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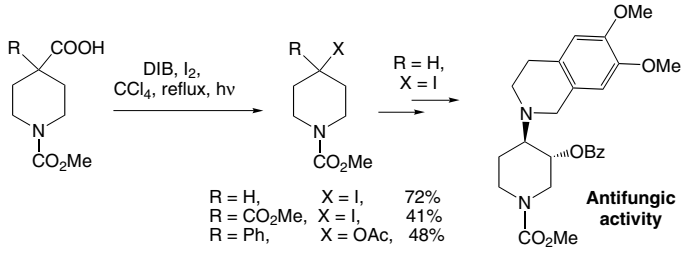
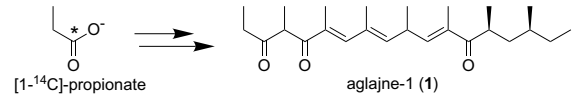
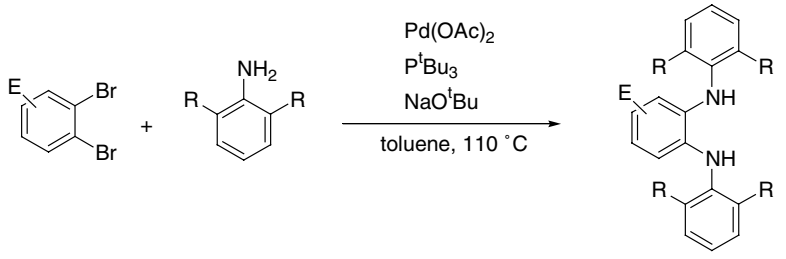
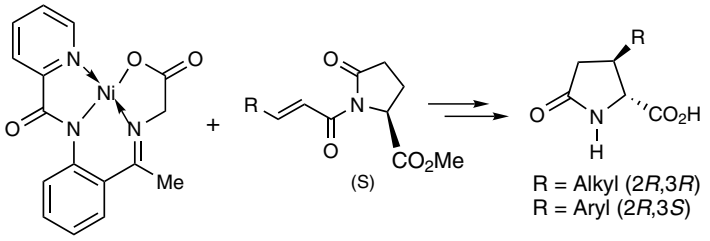
Contents

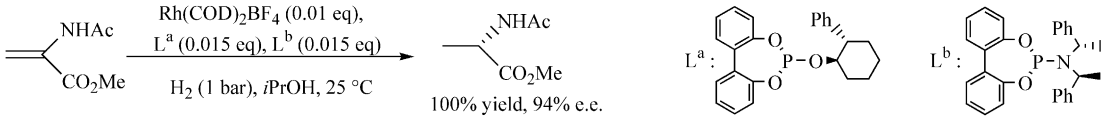
COMMUNICATIONS



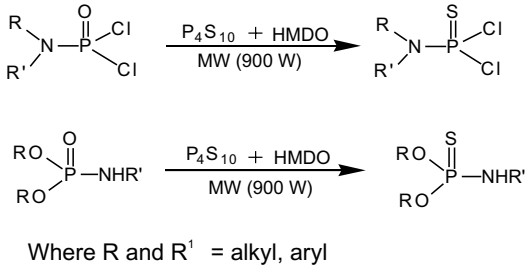


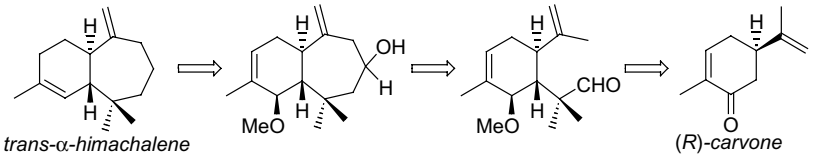


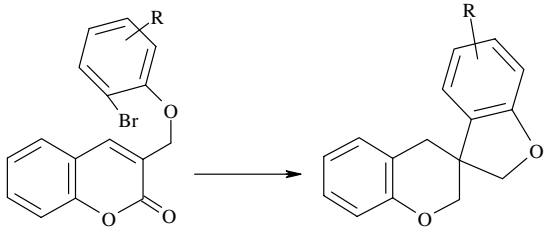


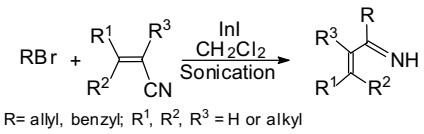


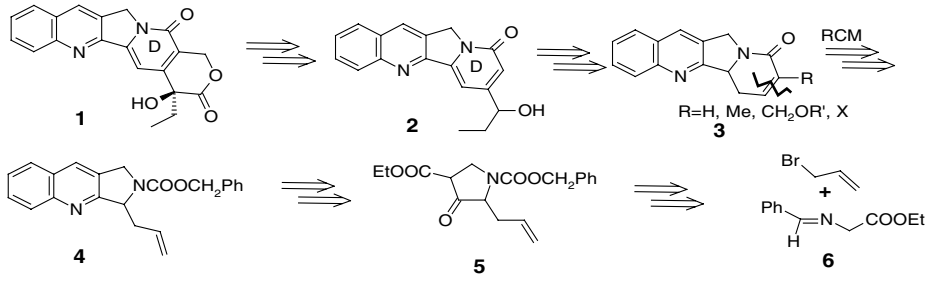
A number of homo- (16) and heterocombinations (115) of chiral tropos phosphorus-ligands were screened for the rhodium catalysed asymmetric hydrogenation of methyl *N*-acetamido acrylate, resulting in the identification of an extremely effective and enantioselective (100% yield, 94% ee) phosphite/phosphoramidite heterocombination.

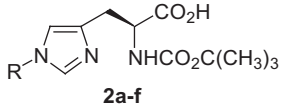




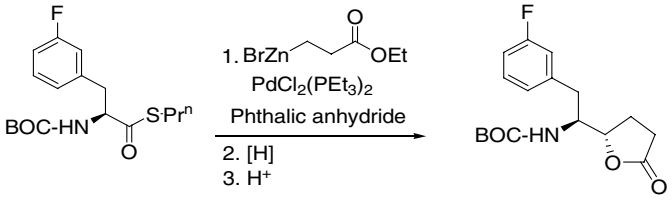




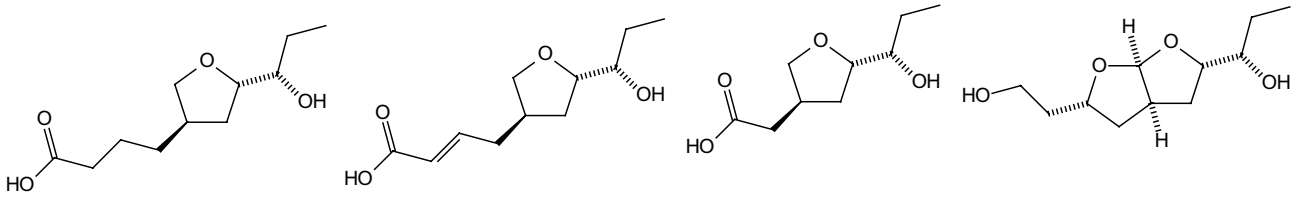




A convenient one-step synthesis of *N*-α-Boc-1-alkyl-L-histidines **2a**–**f** starting from Boc-L-histidine is described.

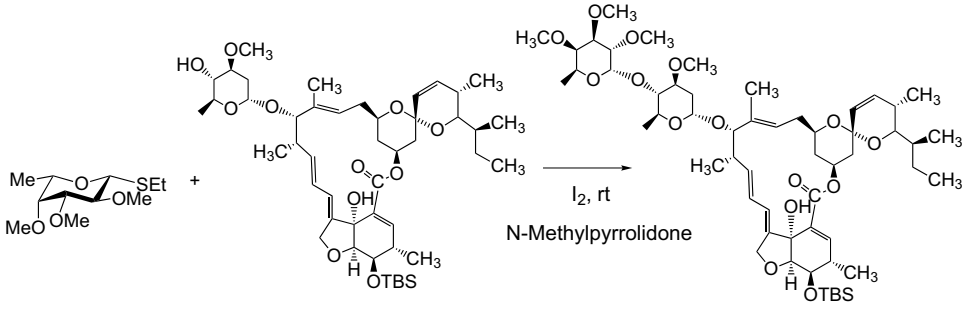


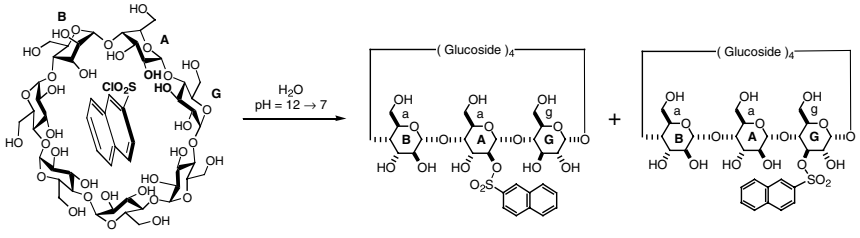
Phthalic anhydride as thiolate scavenger effectively preserved the enantiopurity of α-aminoketone, thus affording the convenient synthesis of the titled lactone.

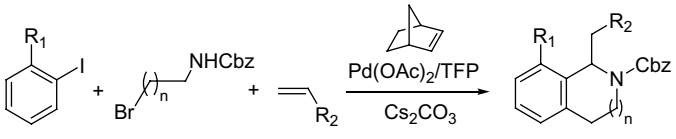


1 **2** **3** **4**

Communiols A–D (**1**–**4**), new tetrahydrofuran and bis-tetrahydrofuran derivatives, have been isolated from cultures of the coprophilous fungus *Podospora communis*, and identified by spectroscopic methods.

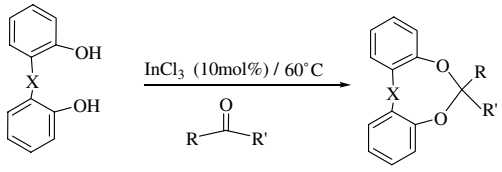




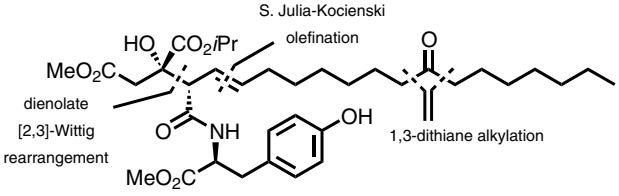


R_1 = Me, Et, *i*-Pr
R_2 = CO_2Me, CO_2tBu, COMe

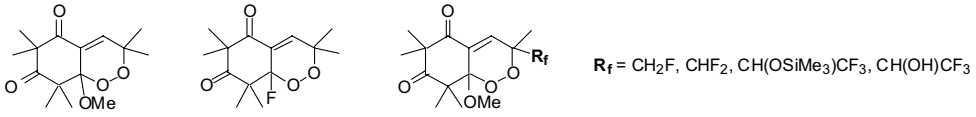
n = 1, 2

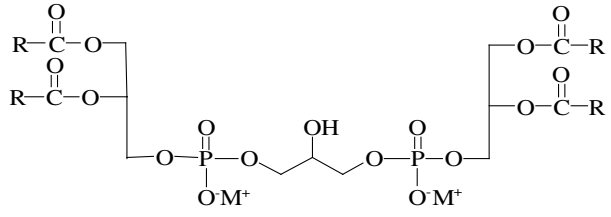


a) X= bond
b) X= CH_2

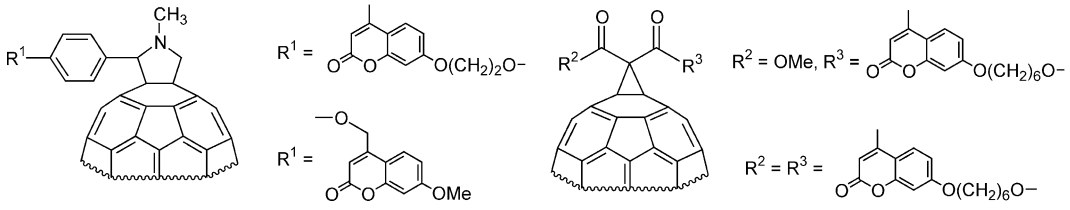


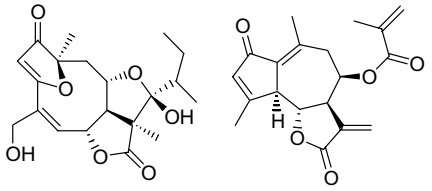
The total synthesis of an alkylcitrate secondary metabolite from the fungi *Trichoderma viride* is described.





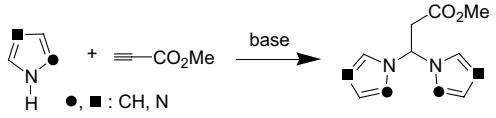
1 Cardiolipin, R = fatty acid chain, $M^+ = H^+$
1a Tetramyristoyl cardiolipin, $M^+ = NH_4^+$
1b Tetraoleoyl cardiolipin, $M^+ = NH_4^+$





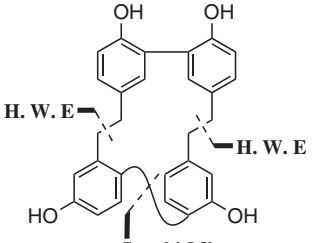
1 **2**

The prediction of ^{1}H NMR chemical shifts of CH_n protons of the sesquiterpene lactones **1** and **2** using neural networks was performed and the results were highly accurate. This method has the ability to assign CH_2 diastereotopic protons of 3D structures.

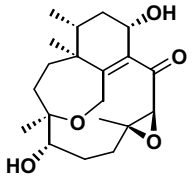


An unusual double Michael addition is used for the synthesis of 3,3-bis(azol-1-yl)propionates.

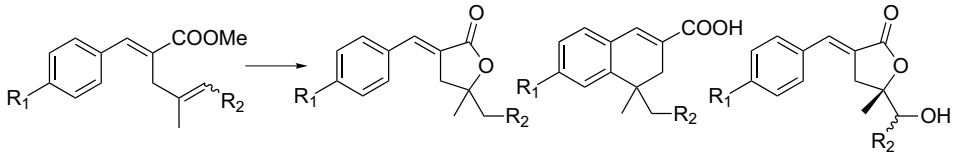
Isoplagiochin D, a highly strained macrocyclic bis(bibenzyls) isolated from the liverwort *Pladiochila fruticosa*, was synthesized in 10.6% overall yield for the 11 steps by using Horner–Wadsworth–Emmons and Suzuki–Miyaura protocols.

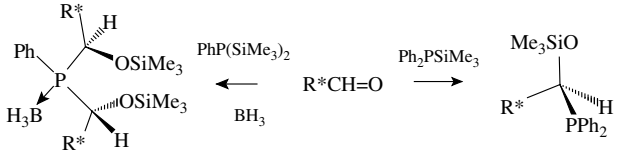


Isoplagiotin D

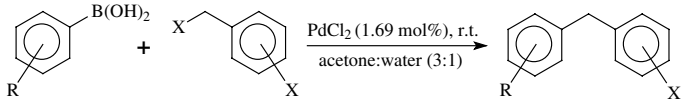


Phomactin H

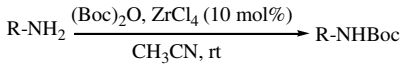




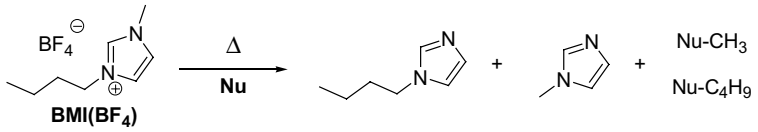
The reaction between diphenyl(trimethylsilyl)phosphine or bis(trimethylsilyl)phenylphosphine and chiral aldehydes proceeds with high stereoselectivity to give diastereomerically pure tertiary α-siloxyalkylphosphines.

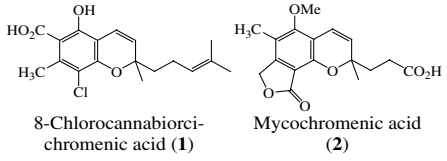


A highly efficient Suzuki cross-coupling reaction between benzylic halides and aryl boronic acids using palladium chloride as catalyst in acetone:water (3:1) has been developed. High yields of products, mild reaction conditions and short reaction times in the absence of ligand are important features of this method.

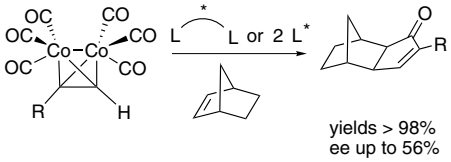


Efficient Boc protection of amines using $(Boc)_2O$ in the presence of a catalytic amount of $ZrCl_4$ (10 mol %) in acetonitrile at room temperature is reported with short reaction times and high yields.





Two chromene carboxylic acids having a fully substituted benzene ring, 8-chlorocannabiorcichromenic acid (**1**) and myco-chromenic acid (**2**), were synthesized via thermal cyclization of the corresponding four substituted phenyl propargyl ethers.



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*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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