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Tetrahedron Letters

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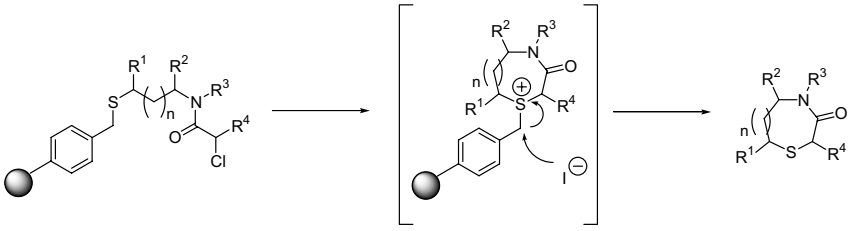
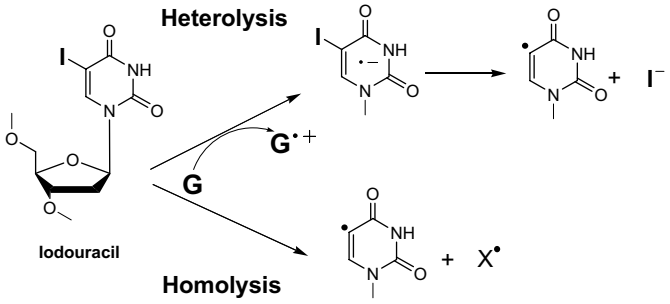
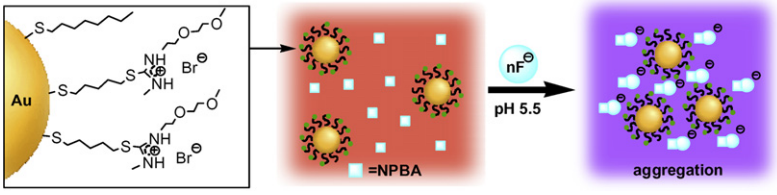
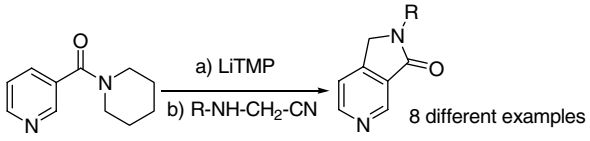
Contents

COMMUNICATIONS

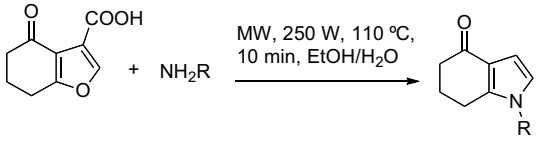


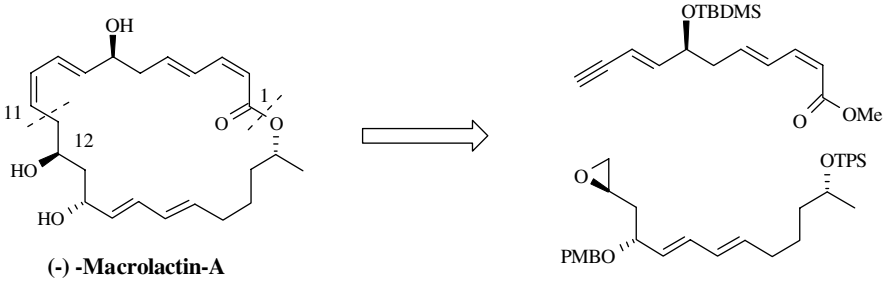


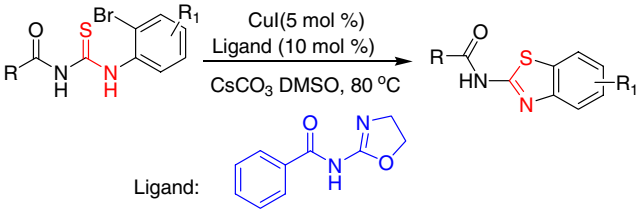


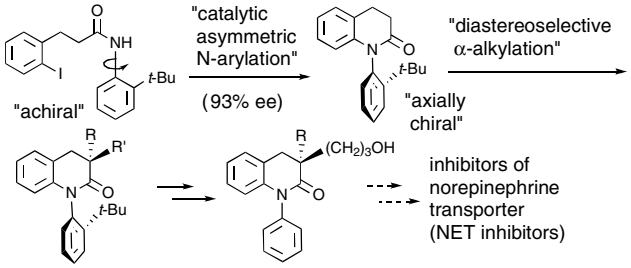


New 2,3-dihydropyrrolopyridinones were prepared by trapping lithiated pyridine carboxamides with highly reactive formimines. This method allowed a wide range of N-functionalised compounds including ethers, acetals or ester moieties.

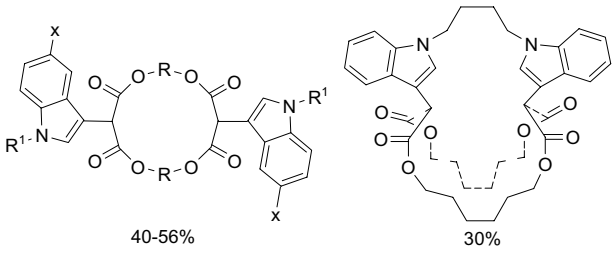


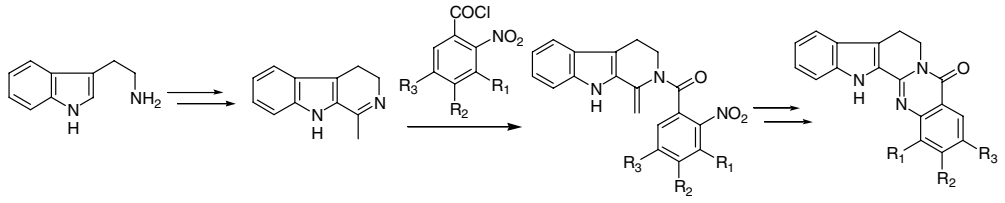


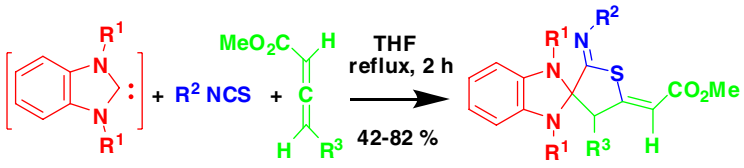




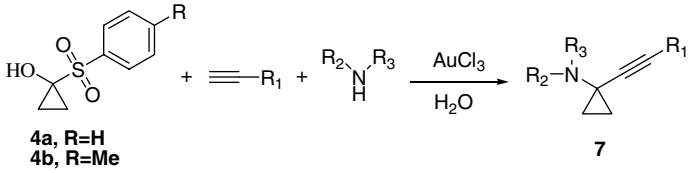
A wide variety of new macrocyclic diazocarbonyl compounds was synthesized and their rhodium(II) acetate catalyzed carbenoid insertion reaction with substituted indoles afforded regioselectively indol-3-yl macrocyclic di- or tetralactones or indolyl cryptand molecules.





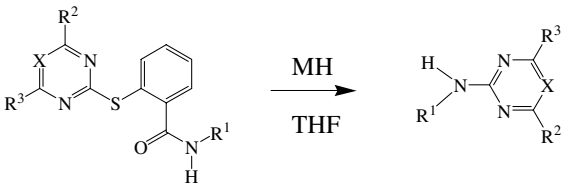


The novel three-component reaction of benzimidazole carbenes with isothiocyanates and allenoates proceeded efficiently in a highly site, regio-, and stereoselective manner to produce predominantly spiro[benzimidazoline-2,3′-tetrahydrothiophene] derivatives. The reaction was proposed to occur via a tandem nucleophilic addition of carbenes to isothiocyanates followed by an unusual [3+2] cycloaddition to the less activated carbon–carbon double bond of allenoates.

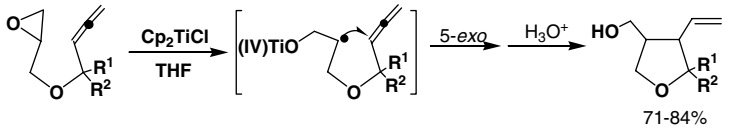


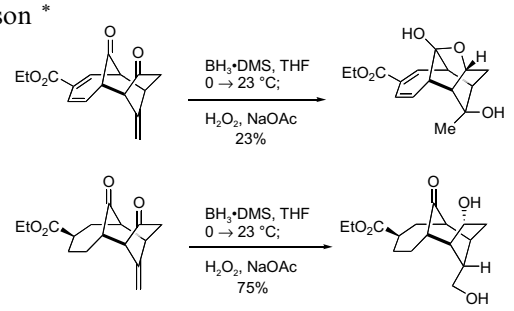
1-(Arylsulfonyl)cyclopropanol **4**, a new cyclopropanone equivalent, can react with terminal acetylenes, and disubstituted amines in water catalyzed by $AuCl_3$, to provide 1-alkynyl cyclopropylamines in moderate yields.

$LiAlH_4$ and $NaBH_4$ were found to mediate the conversion of 2-(pyrimidyl-2-ylsulfanyl)-*N*-arylbenzamides and 2-(triazinyl-2-ylsulfanyl)-*N*-arylbenzamides into pyrimidyl and triazinyl amines under notably mild conditions via a novel reductive rearrangement mechanism.

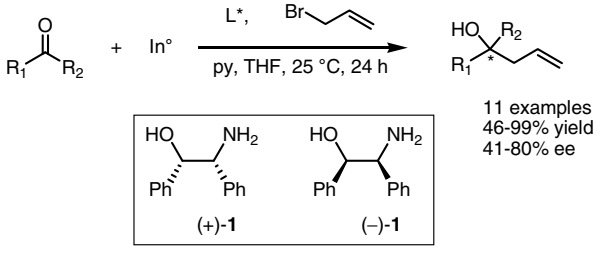


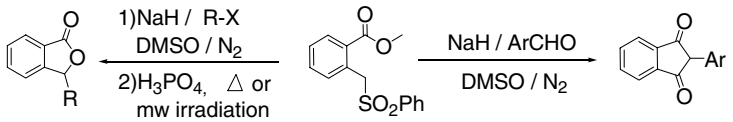
(X= CH, N; R^1= (CH_2)nAryl (n=0, 1); R^2, R^3 = Me, OMe; MH = $LiAlH_4$, $NaBH_4$)

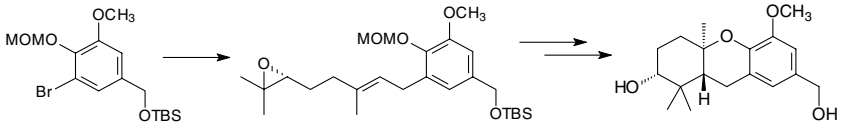




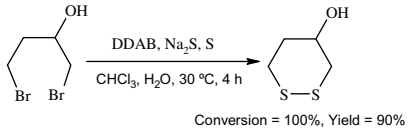
Remote functional groups influence hydroboration of an exocyclic olefin leading to higher than expected levels of 3° alcohol products.



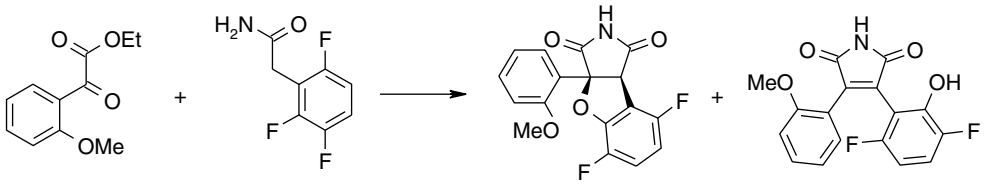




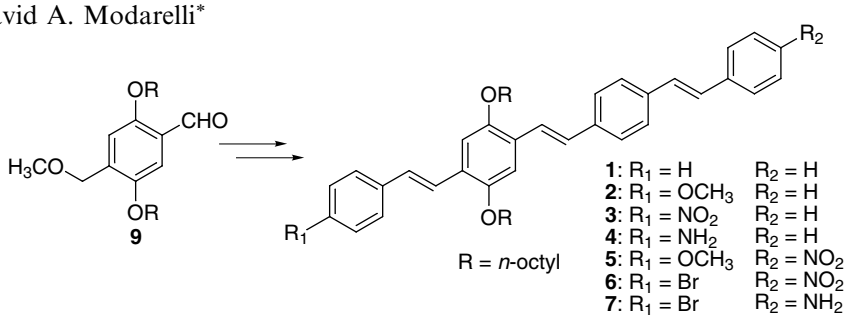
Use of a Shi epoxidation for introduction of chirality in a key epoxide intermediate, together with revised protecting group tactics, has allowed an efficient synthesis of the hexahydroxanthene subunit common to the natural schweinfurthin F and the synthetic analogue 3-deoxyschweinfurthin B.

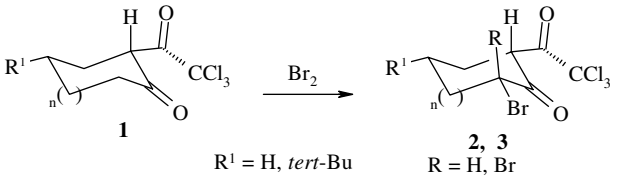


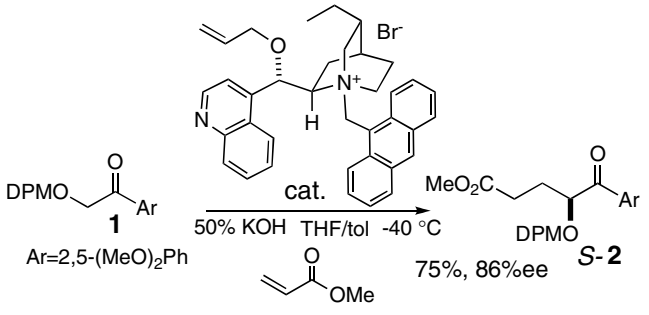
A convenient, practical and general method for the syntheses of symmetrical and unsymmetrical cyclic disulfides based on the reaction of sulfur with sodium sulfide and dibromoalkanes in the presence of didecyldimethylammonium bromide (DDAB) as a phase transfer catalyst is described.

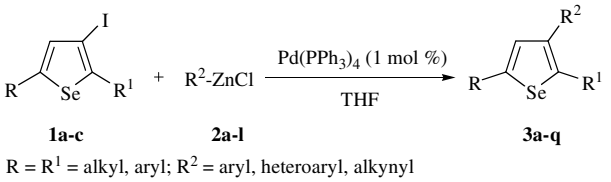


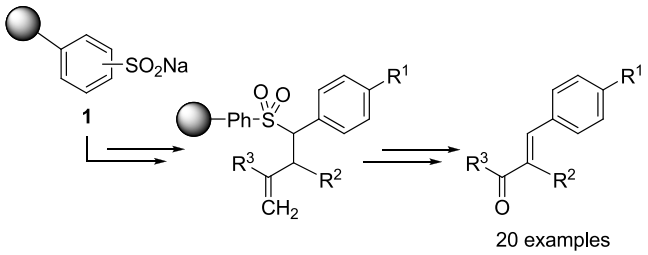
The reaction of a 2-methoxyarylglyoxalate with a 2,3,6-trifluorophenylacetamide yielded a novel 2-hydroxyaryl substituted bisarylmaleimide.

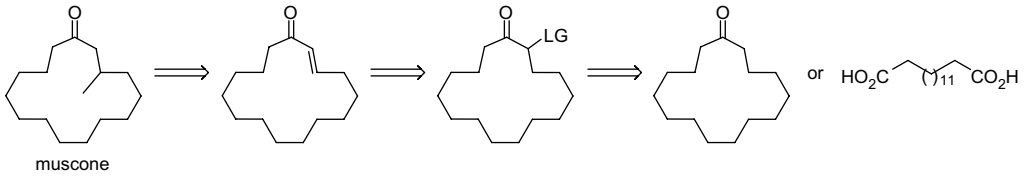


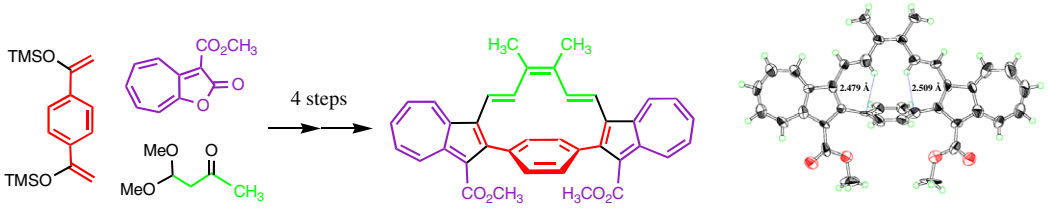


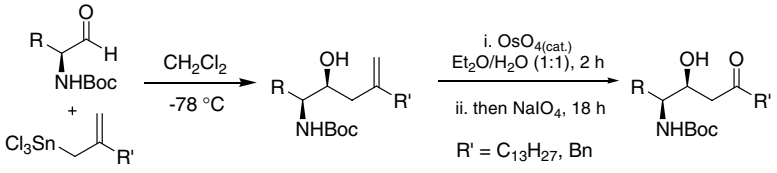


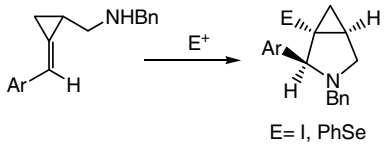


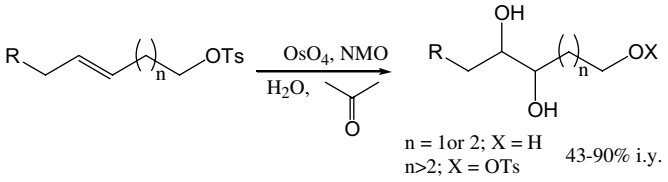


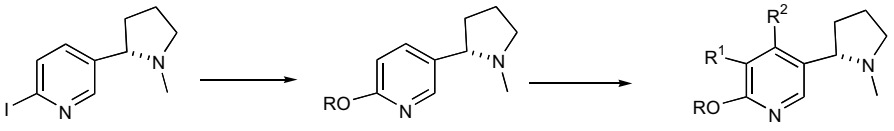












*Corresponding author
Supplementary data available via ScienceDirect

COVER

Synthetic intermediates for norepinephrine transporter (NET) inhibitors were efficiently prepared by using our atropisomeric lactam chemistry (catalytic enantioselective intramolecular N-arylation followed by diastereoselective α-alkylation of the resulting atropisomeric lactam) as key reactions.
Tetrahedron Letters **2008**, *49*, 471–474.

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