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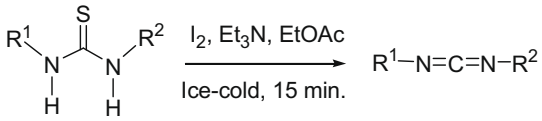
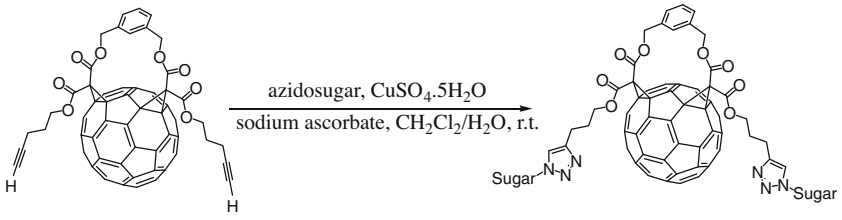
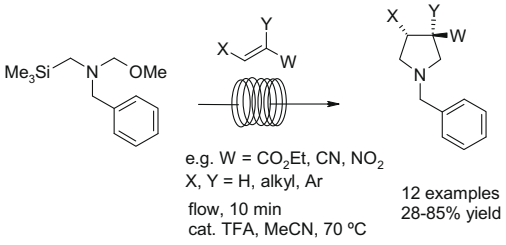
Contents

COMMUNICATIONS

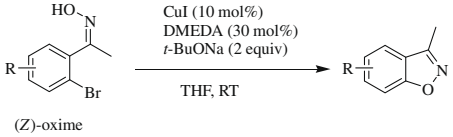


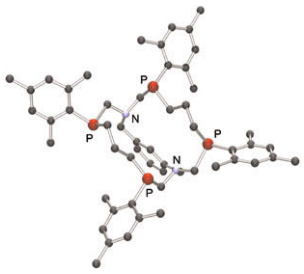


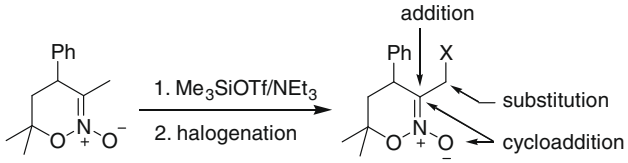
C_{60} derivative bearing terminal alkyne functional group has been used as a building block under copper-catalyzed azide-alkyne cycloaddition conditions to produce a series of fullerene glycoconjugate derivatives.



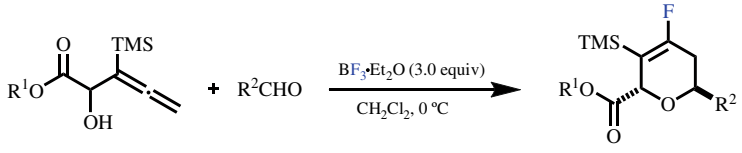
Under continuous flow conditions an azomethine ylide precursor reacts with 12 electron-deficient alkenes to give the corresponding pyrrolidines. The most reactive and therefore hazardous dipolarophiles give the best yields.



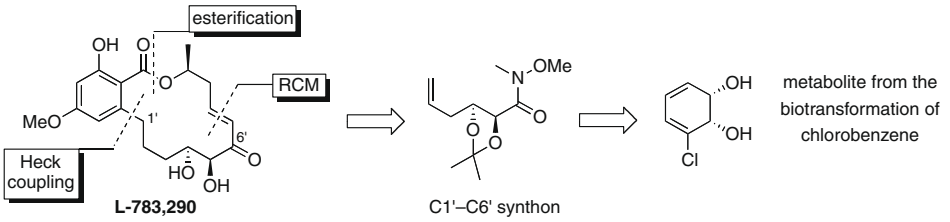


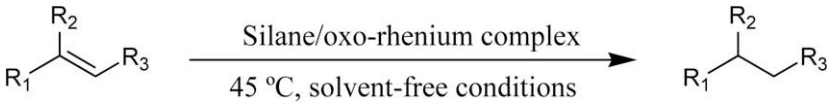


3-Halomethyl-1,2-oxazine-*N*-oxides (halogen = Cl, Br, I) are prepared and undergo reactions typical of cyclic six-membered nitronates.

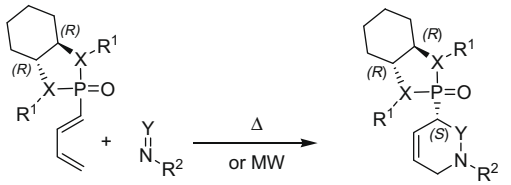


2,6-*trans* dihydropyrans
up to 94:6 dr



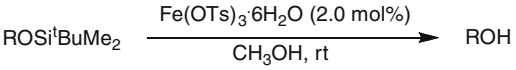


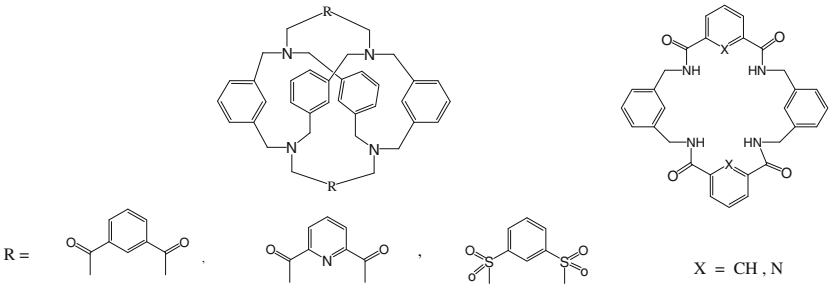
The system silane/oxo-rhenium complexes proved to be very efficient for the reduction of mono- and disubstituted alkenes.

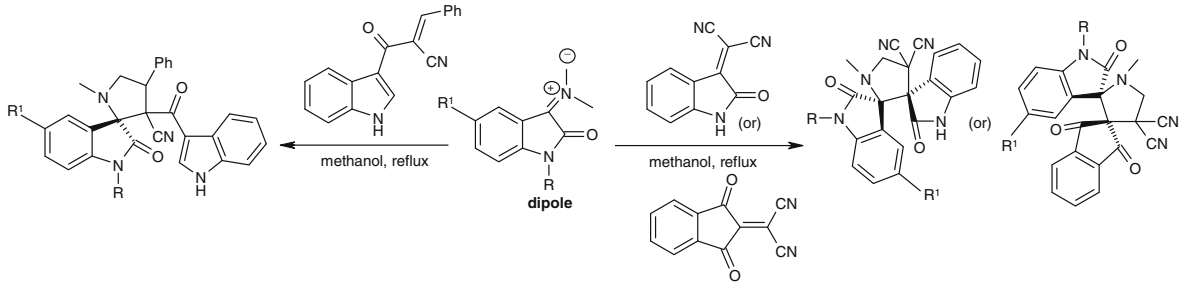


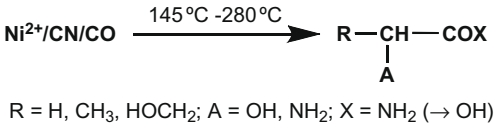
2 diastereoisomers
if X=N, R^1=Bn, Y=O, R^2=2-Tolyl

single diastereoisomer
if X=N, R^1=Bn, Y=NR^2, R^2=CO_2*i*Pr or CO_2*t*Bu



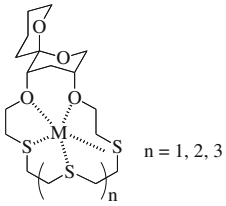




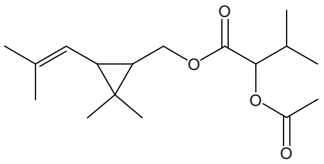


R = H, CH_3, $HOCH_2$; A = OH, NH_2; X = NH_2 (→ OH)

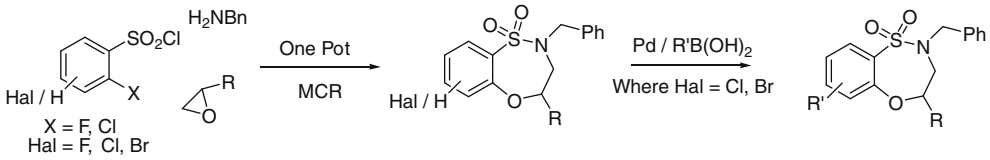
Facile synthesis of α-hydroxy and α-amino acids is observed at temperatures from 145 to 280 °C with catalytic Ni^{2+}, with cyano ligands as source for C and N, and with CO as a reductant and as a source for C. Implications for the problem of the origin of life are discussed.

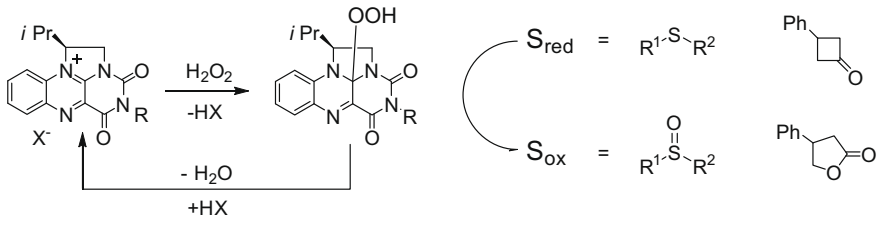


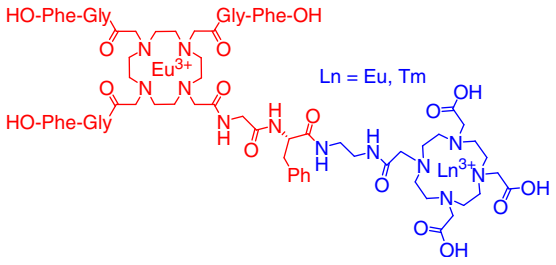
The binding ability of three spiroacetal thiacrown ethers with Li^+, Na^+, K^+, Cs^+, Co^{2+}, Cd^{2+}, Ag^+ and Pb^{2+} is reported.

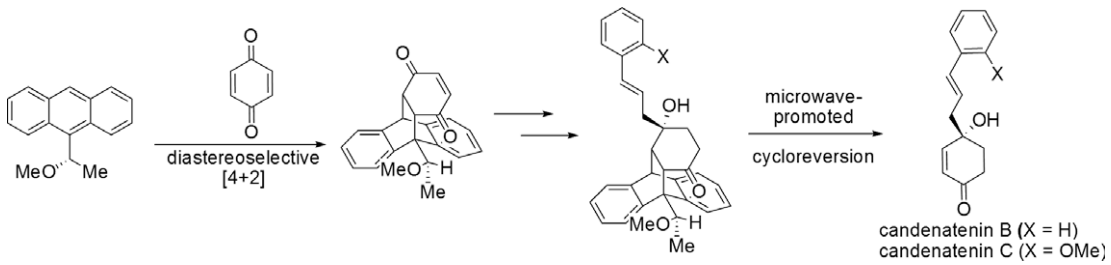


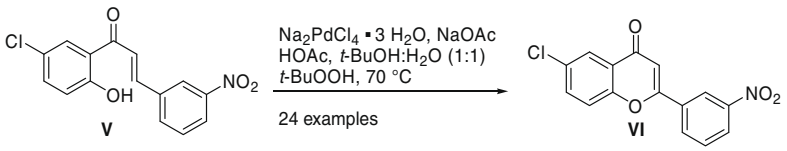
The sex pheromone of the citrophilus mealybug is identified from the headspace volatiles of virgin females as [2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropyl]methyl 2-acetoxy-3-methylbutanoate based on GC–MS analysis, derivatization procedures and field-trapping experiments with the synthetic compound.

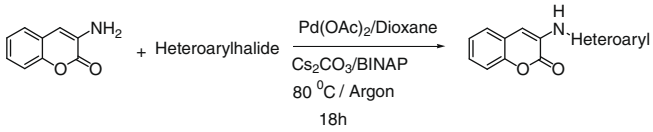


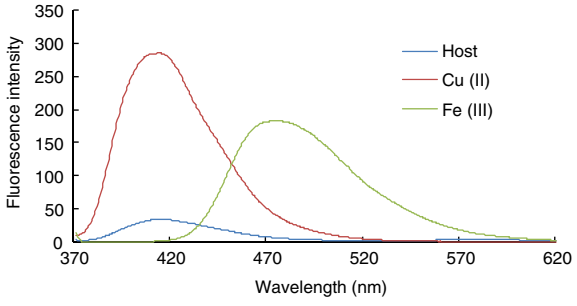


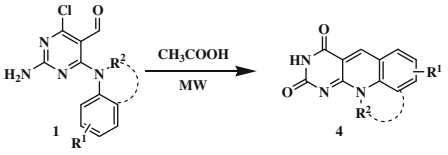


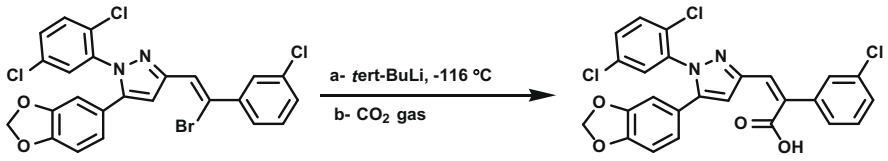




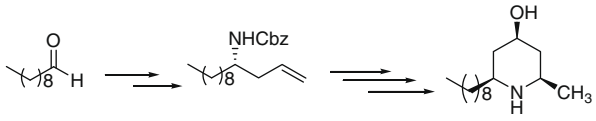




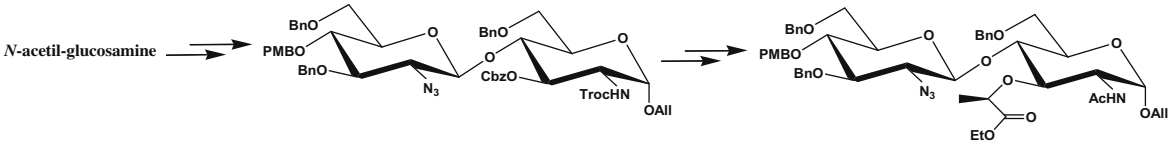


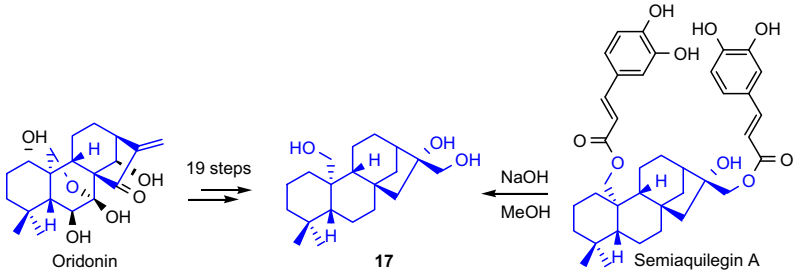


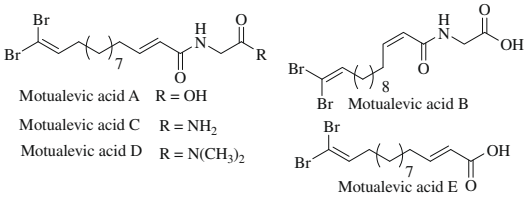
Attempts to prepare JNJ 26273364, a highly functionalized pyrazole-based CCK_1 receptor antagonist, using a carboxylation reaction led to a series of unexpected results. This work demonstrated the unique reactivity and stability of the highly functionalized *Z*-alkene functionality present around the pyrazole.

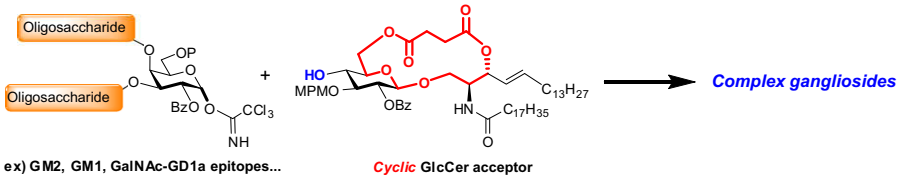


The stereoselective synthesis of an alkaloid (+)-241D and its C-4 epimer is described.









*Corresponding author
Supplementary data available via ScienceDirect

COVER

A modular synthesis of the resorcylic acid lactone L-783,290 is reported. A readily available metabolite from the whole-cell biotransformation of chlorobenzene is used to prepare a C1′–C6′ synthon that is incorporated into the target macrolide using Heck coupling and ring-closing metathesis (RCM) processes.
Tetrahedron Letters **2010**, 51, 1044–1047.

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