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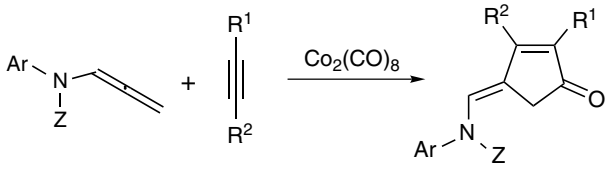
Tetrahedron Letters

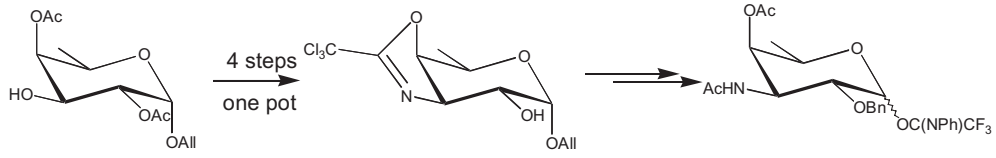
Tetrahedron Letters Vol. 45, No. 23, 2004

# Contents

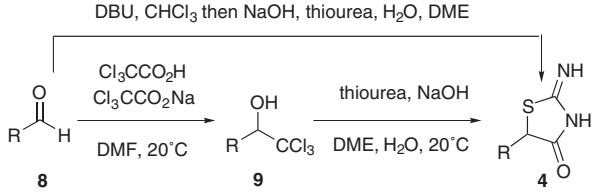
## COMMUNICATIONS



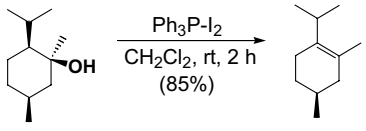


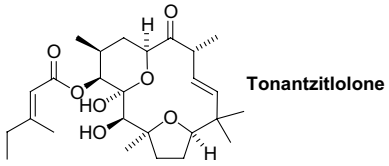


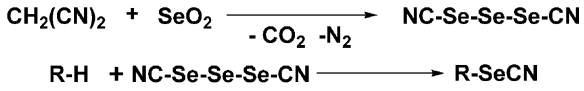


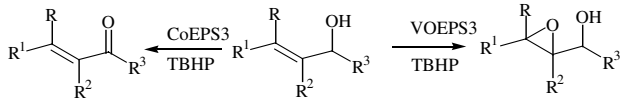

Tertiary alcohols react under mild conditions with triphenylphosphine and iodine to give the most stable alkene in good yields (82–90%).





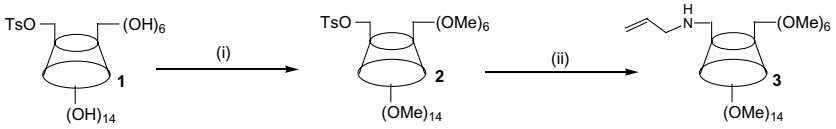





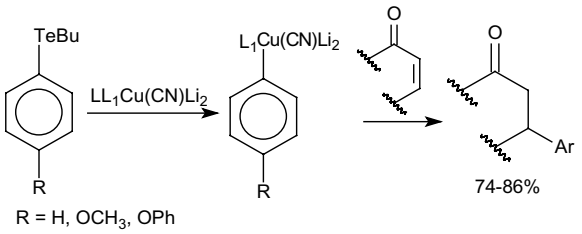




A range of allylic alcohols can be selectively oxidised to either the corresponding epoxide or enone in good yields using catalytic quantities of vanadyl or cobalt(II) alkyl phosphonate modified silicas (VOEPS3 or CoEPS3) and *tert*-butyl hydroperoxide (TBHP).

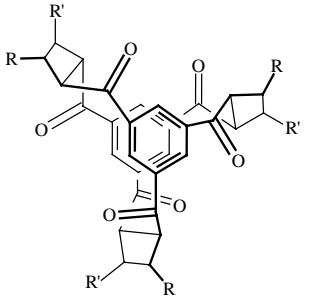




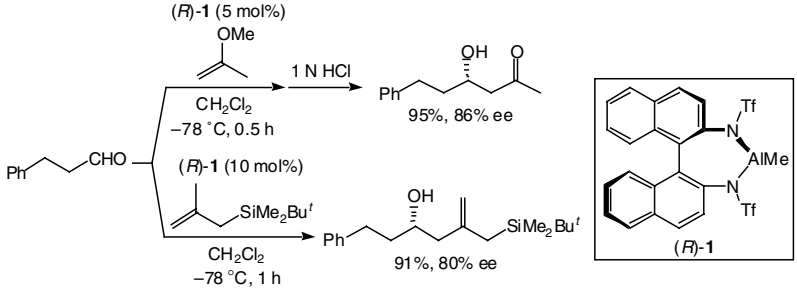

A convenient synthesis of mono(6$^{A}$-*N*-allylamino-6$^{A}$-deoxy)permethylated β-cyclodextrin is presented. Hydrosilylation of the chiral selector with $(EtO)_3SiH$ and reaction of the resultant reactive siloxane with pristine silica gel afforded a facile entry into a structurally well-defined chiral stationary phase applicable for enantioseparation by HPLC.



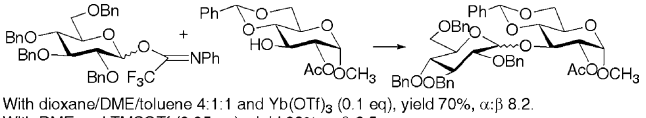


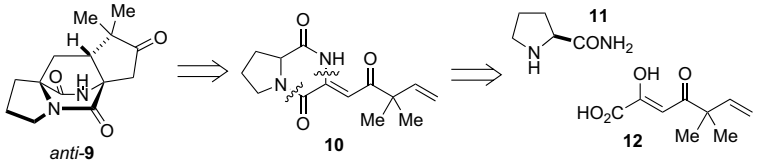


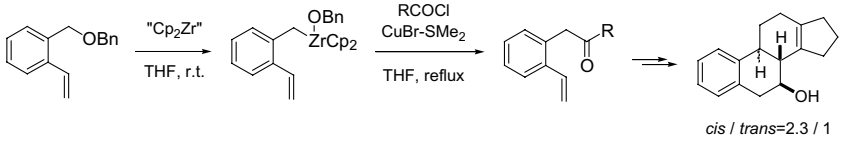


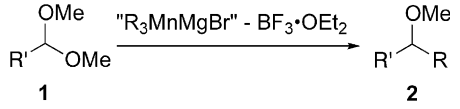

With dioxane/DME/toluene 4:1:1 and Yb(OTf)$_3$ (0.1 eq), yield 70%, α:β 8.2.
With DME and TMSOTf (0.05 eq), yield 83%, α:β 6.5.
With dioxane/DME/toluene 4:1:1 and TMSOTf (0.05 eq), yield 84%, α:β 7.3.





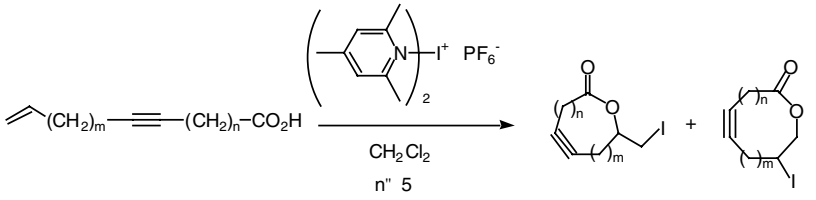



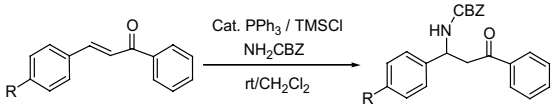


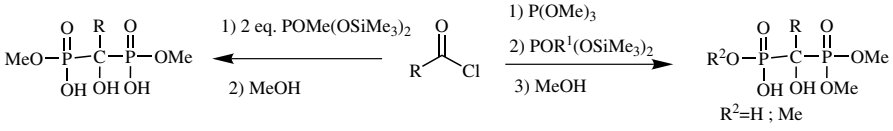

A mixture of '$R_3MnMgBr$' and $BF_3{\cdot}OEt_2$ in ether converted acetals and ketals to alkylation products.



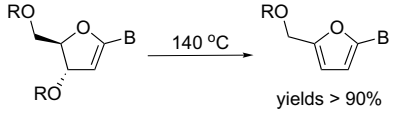






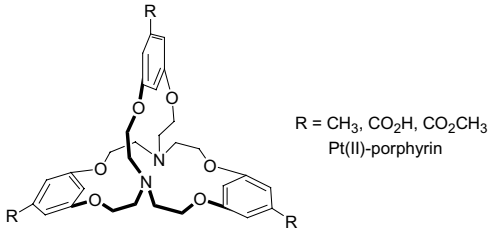





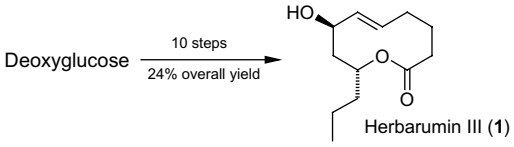




The thermal reaction of several 1′,2′-didehydro-2′-deoxynucleosides affording the corresponding furanyl nucleosides is discussed in terms of reaction kinetics and mechanism.

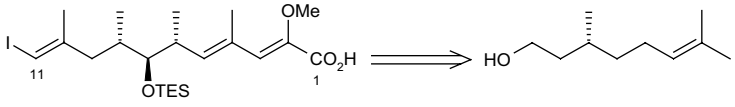




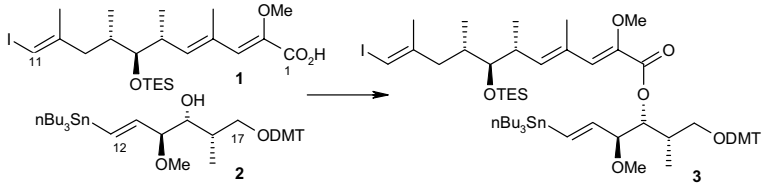

Functionalized azacryptands containing resorcinol derivatives were synthesized by one-pot synthesis in the presence of potassium carbonate under high dilute reaction conditions.



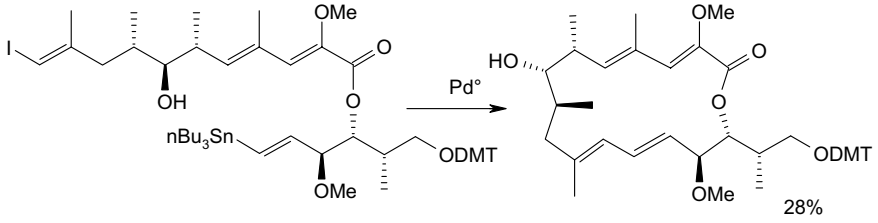


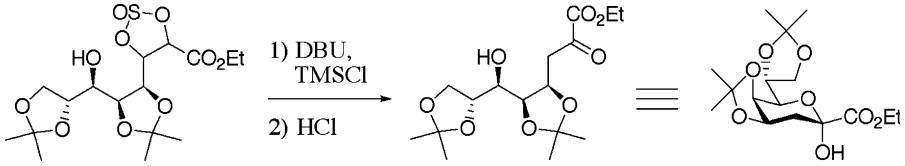





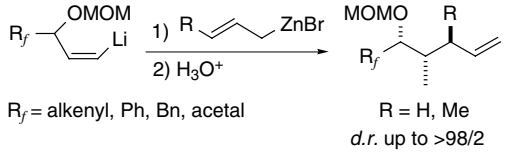


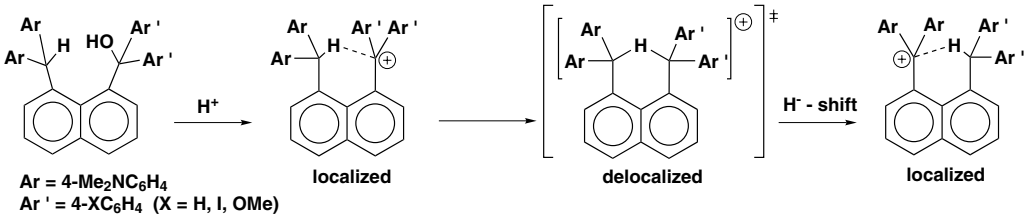



A protected form of KDO was synthesized from 2,3:5,6-di-*O*-isopropylidene-α-D-mannofuranose in five steps (65%).

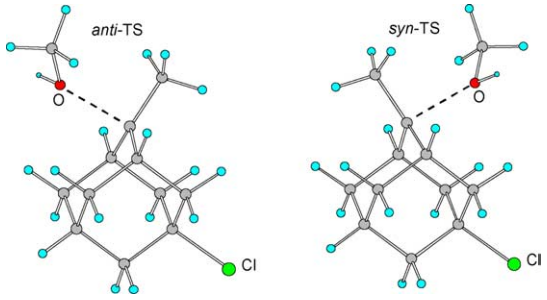


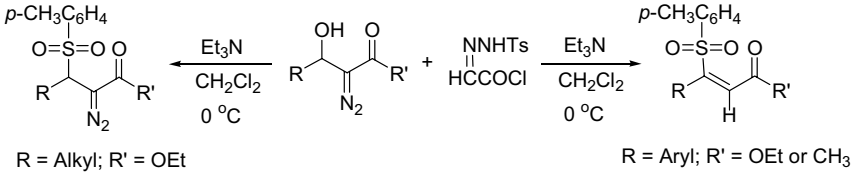




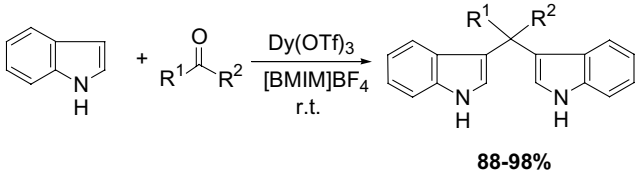





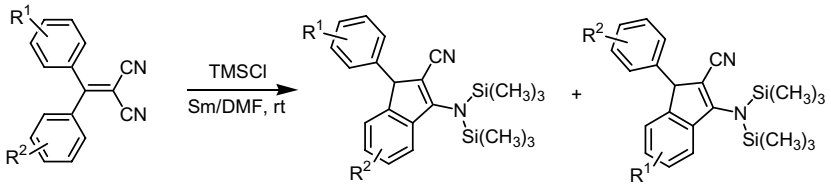







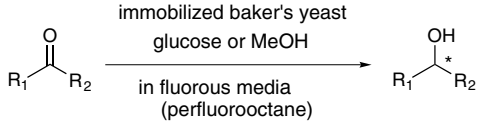



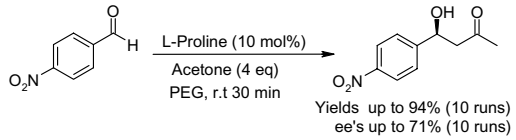



Promoted by samarium metal in DMF and in the presence of TMSCl, 1,1-diaryl-2,2-dicyanoethylenes undergo an unexpected kind of reductive cyclization, thus affording a new approach to the construction of indene core. Simultaneously, disilylation occurred at the amino moiety resulting from the reduction of the cyano group.

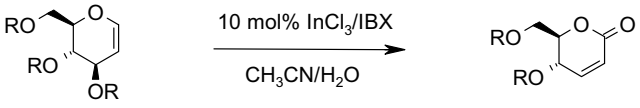







A rapid L-proline catalyzed direct aldol reaction between various aldehydes and acetone was achieved using PEG as the solvent with comparable enantioselectivities and yields to those obtained in other solvents. Recycling the catalyst and solvent (PEG) was possible 10 times without loss of activity.





## OTHER CONTENTS



*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect



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