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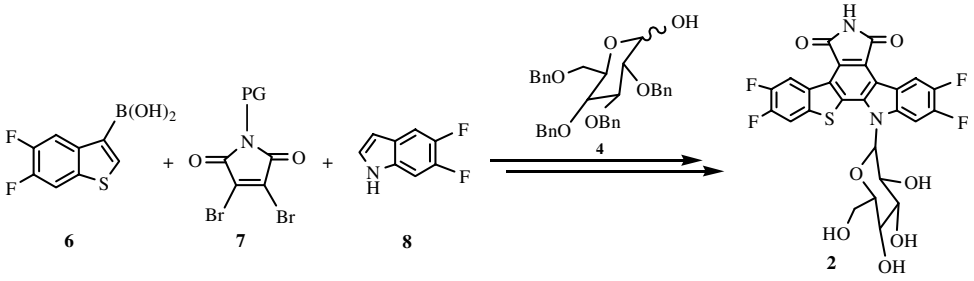
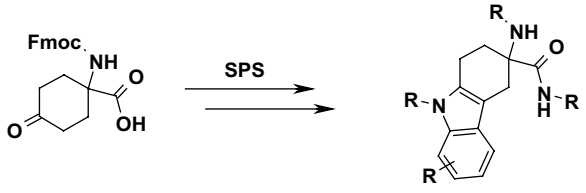
Tetrahedron Letters

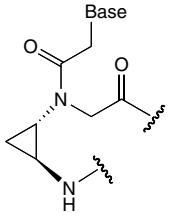
Tetrahedron Letters Vol. 46, No. 6, 2005

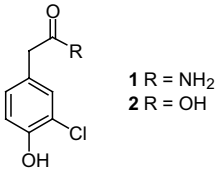
Contents

COMMUNICATIONS

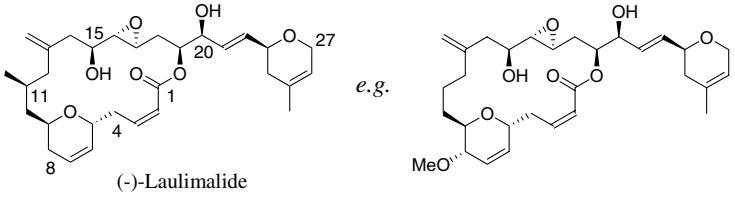


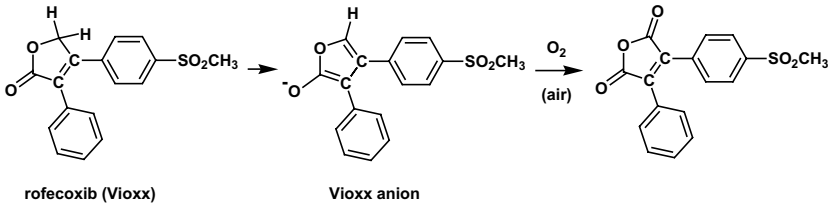


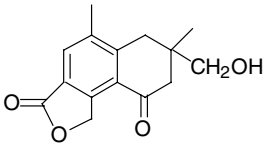


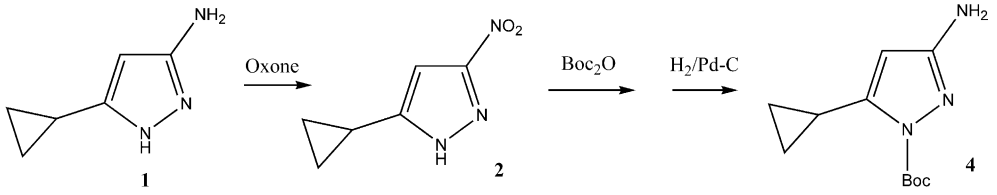


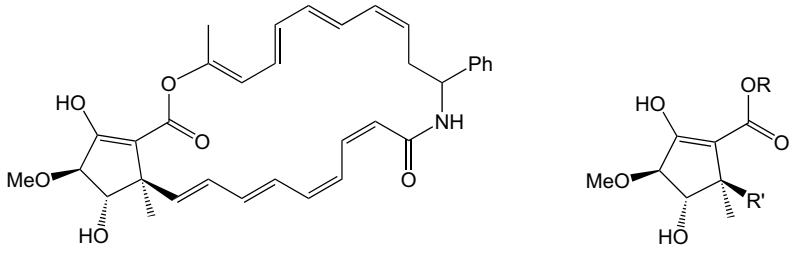
Chemical investigations of the fermentation broth from *Xylaria* sp. have afforded the new natural product 3-chloro-4-hydroxyphenylacetamide **1** and the previously reported fungal metabolite 3-chloro-4-hydroxyphenylacetic acid **2**. This letter reports the isolation and full spectroscopic characterisation of compounds **1** and **2**. The crystal structure and one-pot synthesis of 3-chloro-4-hydroxyphenylacetamide are also reported.

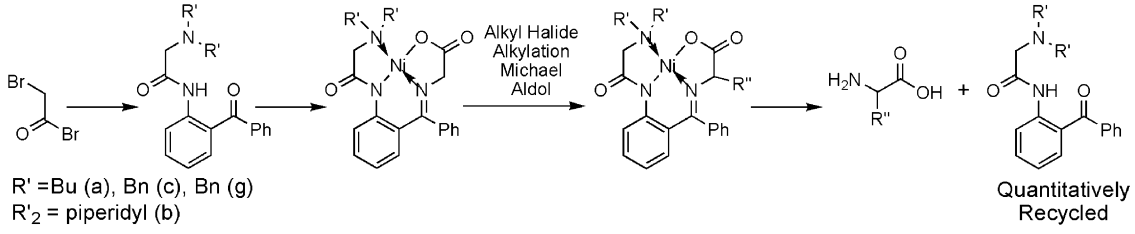


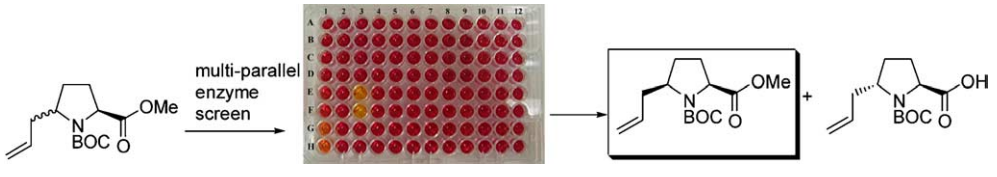


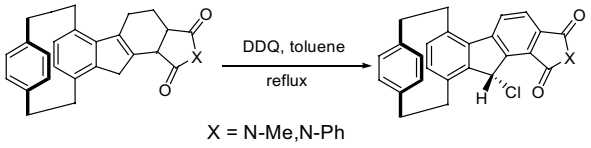


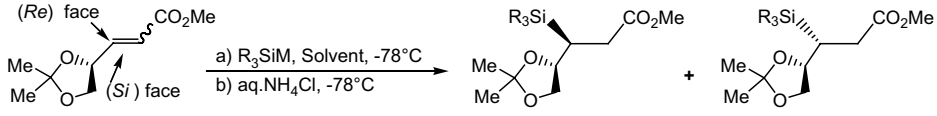




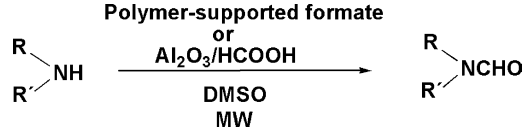




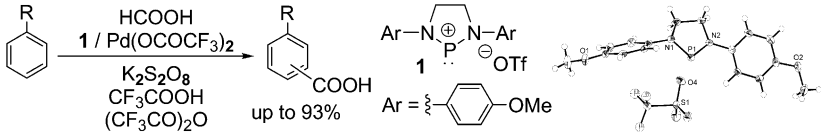




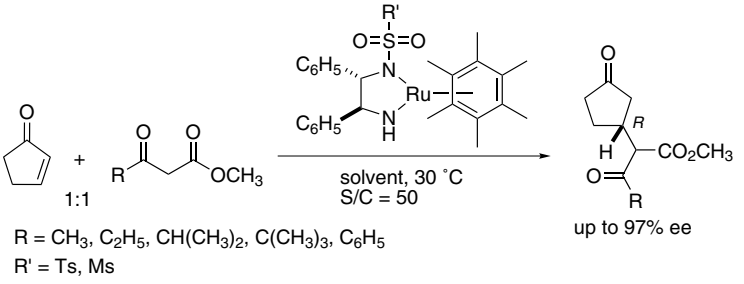
Silyllithiums add to *Z*-γ-alkoxy-α,β-unsaturated esters to produce almost exclusively the *syn*-adducts when the reaction is carried out in THF. It takes another course when carried out in the presence of HMPA and leads to the *anti*-adducts.

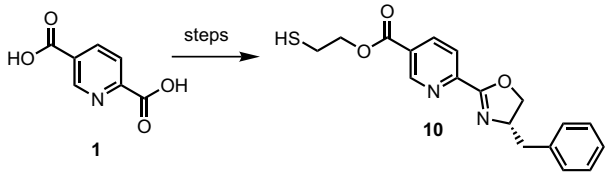


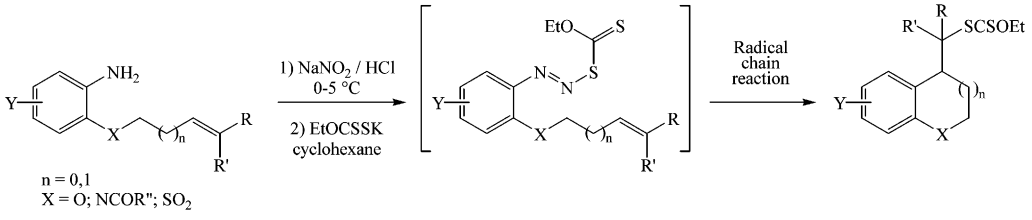
A rapid and easy route to formamides by microwave assisted *N*-formylation of primary and secondary amines using an insoluble polymer or an inorganic solid-supported formate is described.

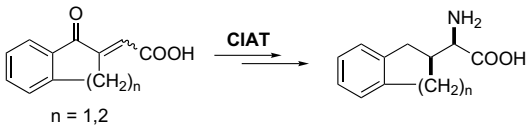


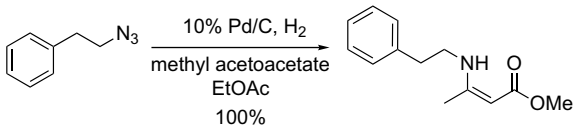
Addition of a phosphenium dramatically improved the reaction yields in the carboxylation of arenes by formic acid catalyzed by Pd(II). Control experiments revealed that the majority of the phosphenium triflate was converted to a mixed anhydride of phosphonic acid and formic acid (**7**), which however did not substitute for the phosphenium to improve the reaction yield.



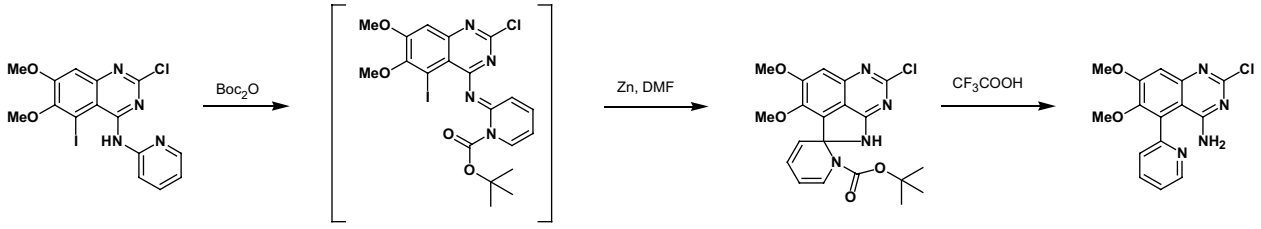




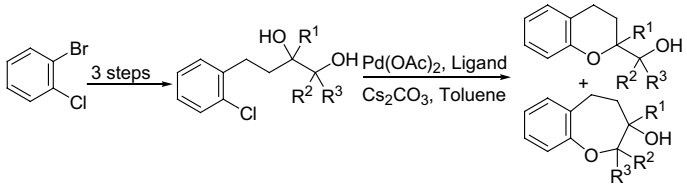




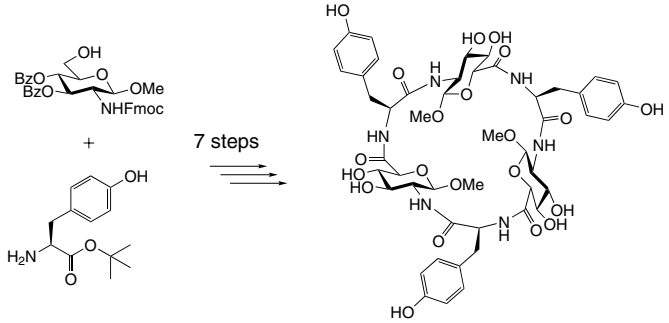
An easy access to vinylogous carbamates is reported.

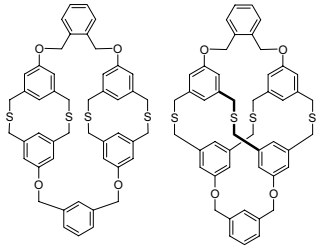


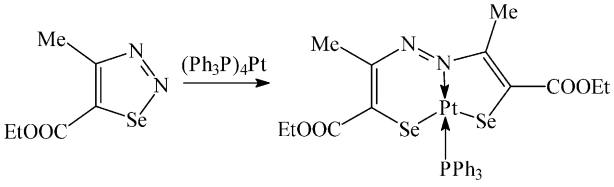
A novel method for the introduction of acyl and pyridyl groups into a sterically congested aromatic position is described.



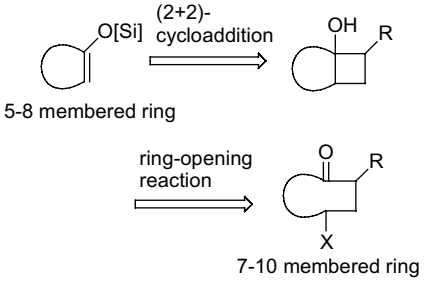
An enantioselective synthesis of substituted 2-methyl chromans was accomplished in four steps using four sequential Pd-catalyzed reactions. A study in the key palladium-catalyzed regioselective aryl ether ring formation of two different substrates was also carried out.

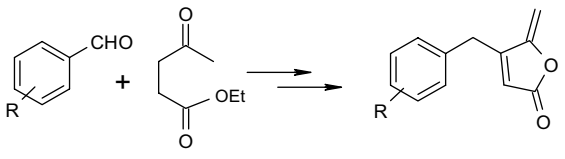




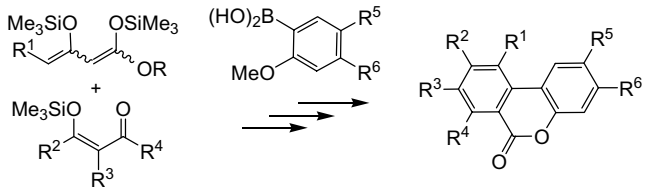


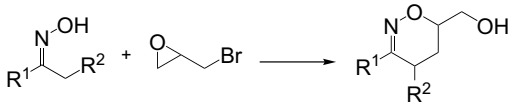
The reaction of 4-methyl-5-ethoxycarbonyl-1,2,3-selenadiazole with $(PPh_3)_4Pt$ leads to the formation of a new platinum-containing heterocyclic system. It was found that the selenoplatinum complex is a selective catalyst for the hydrosilylation of terminal alkynes to yield β-(*Z*)- and β-(*E*)-silylethylenes.

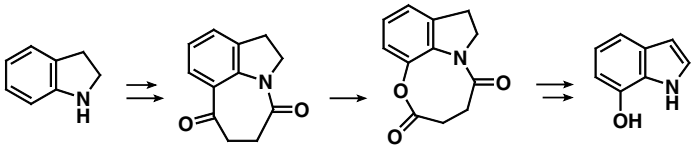


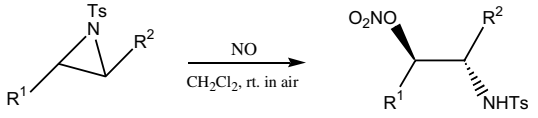


A two-step synthesis of novel 4-(substituted)benzyl/naphthalenylmethyl-5-methylene-2(5*H*)-furanones starting from the corresponding substituted benzaldehydes or naphthaldehydes is described.





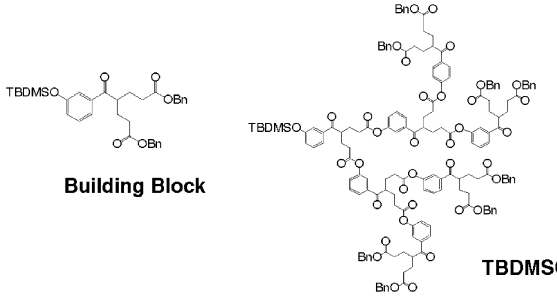


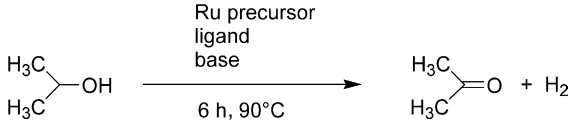


R^1, R^2 = aryl, alkyl

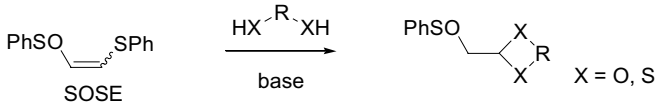
isolated yields of the *anti*-pair up to 97%
d.r. up to 30:1

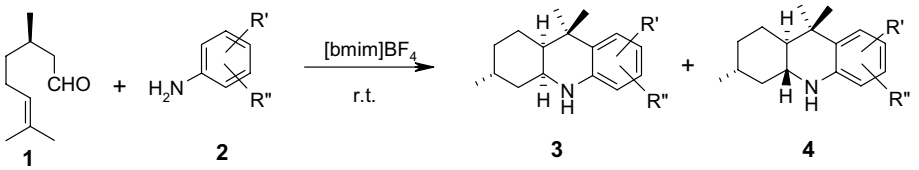
Reaction of *N*-tosyl aziridines with nitric oxide affords the corresponding ring-opened products in regio-, stereoselectivities and excellent yields.

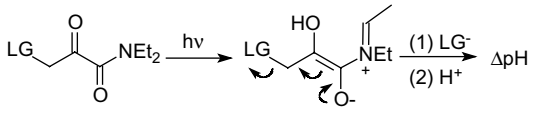




The development of catalysts for the dehydrogenation of *iso*-propanol has been investigated in more detail. At comparably low temperature (90 °C) unprecedented catalyst activity (turnover frequencies up to $155\,h^{-1}$; after 2 h) is obtained with $RuCl_3 \cdot xH_2O$ and 2-di-*tert*-butyl-phosphinyl-1-phenyl-1*H*-pyrrole **4**.







OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

The anion of the weakly acidic COX-2 inhibitor rofecoxib (Vioxx) reacts with molecular oxygen under ambient conditions to form a diarylmaleic anhydride, a possible contributor to low level chronic toxicity in vivo because of its chemical reactivity. *Tetrahedron Letters* **2005**, *46*, 927–929.

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ISSN 0040-4039