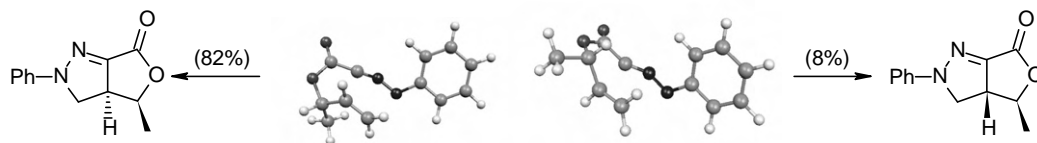
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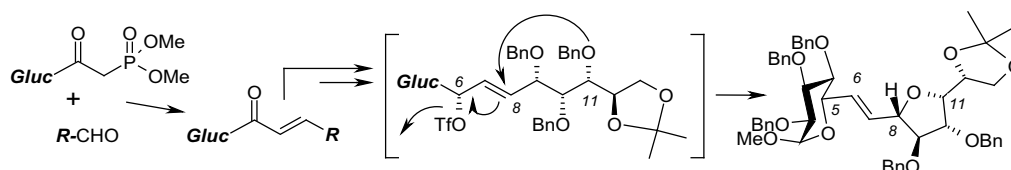
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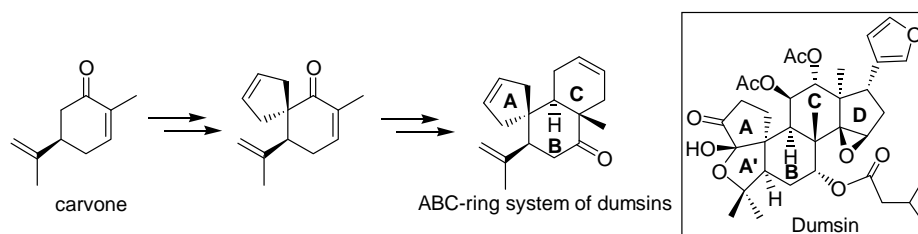
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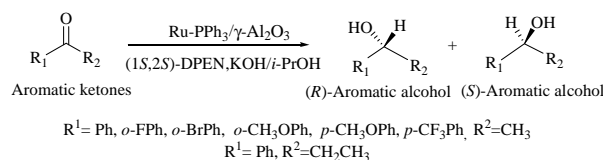
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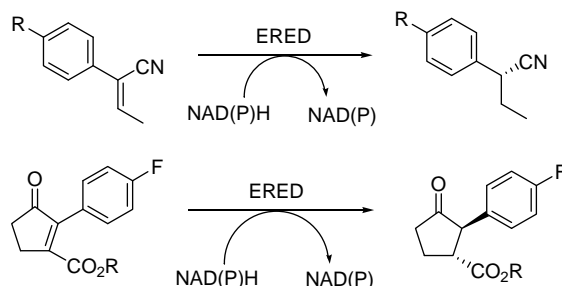
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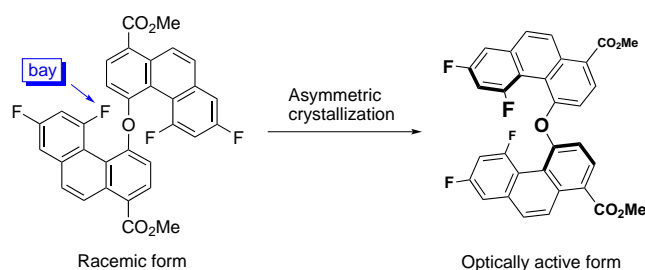
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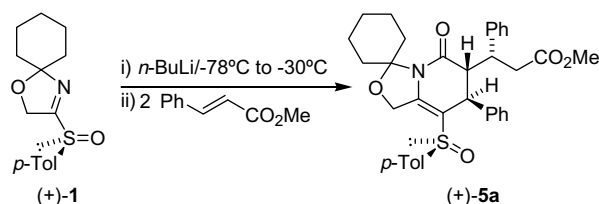
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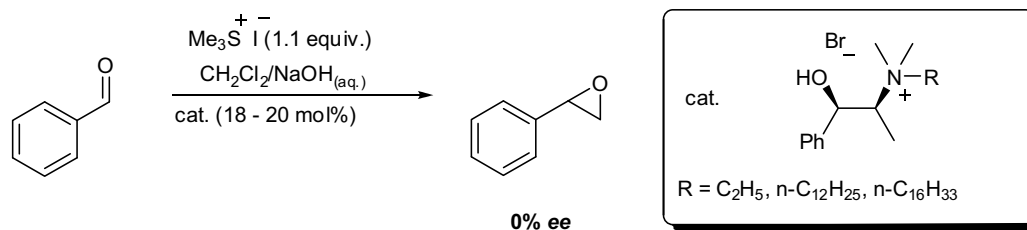
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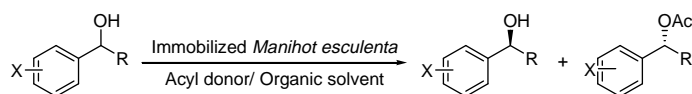


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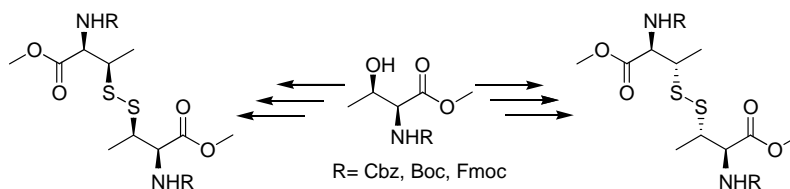
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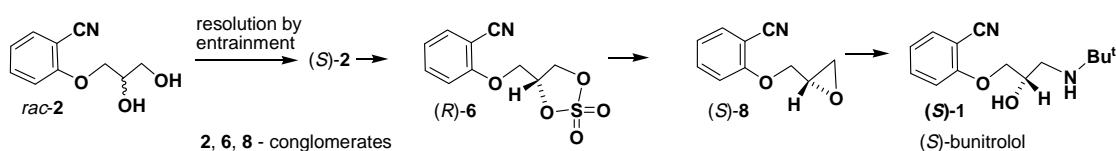
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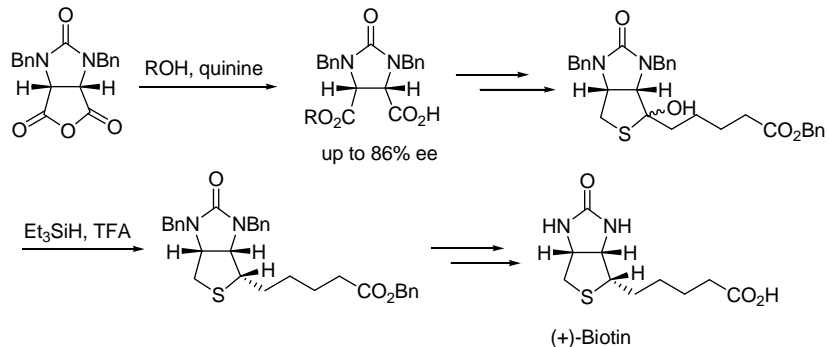
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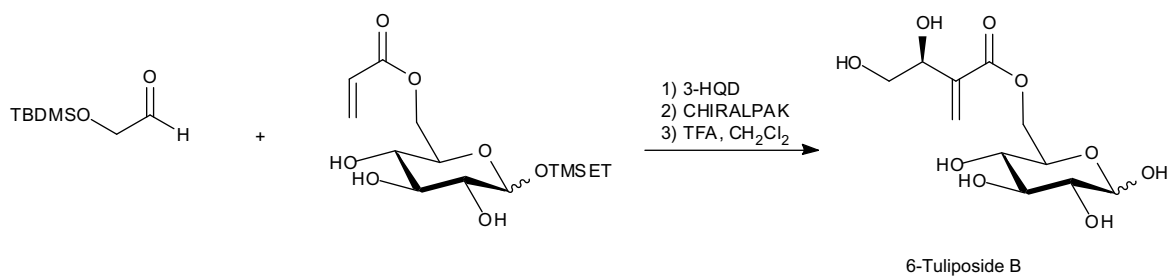
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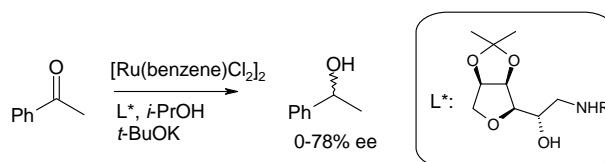
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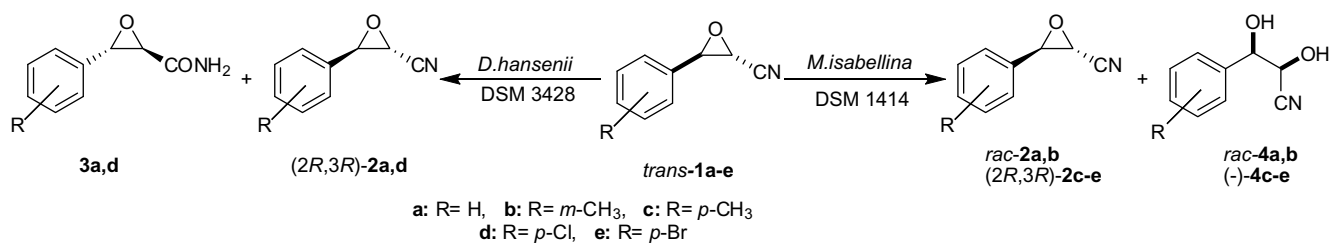
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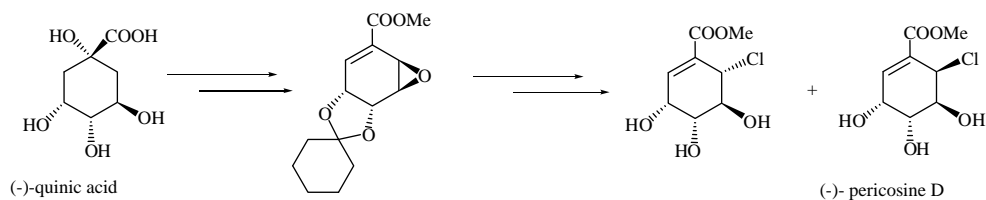
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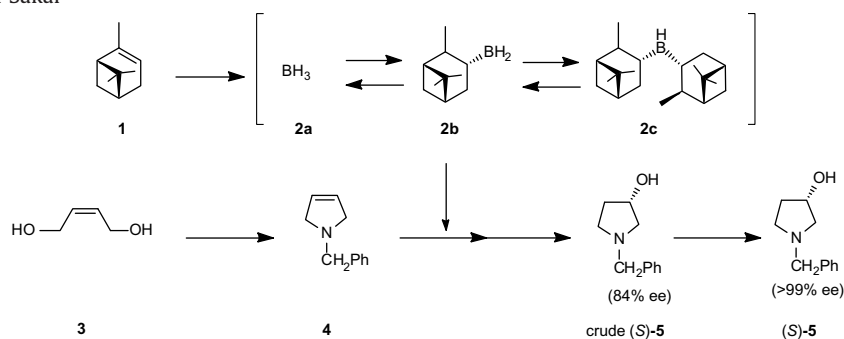
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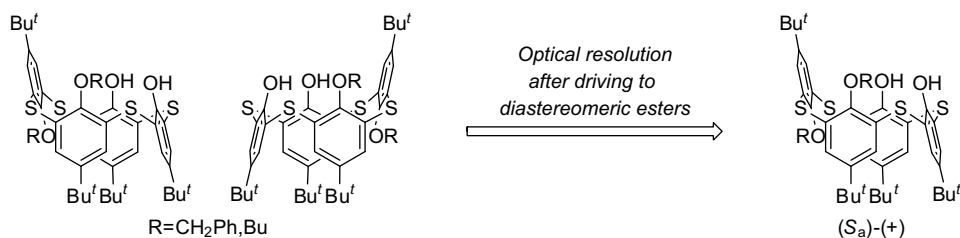
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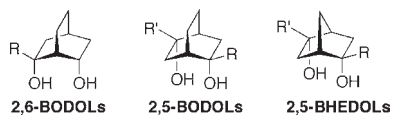
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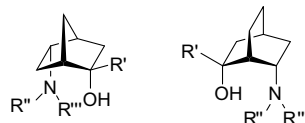
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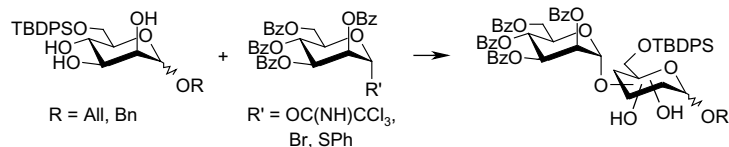
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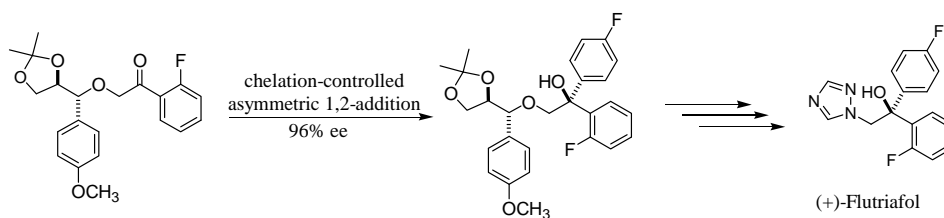
Cecilia Olsson, Sara Helgesson, Torbjörn Frejd *



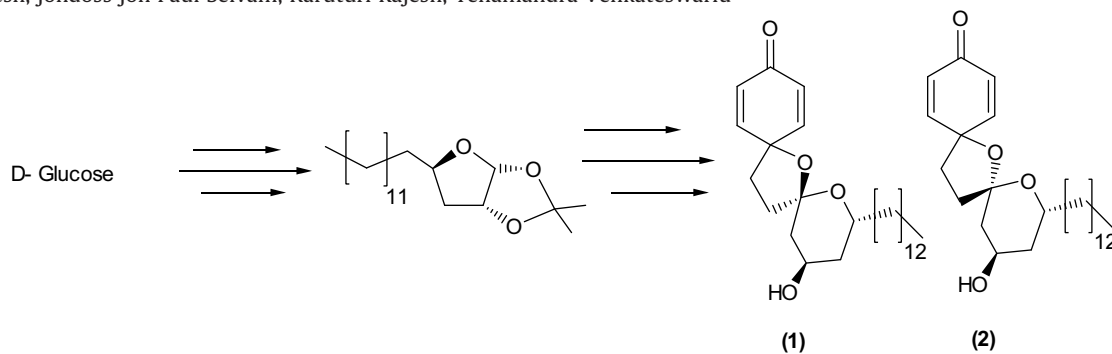
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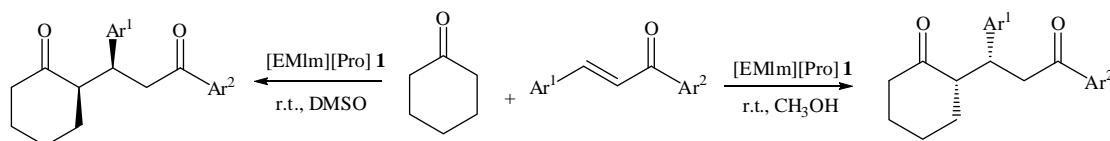
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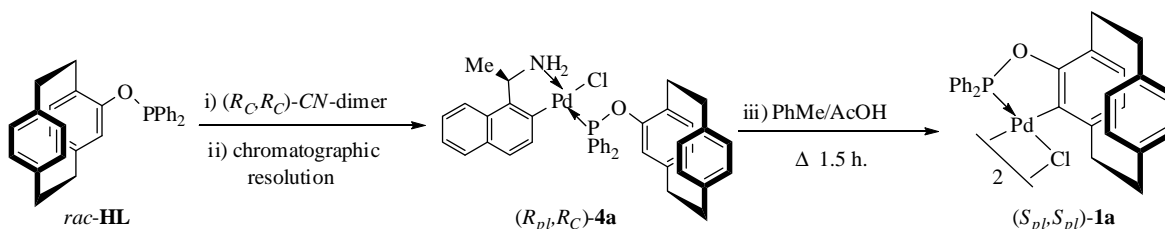
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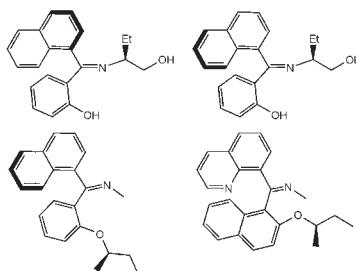
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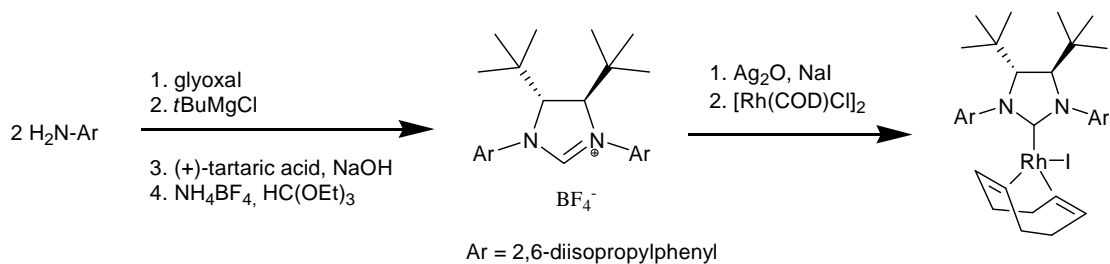
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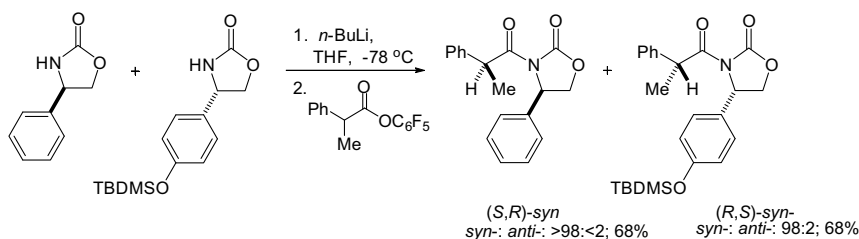
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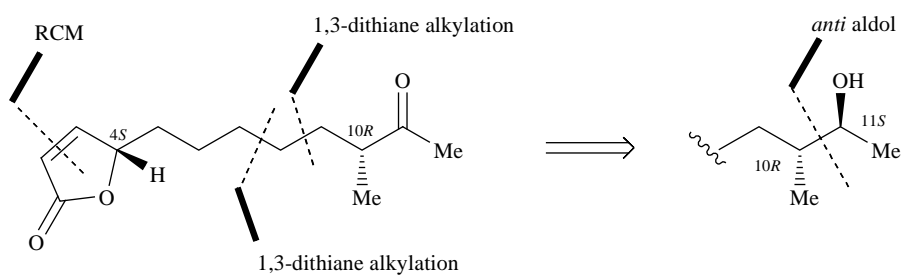
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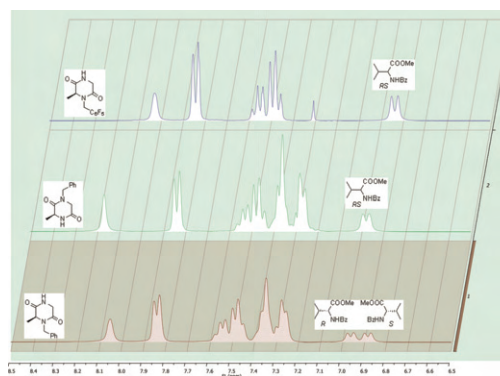
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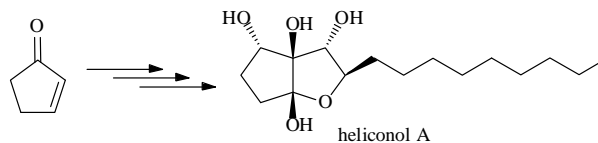
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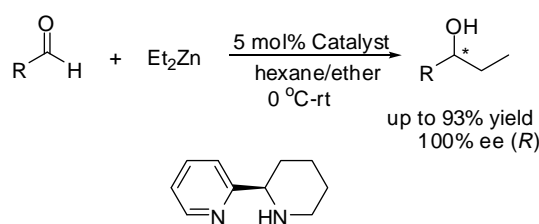
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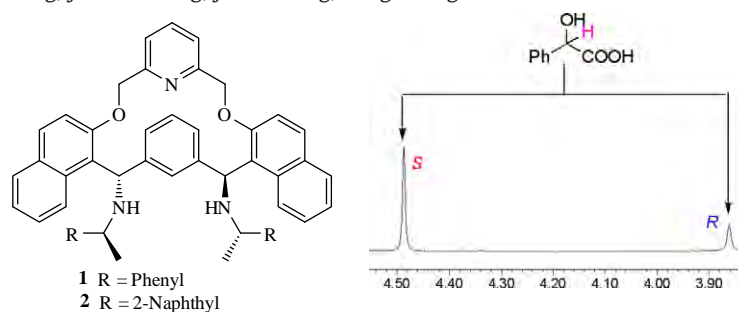
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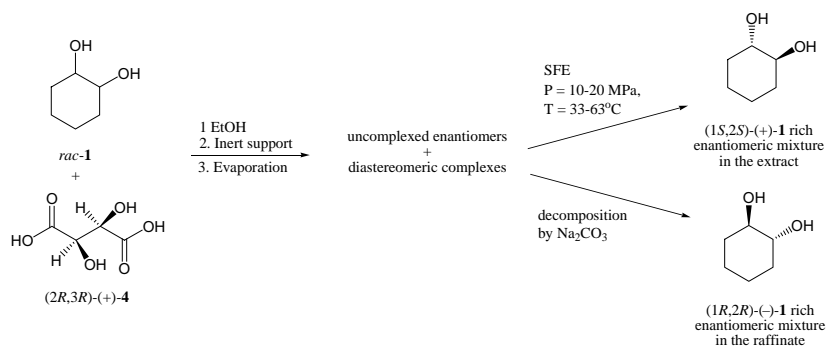
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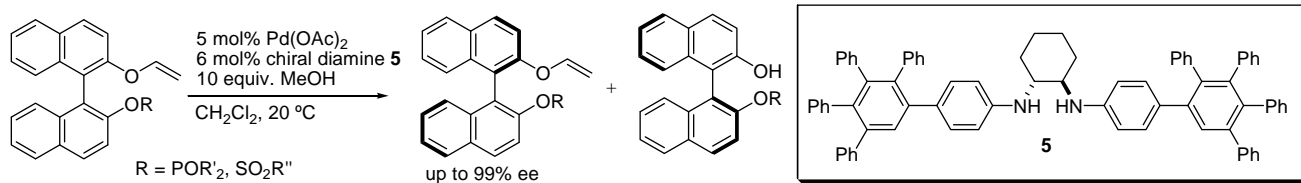
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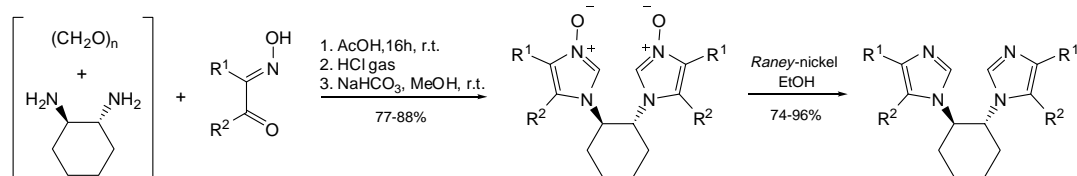
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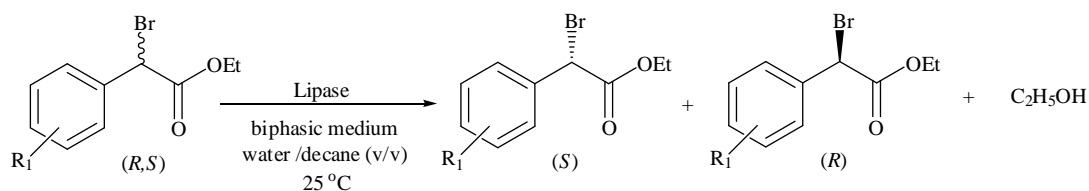
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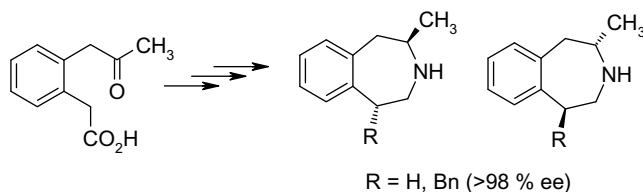
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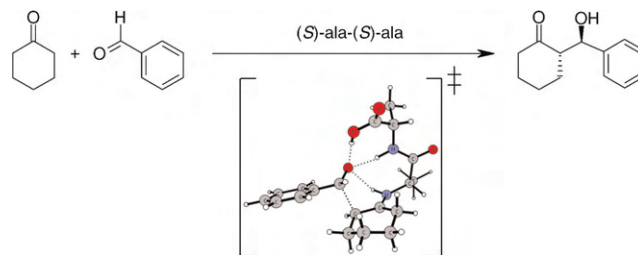
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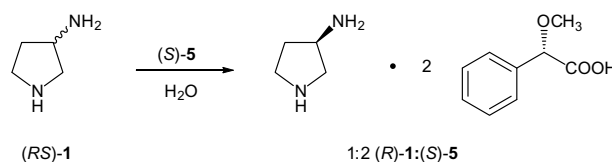
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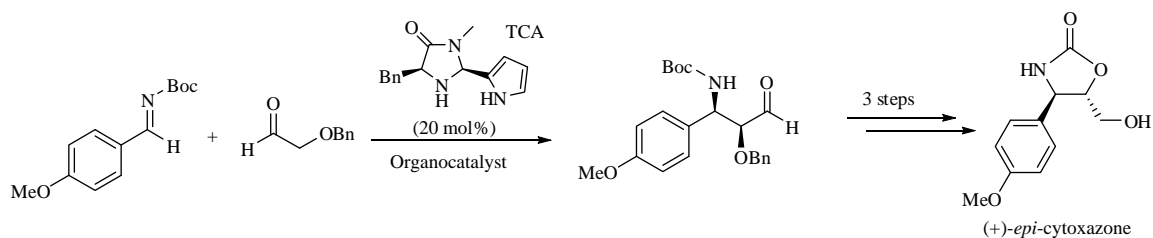
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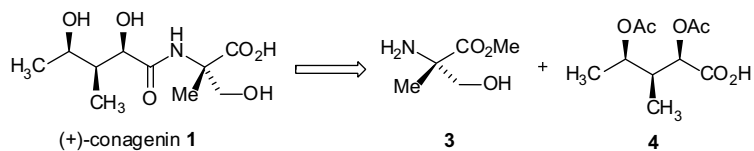
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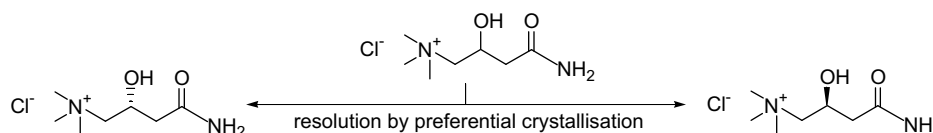
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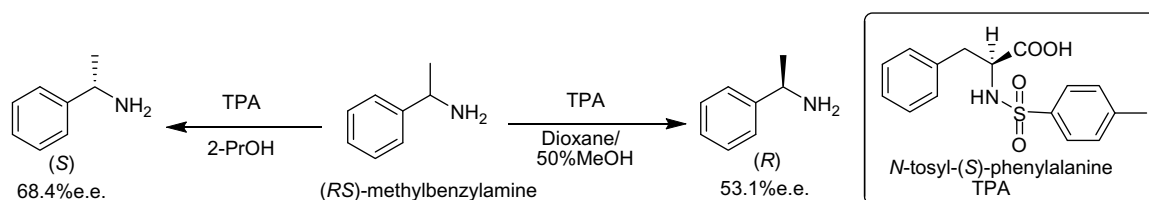


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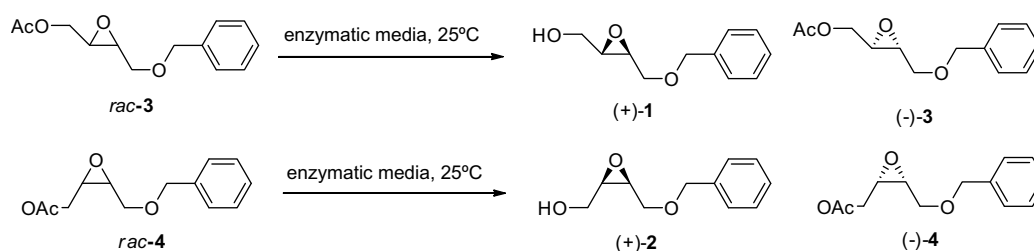
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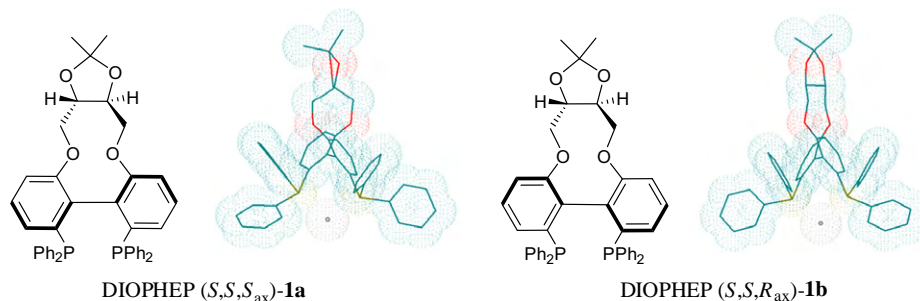
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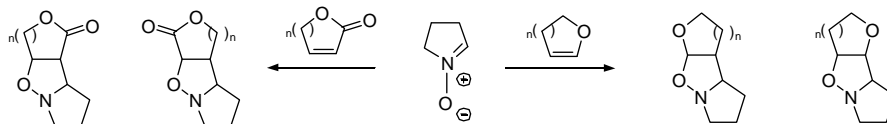
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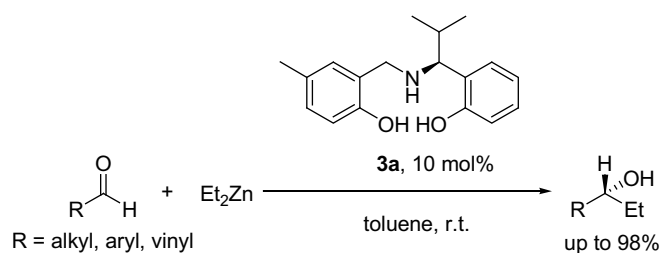
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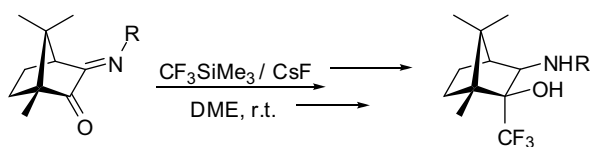
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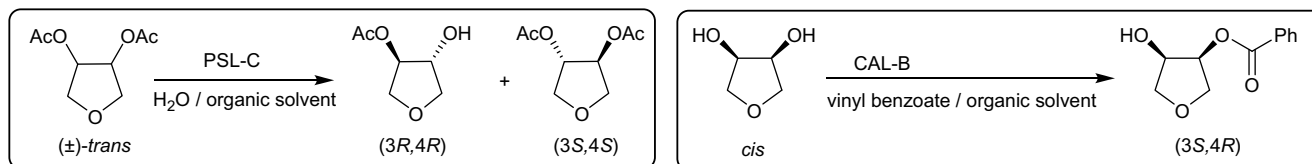
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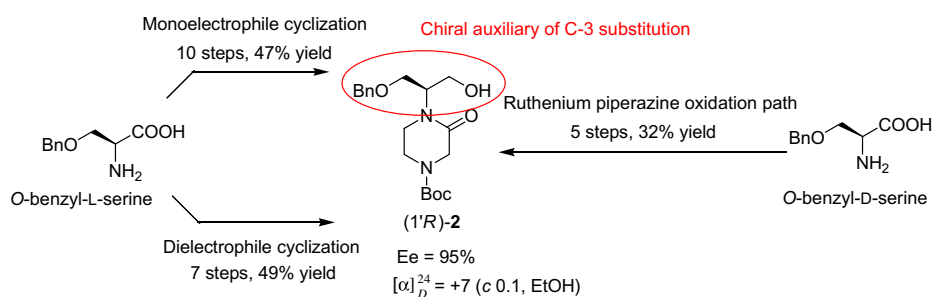
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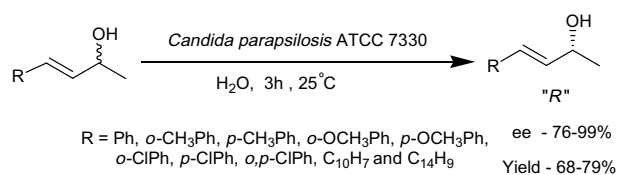
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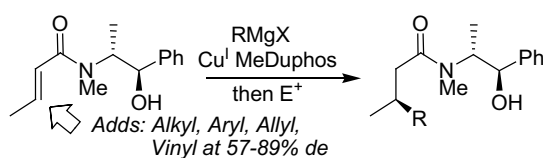
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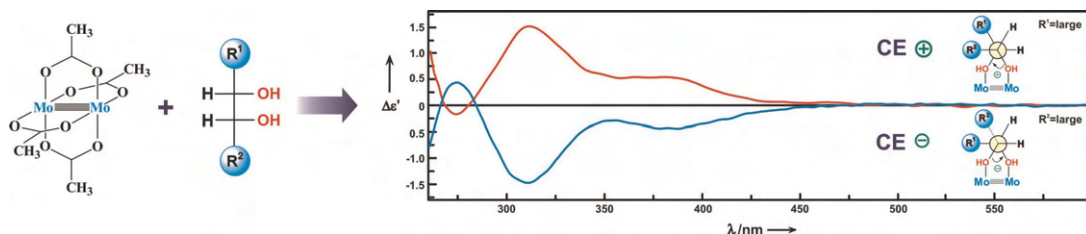
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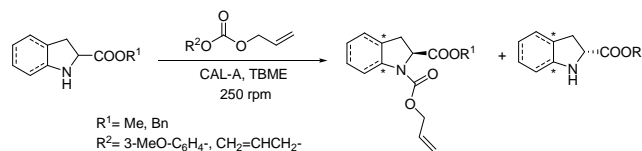
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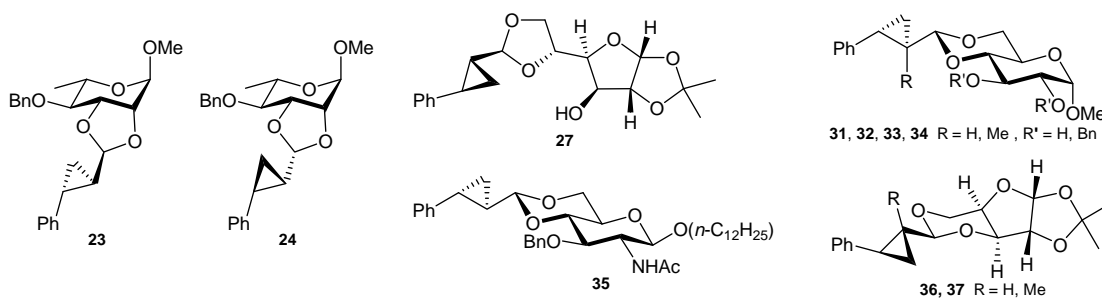
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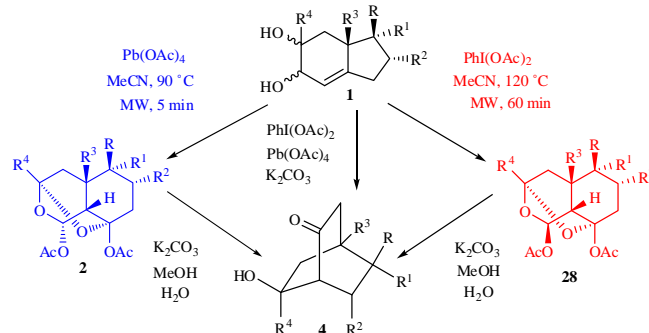
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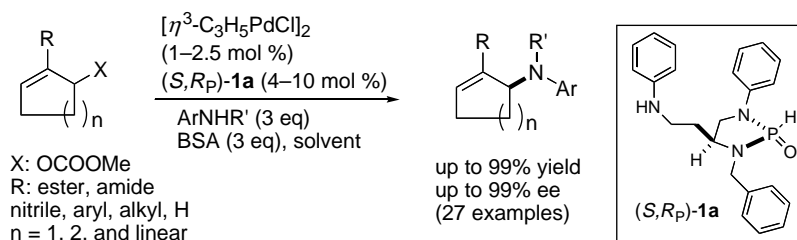
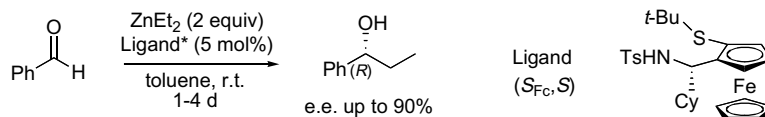


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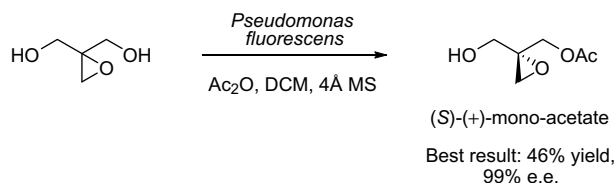
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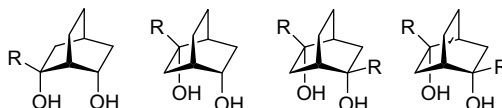


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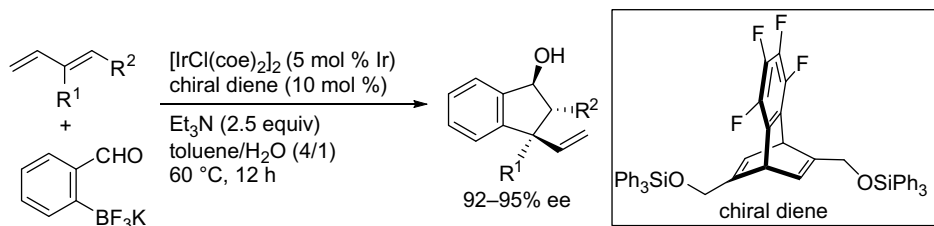


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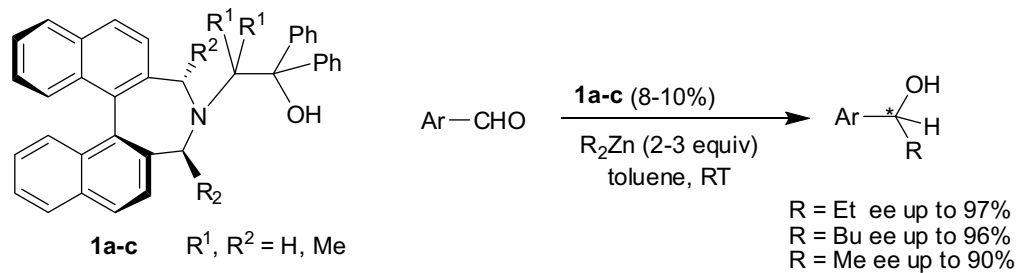
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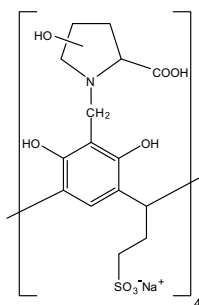
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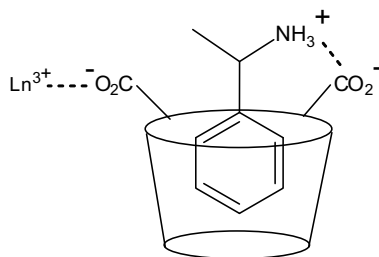
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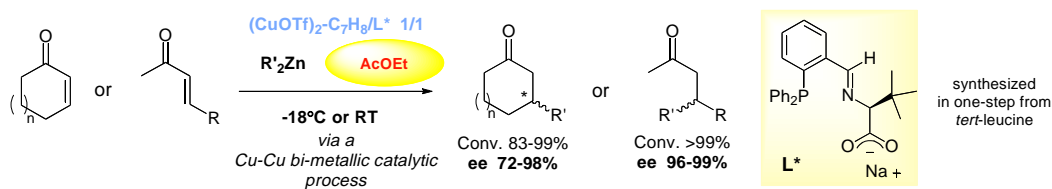
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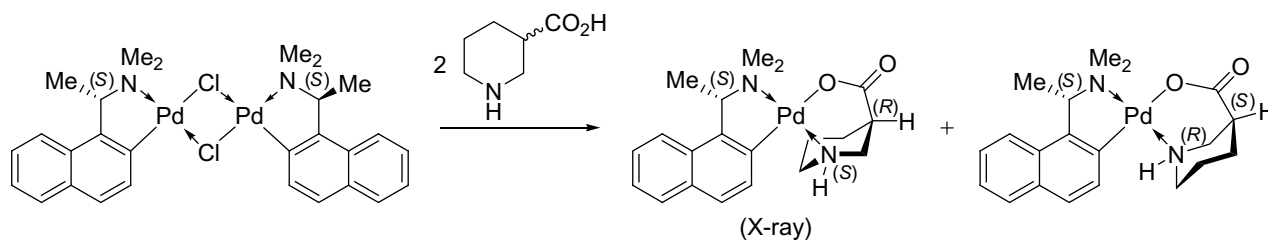
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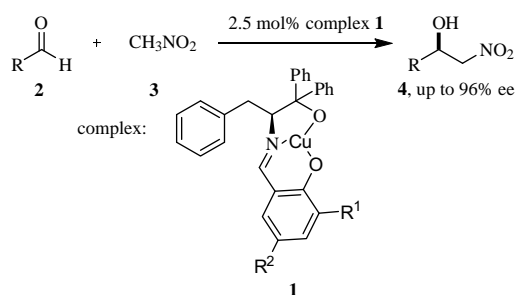
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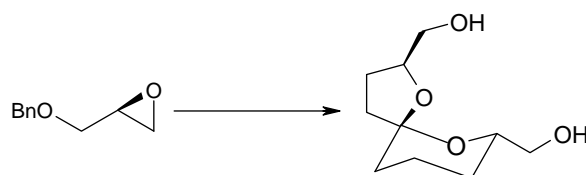
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Stereoselective synthesis of 1,6-dioxaspiro[4.5]decane chiral spiroketal skeleton via C₂-symmetric approach using crossmetathesis

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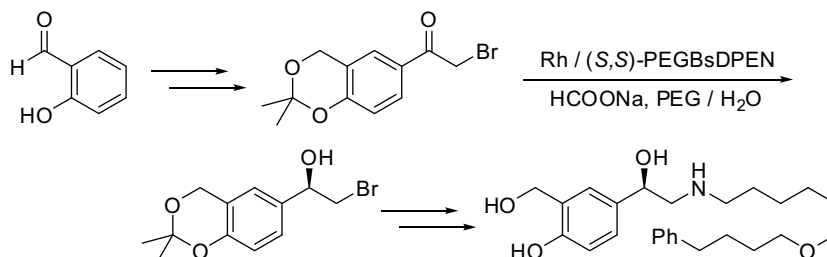
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A convenient synthesis of (*R*)-salmeterol via Rh-catalyzed asymmetric transfer hydrogenation

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Juntao Liu, Di Zhou, Xian Jia, Ling Huang, Xingshu Li *, Albert S. C. Chan

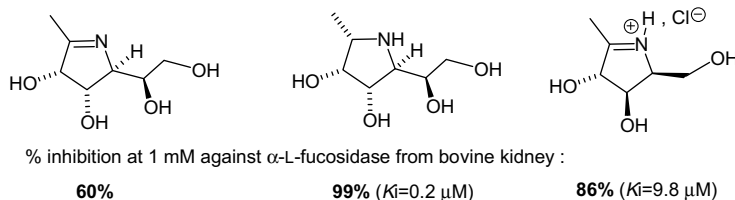


(*R*)-Salmeterol was synthesized in eight steps with salicylaldehyde as the starting material. The key chiral intermediate was prepared via Rh-catalyzed asymmetric transfer hydrogenation under mild conditions.

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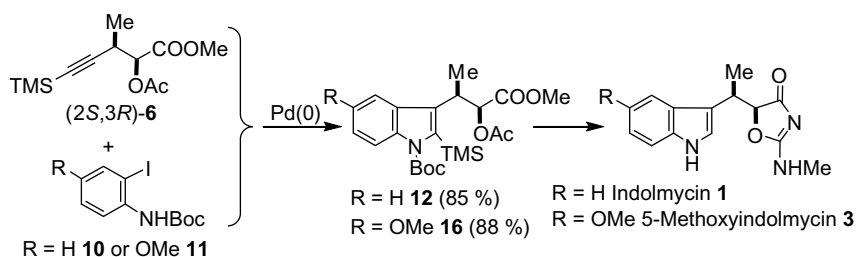
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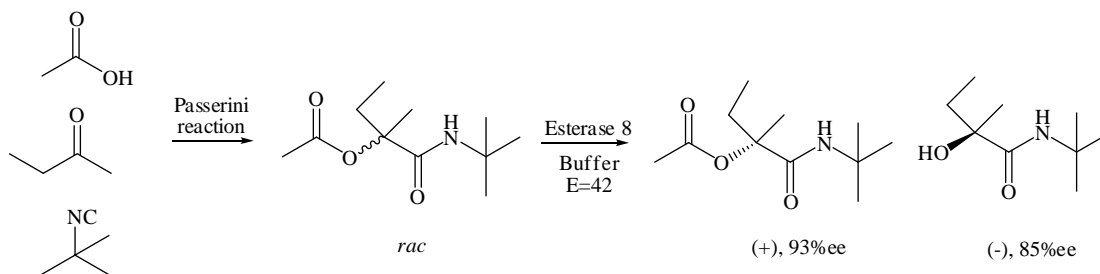
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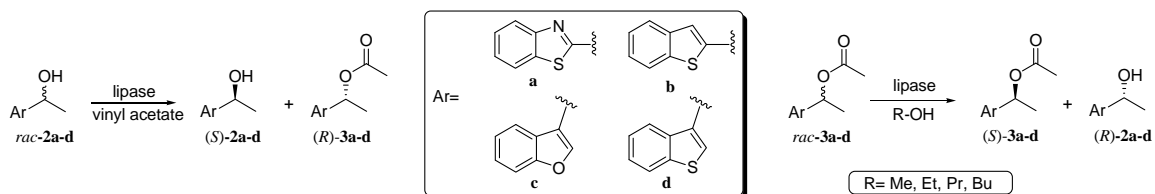
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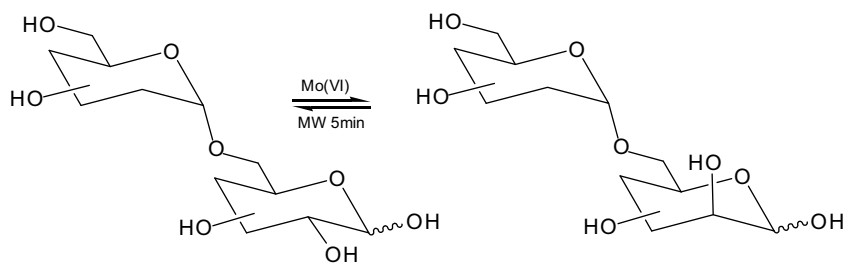
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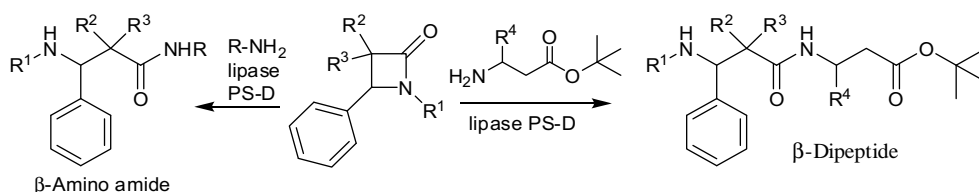
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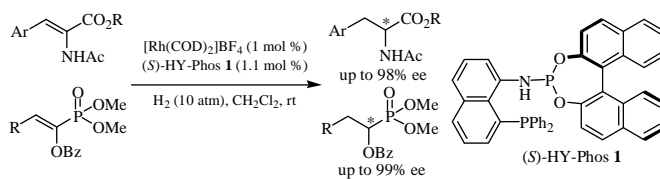
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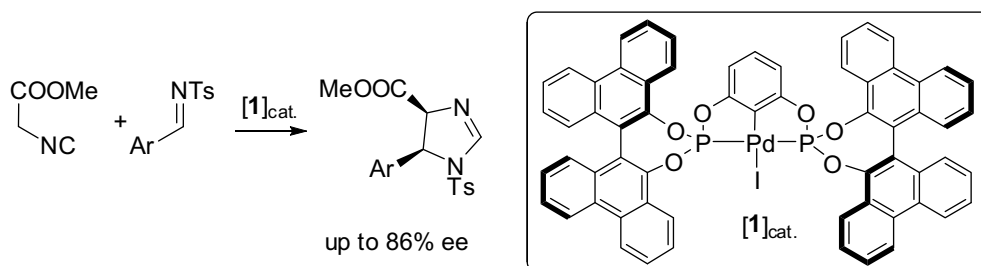
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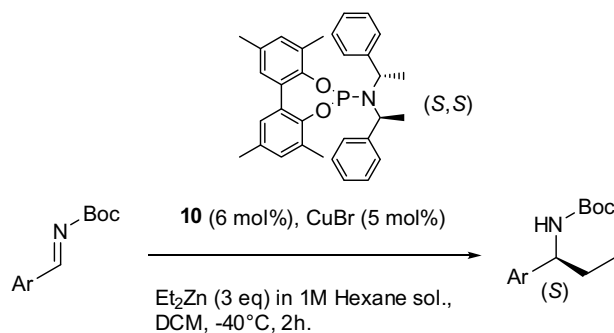
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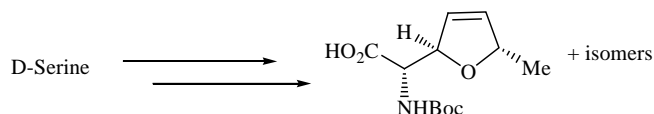
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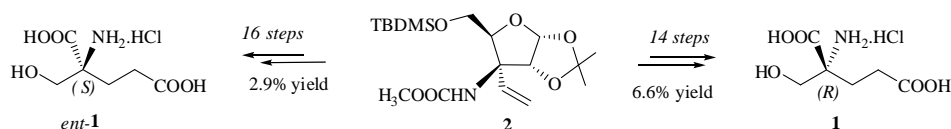


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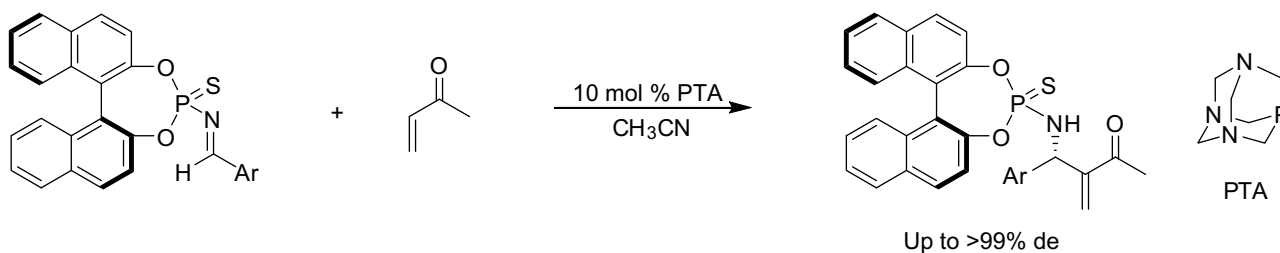
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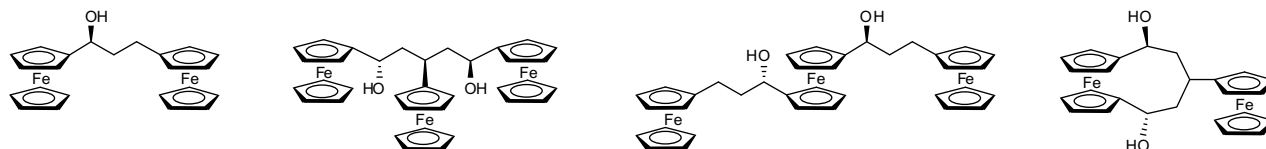
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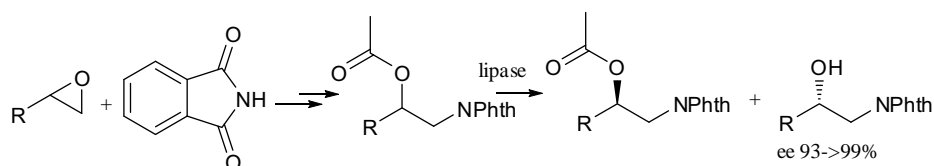
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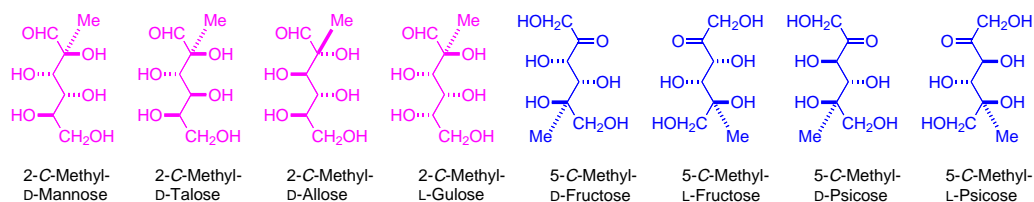
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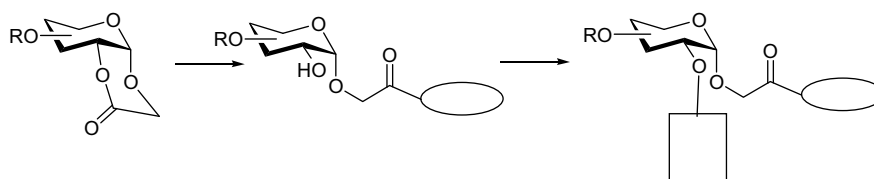
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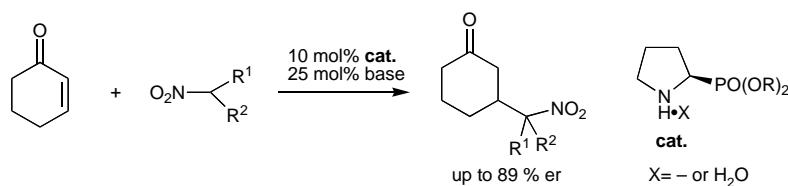
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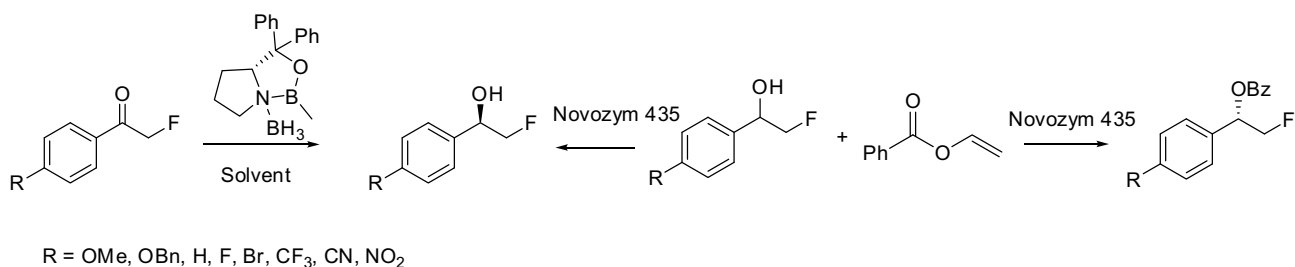
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**Asymmetric reduction using (*R*)-MeCBS and determination of absolute configuration of *para*-substituted 2-fluoroarylethanols**

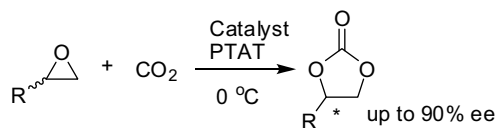
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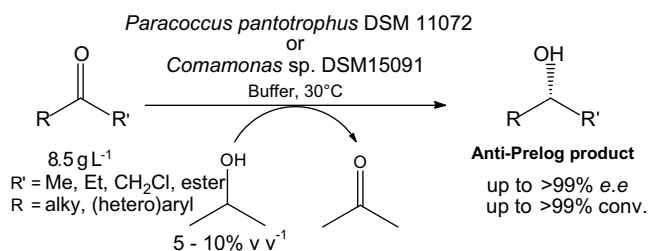


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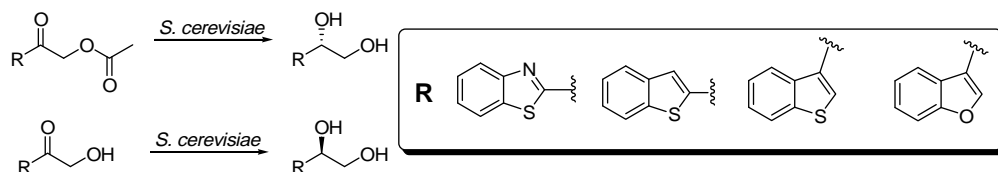
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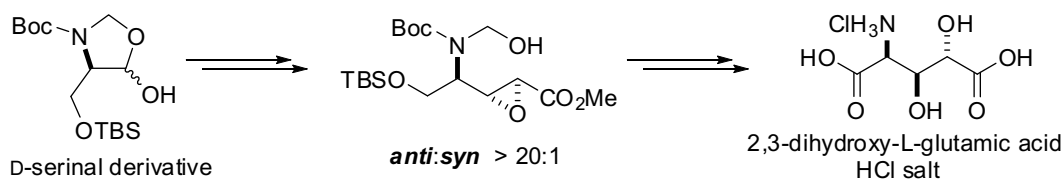
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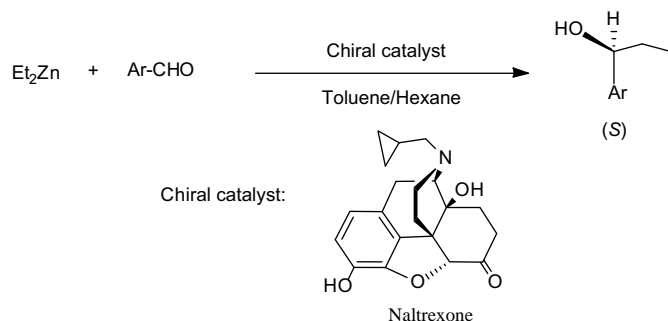
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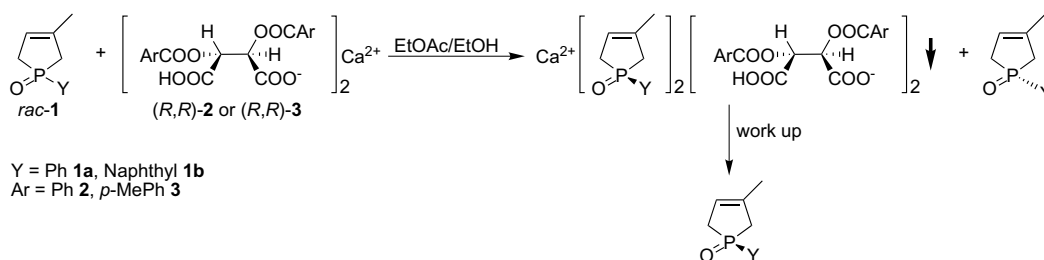
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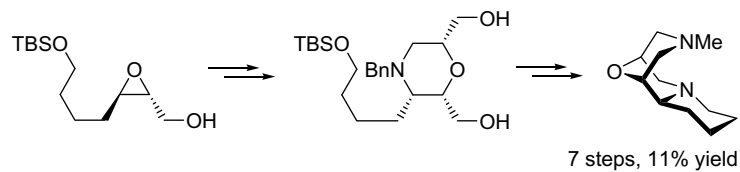
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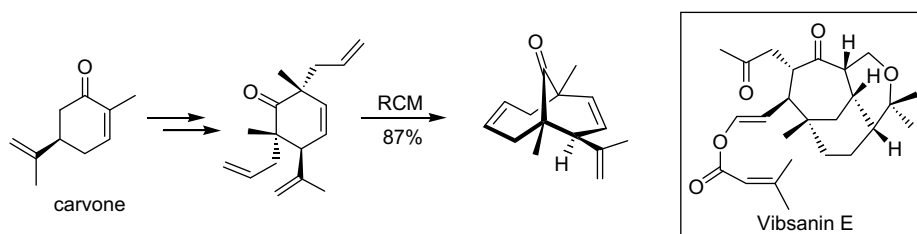
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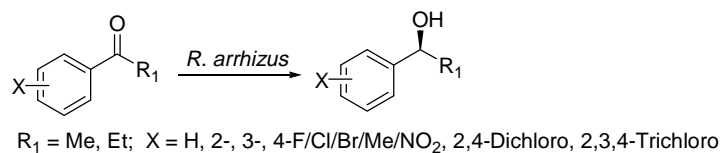
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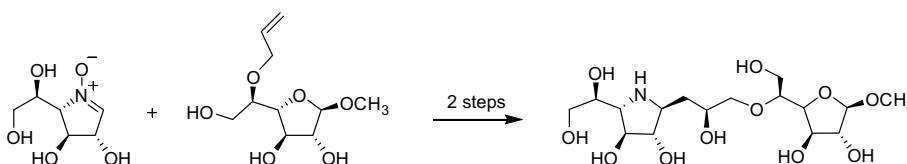
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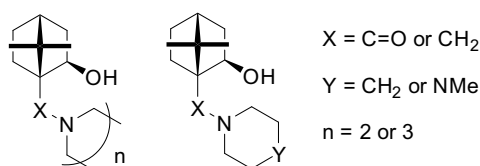
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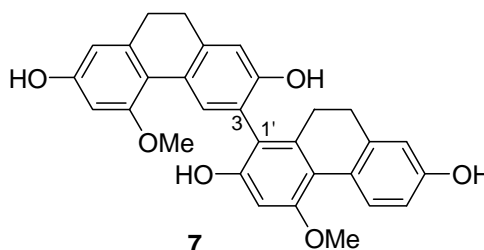
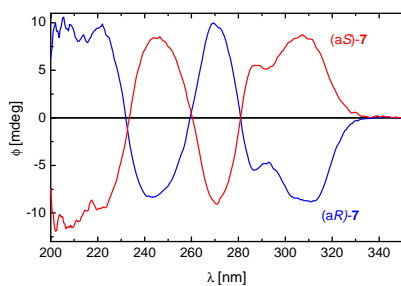
Structural factors exert different effects on the catalytic activity (enantioselective addition of diethylzinc to benzaldehyde) depending on the ligand type (functional grouping).

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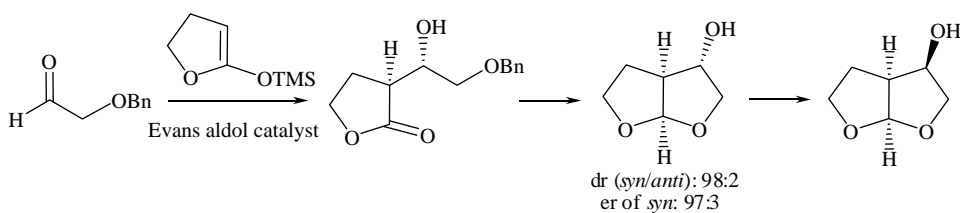
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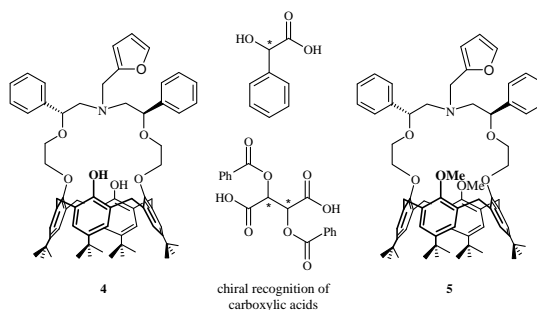
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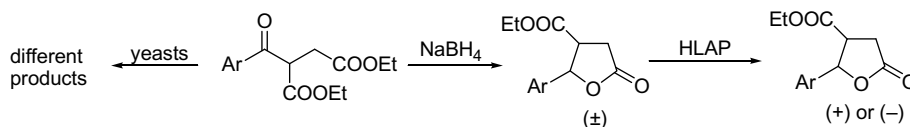
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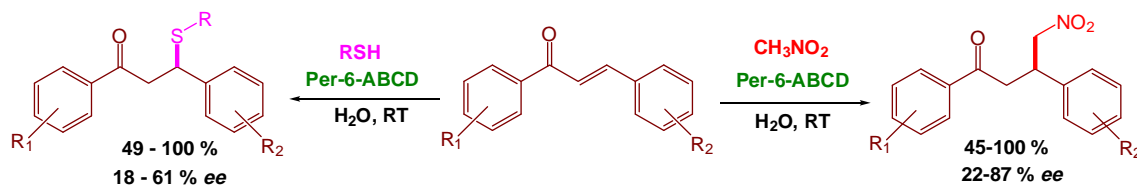
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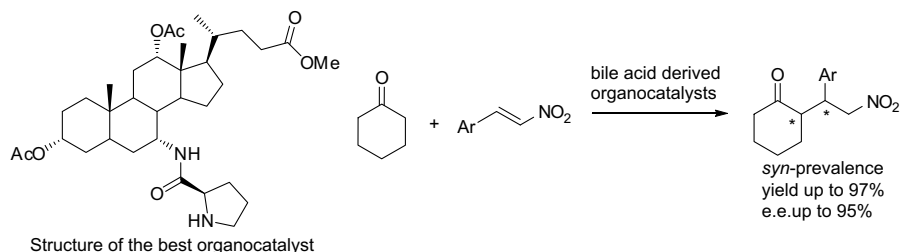
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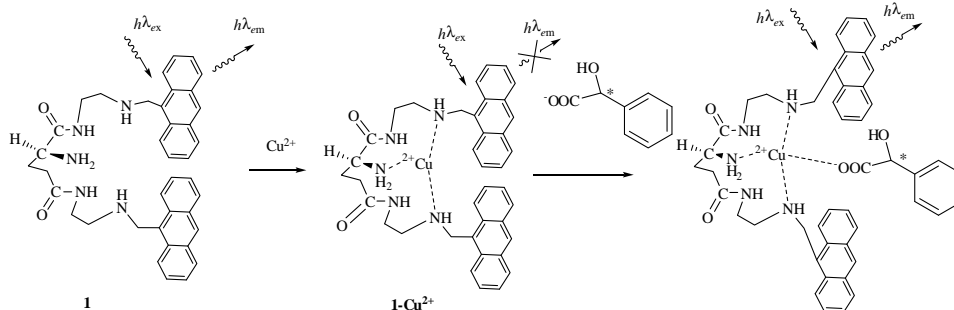
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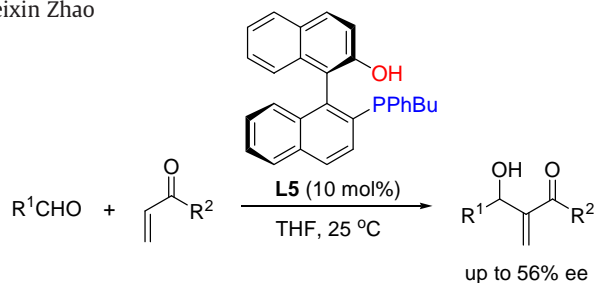
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Bifunctional chiral phosphine-containing Lewis base catalyzed asymmetric Morita–Baylis–Hillman reaction of aldehydes with activated alkenes

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Zhi-Yu Lei, Xu-Guang Liu, Min Shi *, Meixin Zhao

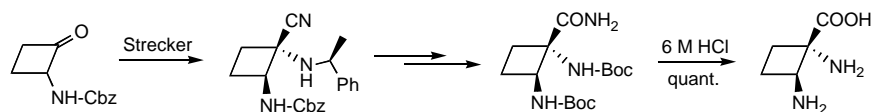


A series of novel bifunctional chiral phosphine-containing Lewis bases were synthesized and successfully applied to the asymmetric Morita–Baylis–Hillman reaction of aldehydes with methyl vinyl ketone (MVK) and ethyl vinyl ketone (EVK) to give the corresponding adducts in moderate yields and enantioselectivities under mild reaction conditions.

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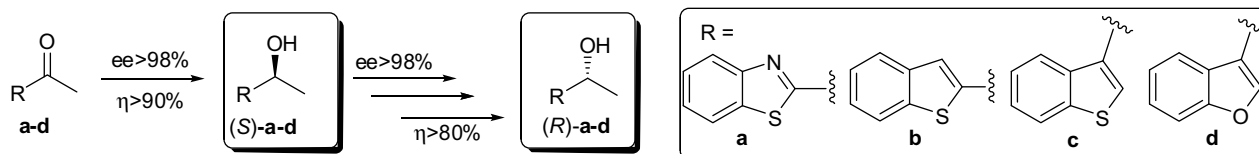
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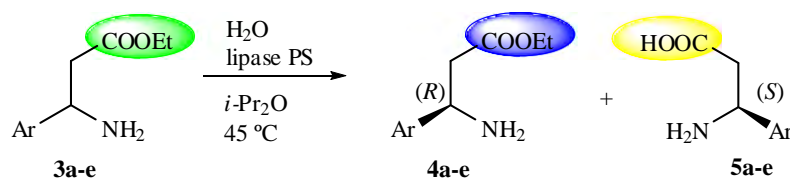
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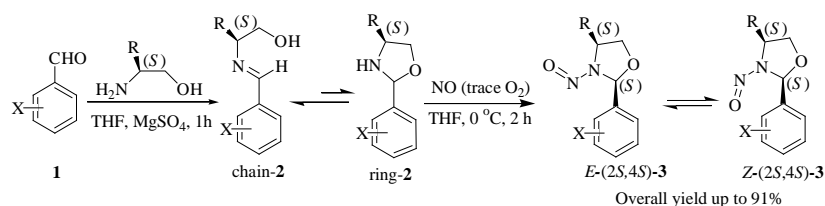
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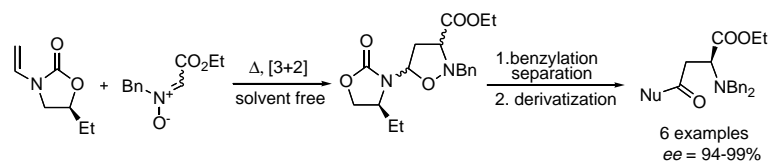
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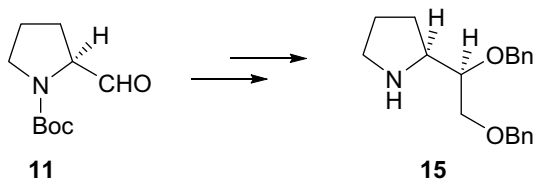
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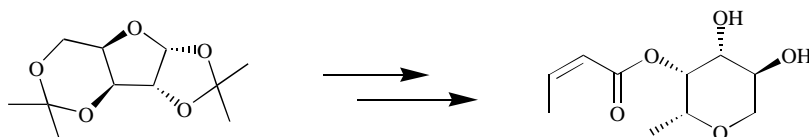
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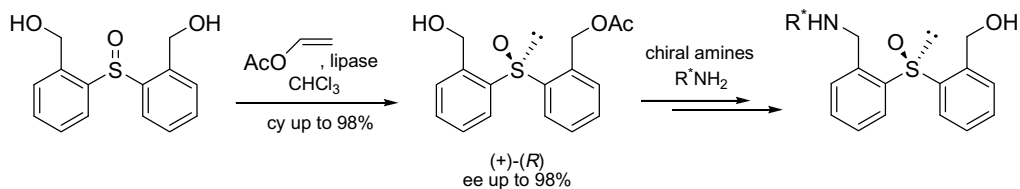
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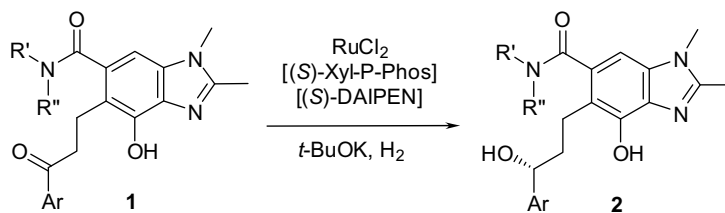
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Andreas Marc Palmer ^{*}, Vittoria Chiesa, Hans Christof Holst, Jacques Le Paih, Antonio Zanotti-Gerosa ^{*}, Ulrike Nettekoven

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