ELSEVIER

Tetrahedron Letters

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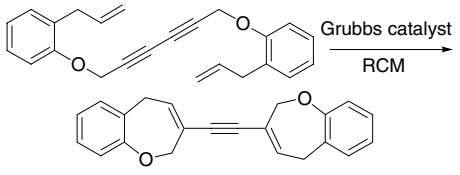
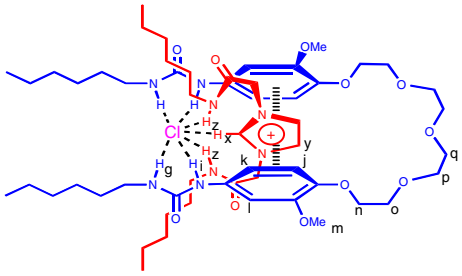
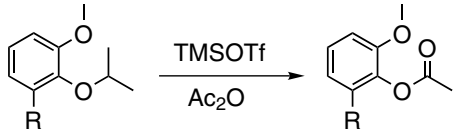
Contents

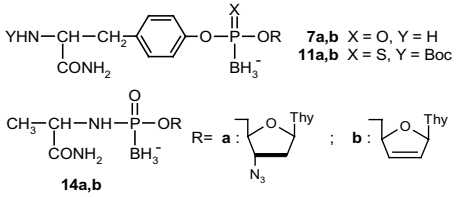
COMMUNICATIONS



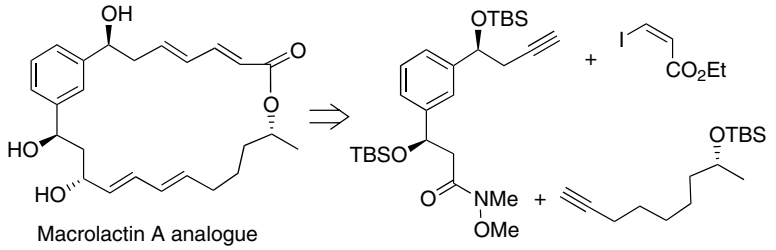
A novel ruthenium-mediated ring-closing metathesis reaction converts molecules containing alkenes and conjugated diynes into dienynes.

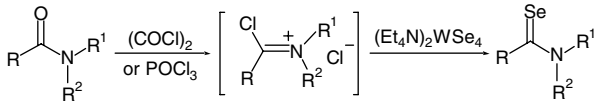




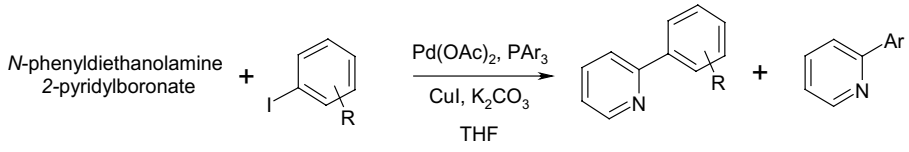


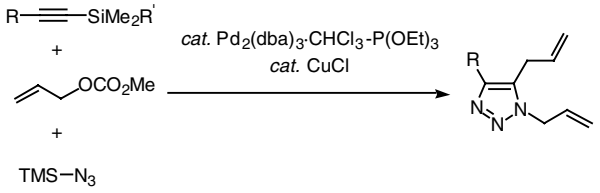
Conjugates of AZT and D4T with the hydroxyl group of tyrosine and the NH-group of alanine, containing boranephosphate, boranephosphorothioate and boranephosphoramidate moieties were obtained.

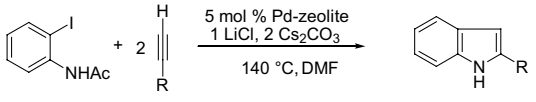


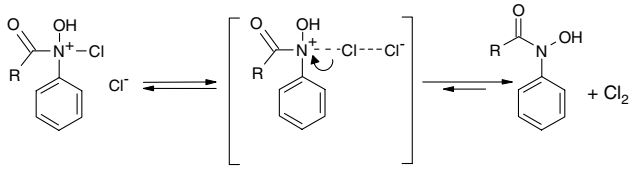


Chloroiminium salts generated in situ from amides and lactams using $(COCl)_2$ or $POCl_3$ react very readily with the new selenium transfer reagent, tetraethylammonium tetraselenotungstate, $(Et_4N)_2WSe_4$, **1**, to afford the corresponding selenoamides and selenolactams in excellent yields under mild reaction conditions.

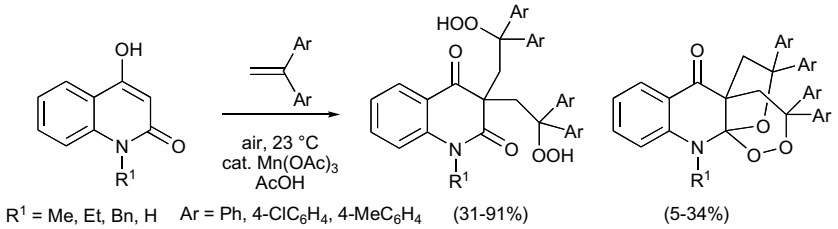


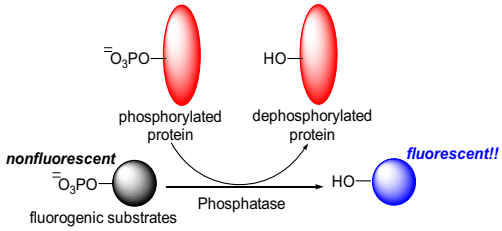




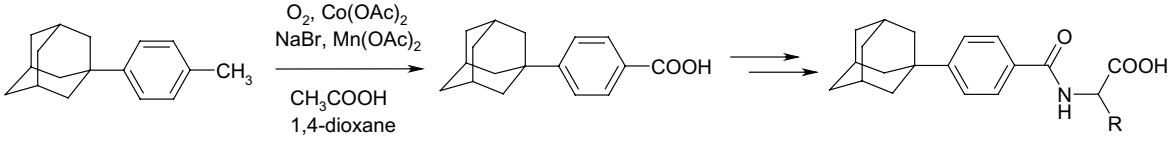


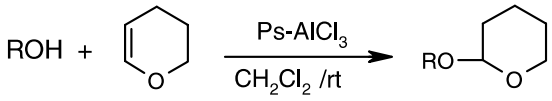
A hydroxamic group can be formed by the heterolytic N–Cl bond cleavage in interactions of acyl halides and nitrosobenzenes in 99.9% acetonitrile.



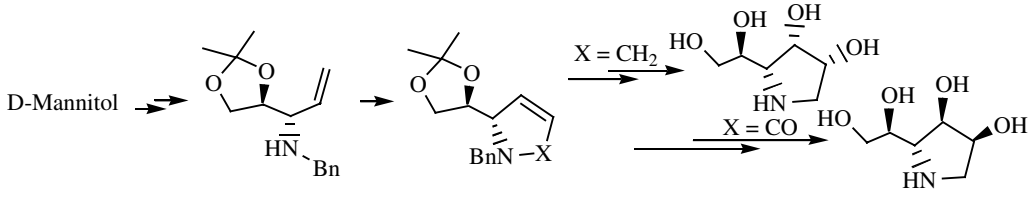


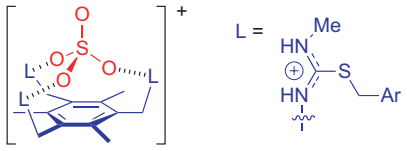
We have successfully designed and synthesized new fluorogenic probes that target different classes of protein phosphatases. The fluorescence profiles of the probes have been studied using 12 different phosphatases, and results showed that, besides alkaline and tyrosine phosphatases, our probes were able to detect serine/threonine as well as acid phosphatases.



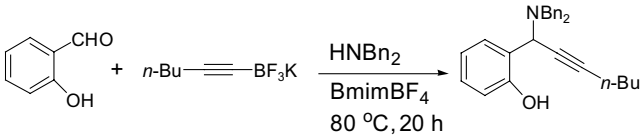


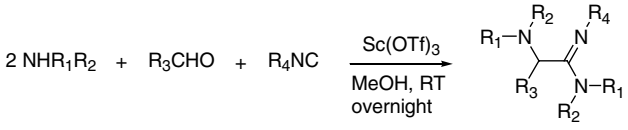
A simple, efficient and highly chemoselective method for tetrahydropyranylation of alcohols and phenols has been developed by their reaction with 3,4-dihydro-2*H*-pyran at room temperature in the presence of a catalytic amount of polystyrene supported $AlCl_3$. The method is also highly selective for monotetrahydropyranylation of symmetrical diols.



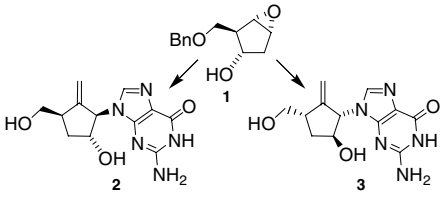


Tripodal cationic receptors having isothiouronium ligands recognize sulfate ion in methanol preferably in a 1:1 binding mode, while they show complex behavior toward phosphate ion.

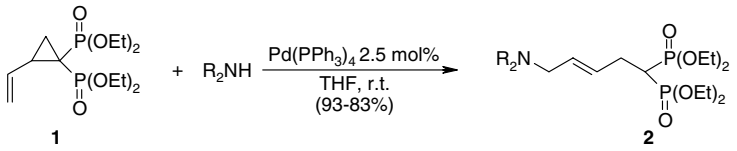




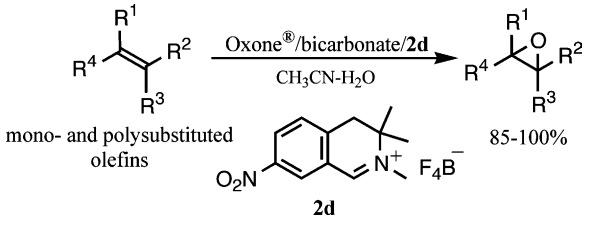
Scandium(III) triflate was found to be an efficient catalyst for the formation of α-amino amidines. The corresponding products were easily converted to hydantoin imides and imidopyrazine derivatives.

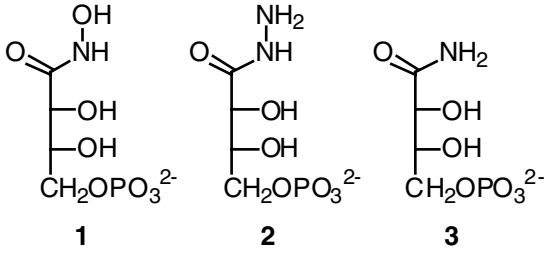


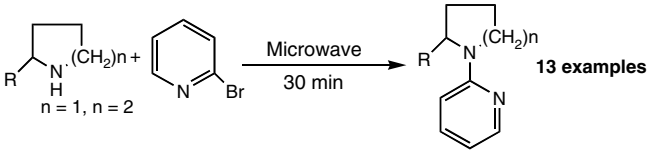
A novel synthetic approach was used to prepare a pair of enantiomeric 3′-deoxy carbocyclic nucleosides (**2** and **3**) from the chiral epoxide **1.**

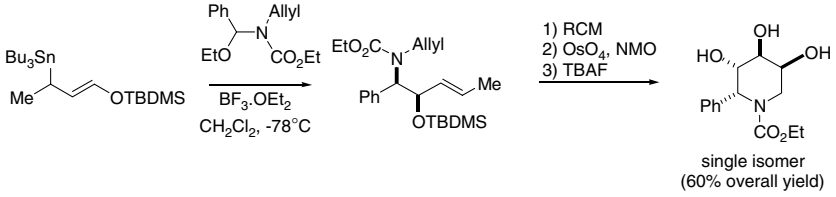


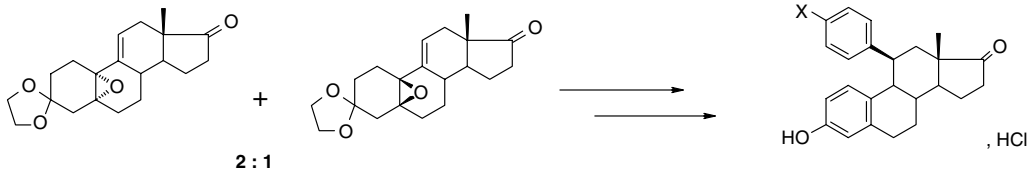
The title compound **2** is obtained regio- and stereoselectively via the palladium-catalyzed ring opening of **1** with secondary amines.

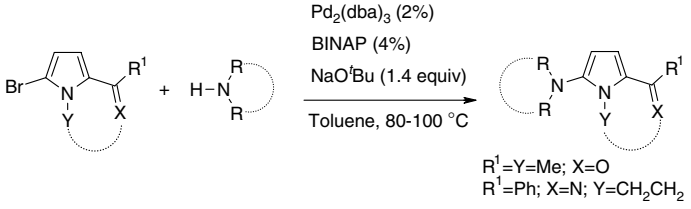


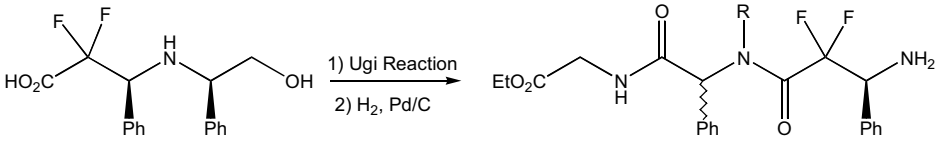


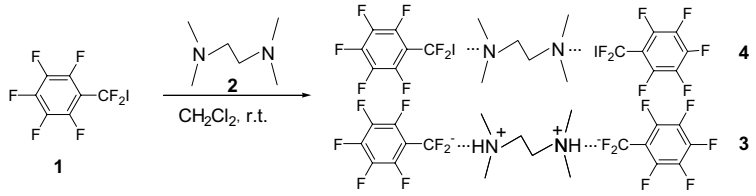


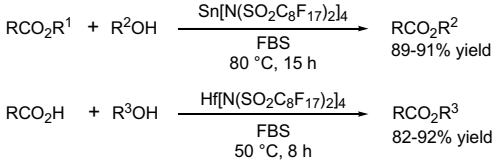




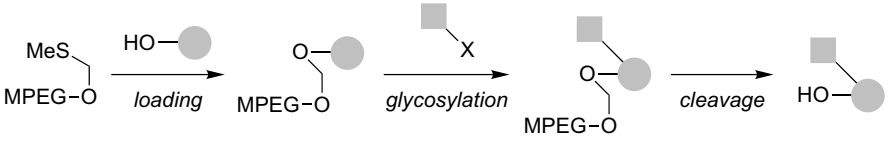




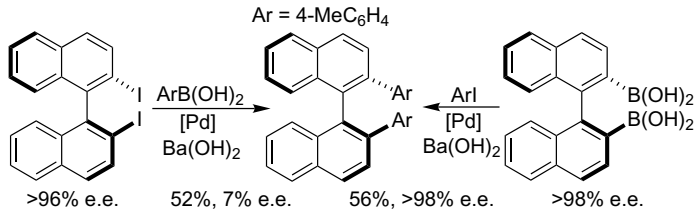




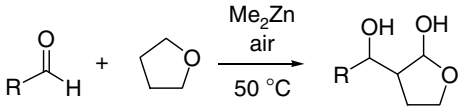
Recyclable Lewis acid catalyst with mild operating conditions.

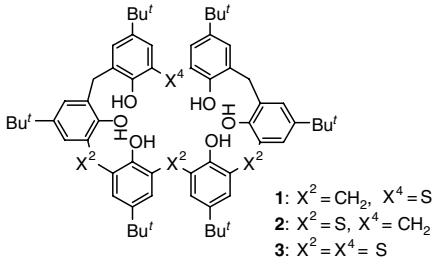


Disaccharides are efficiently constructed on this platform via CH_2 linker. The preparation, loading, glycosylation, and cleavage are reported.

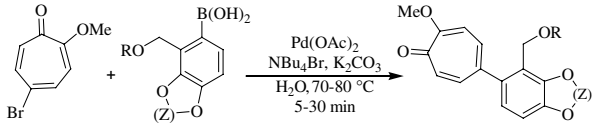


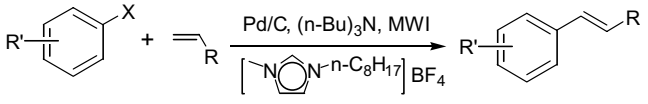
The first preparation of enantiomerically pure 1,1′-binaphthyl-2,2′-diboronic acid is reported. Its Suzuki arylation opens a synthetic approach to enantiomerically pure 2,2′-diaryl derivatives, including functional examples.

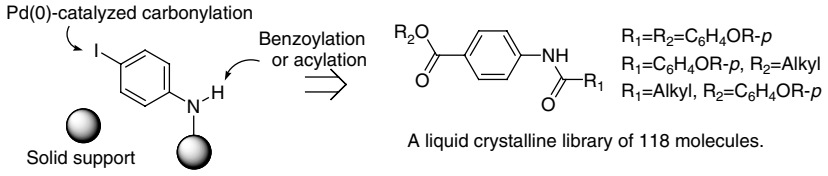


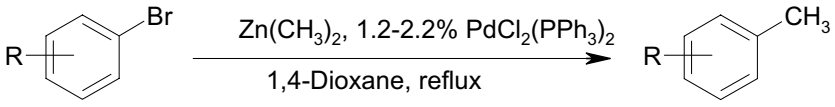


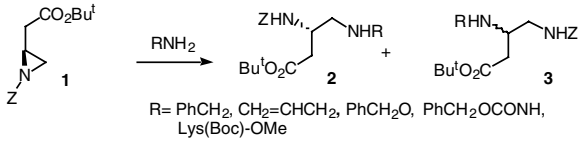
Mono-, tri-, and tetra-thiacalix[6]arene were obtained by acid-catalyzed condensation of the corresponding sulfur or methylene bridged tetramer and dimer derivatives of *p-tert*-butylphenol.

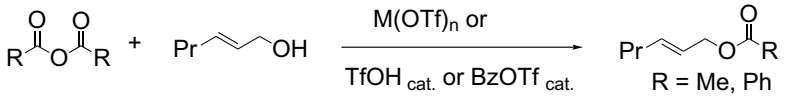


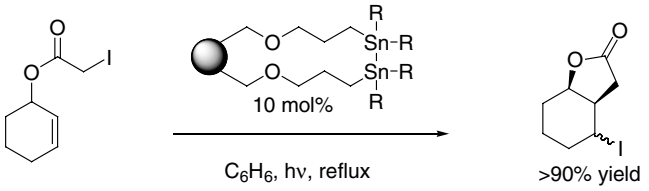


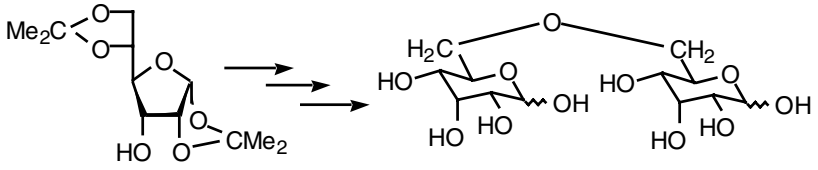


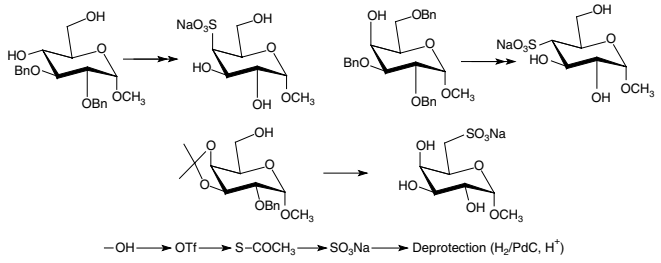


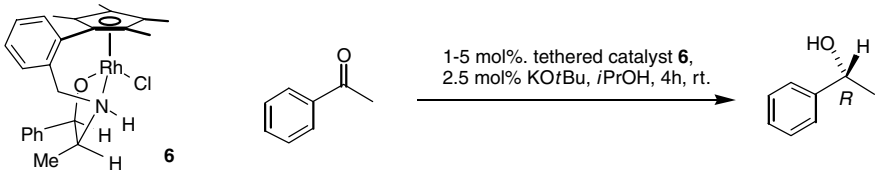




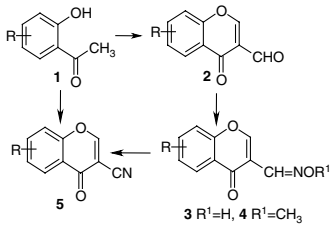




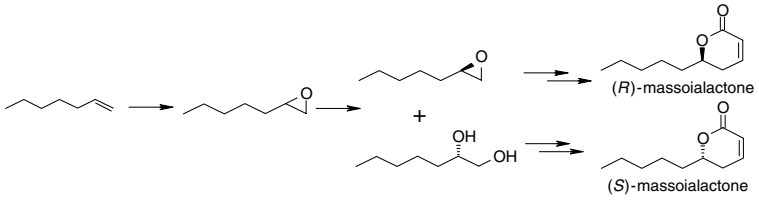


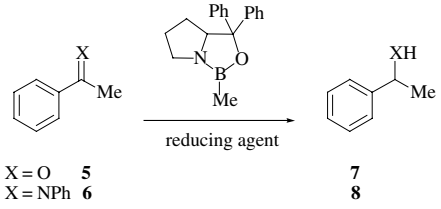


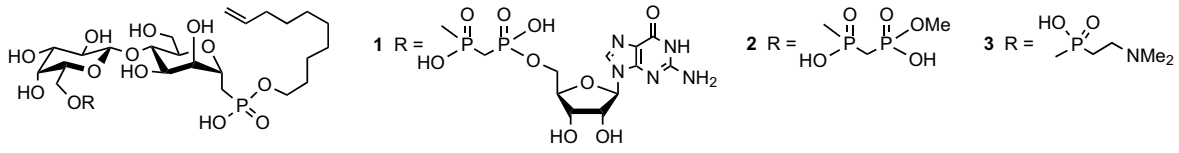
Catalyst **6** is highly effective for the asymmetric catalysis of transfer hydrogenation of acetophenone using isopropanol.

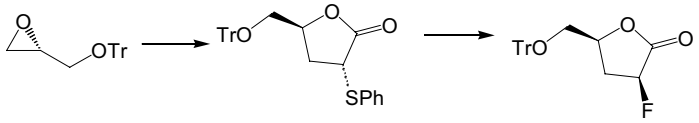


A simple one-pot synthesis of 3-cyano-4-benzopyrones directly from 2-hydroxyacetophenones using mild conditions is reported herein.

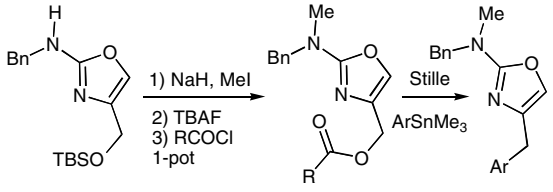


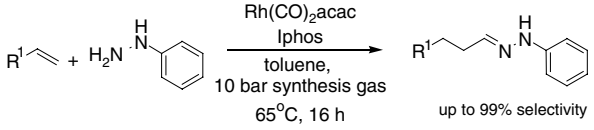




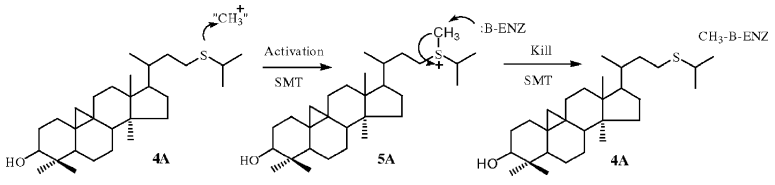


Alkylation of (*S*)-tritylglycidol with the dianion of phenylthioacetic acid gave a lactone, which could be transformed into an advanced precursor of the nucleoside β-FddA.

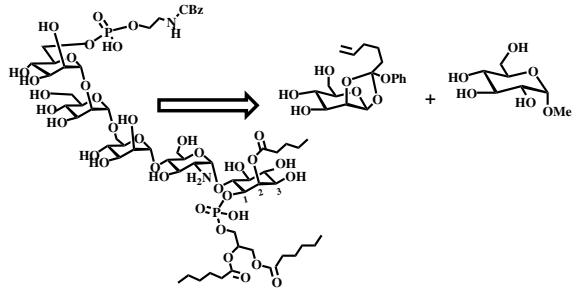


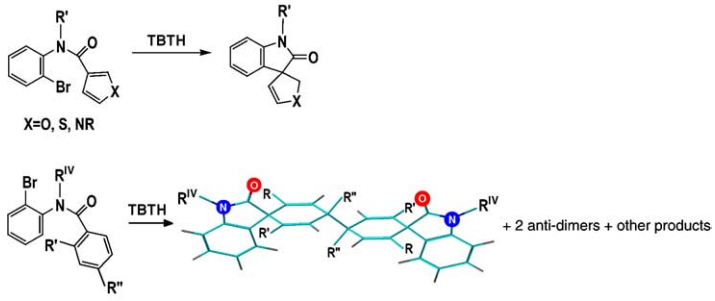


For the first time a direct synthesis of hydrazones from olefins, synthesis gas and hydrazines is described. In addition, this new methodology has been successfully combined with the classical Fischer indole synthesis. Highly regio- and chemoselective reactions were obtained in the presence of [$Rh(CO)_2$acac]/Iphos as catalyst.



24-Thiacycloartanol prepared from the native substrate of the *Glycine max* sterol methyltransferase was found to be a mechanism-based inactivator of the enzyme exhibiting an apparent K_i value of 2μM and k_{inact} of 0.3min^{-1}.





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*Corresponding author
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