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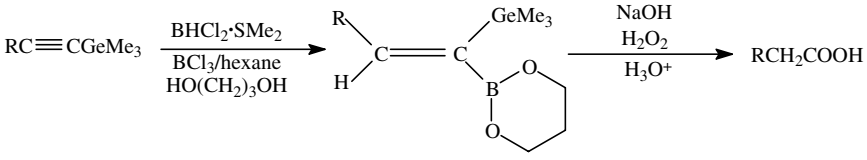
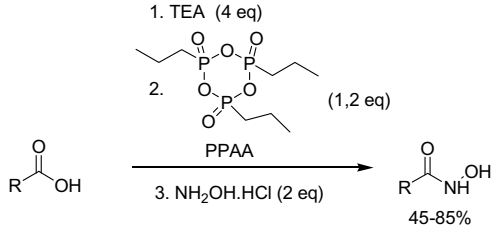
Tetrahedron Letters

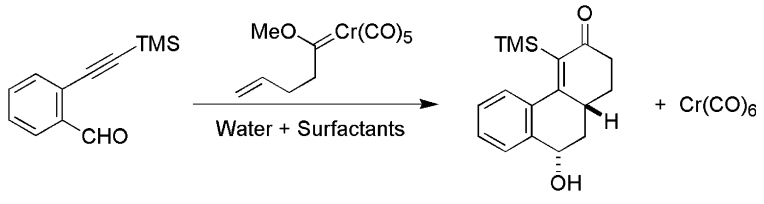
Tetrahedron Letters Vol. 46, No. 31, 2005

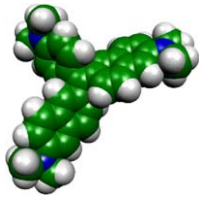
Contents

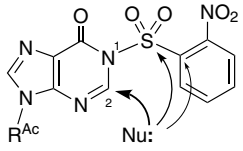
COMMUNICATIONS

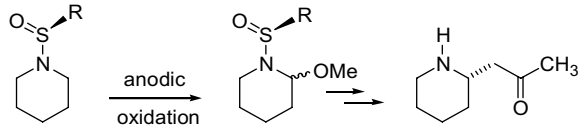


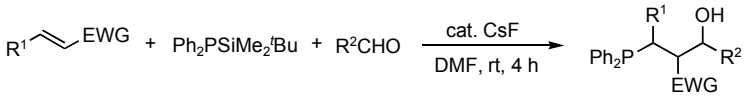


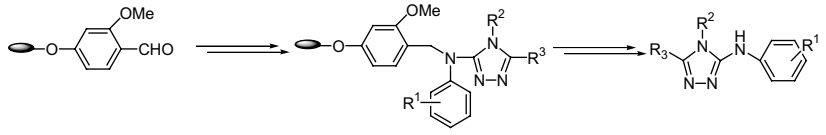


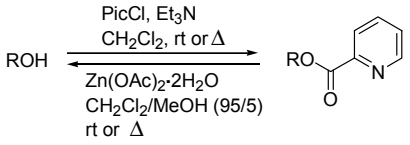


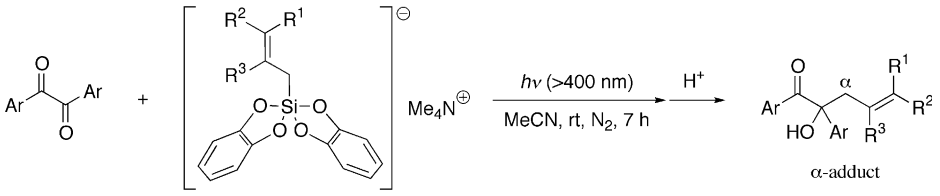


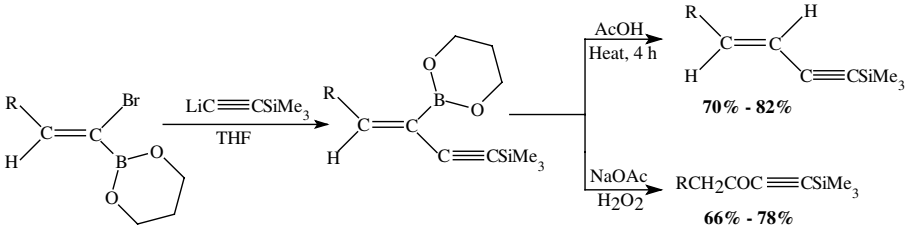


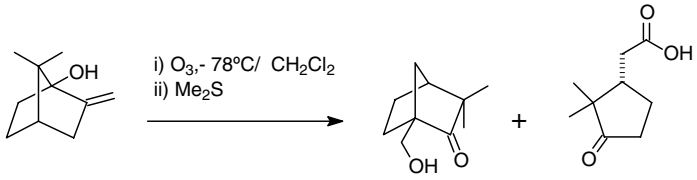


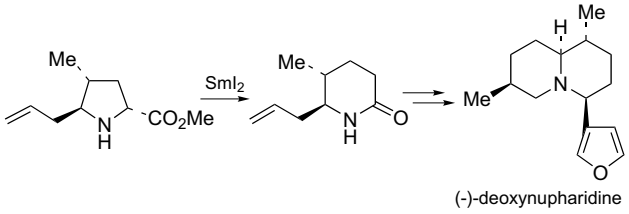




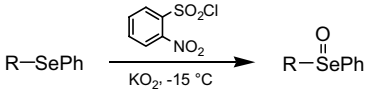


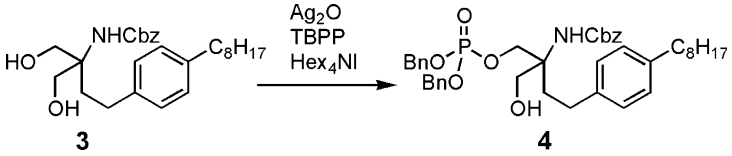






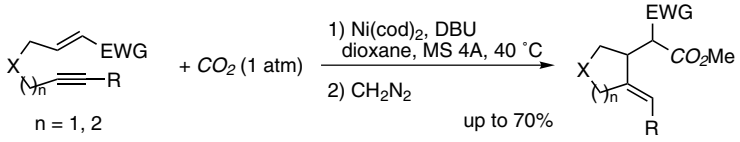
A stereoselective synthetic route to (−)-deoxynupharidine is described that employs reductive carbon–nitrogen bond cleavage of a proline derivative with samarium diiodide and a RCM, as the key steps.

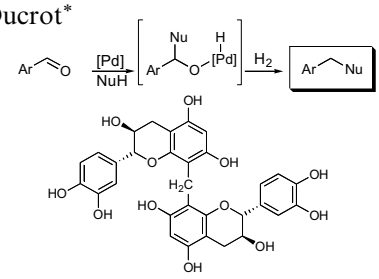




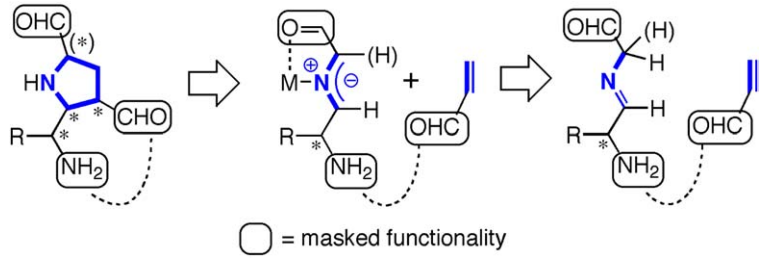
3 4

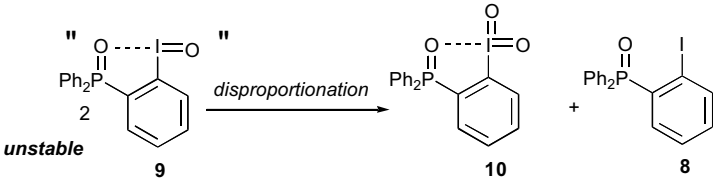
A novel method for selective and direct phosphorylation of various diols using silver(I) oxide, tetrabenzyl pyrophosphate (TBPP), and tetrahexylammonium iodide affording mono-phosphates was developed. We applied the present method to the synthesis of FTY720-phosphate.



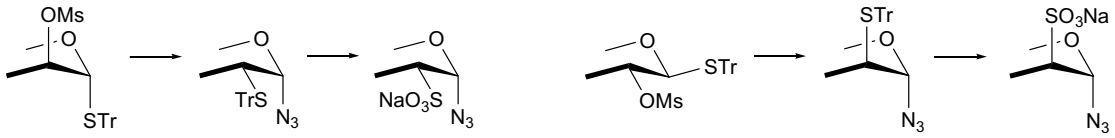


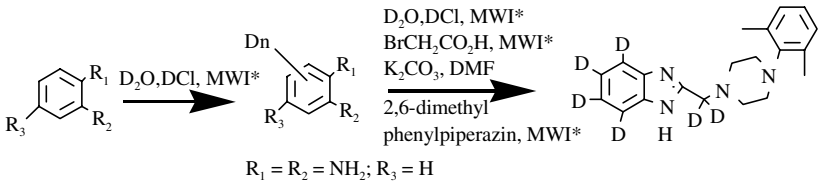
Methylene linked flavanol dimers and analogues have been synthesized through hydrogenation of the corresponding 8-formyl flavanol in the presence of an appropriate nucleophile.



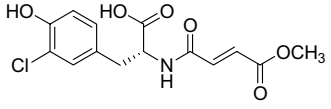


The synthesis and reactivity of a new potential IBX analogue (2-iodylphenyl)diphenyl-phosphine oxide **10** is described herein along with its analysis by single crystal X-ray diffraction.



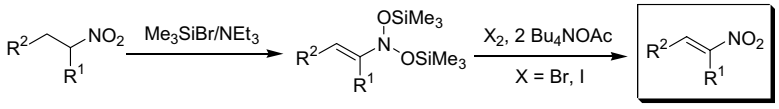


Aromatic deuterium compounds were prepared from the unlabeled parent compounds under microwave irradiation. This novel methodology was applied to the deuterium substituted benzimidazole derivative.

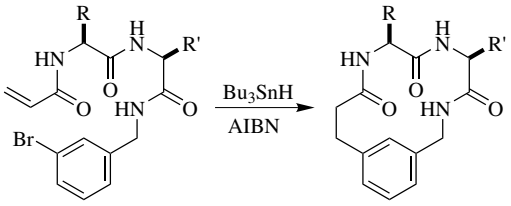


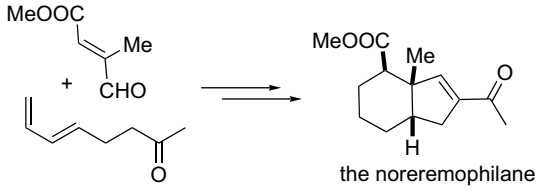
(-)-Xylariamide A **1**

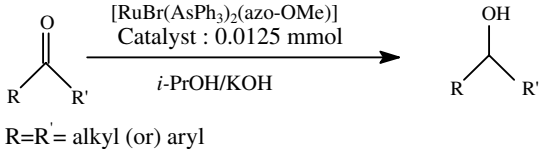
The first synthesis of the fungal natural product (−)-xylariamide A **1** is reported. *N*,*O*-Bis(trimethylsilyl)acetamide induced coupling of D-tyrosine with (*E*)-but-2-enedioic acid 2,5-dioxo-pyrrolidin-1-yl ester methyl ester **5** produced the dechloro natural product **6**, which was subsequently monochlorinated using oxone and KCl to yield synthetic **1**. (−)-Xylariamide A **1**, (+)-xylariamide A **2** and (−)-dechloroxylariamide A **6** displayed no cytotoxic or antimicrobial activity.

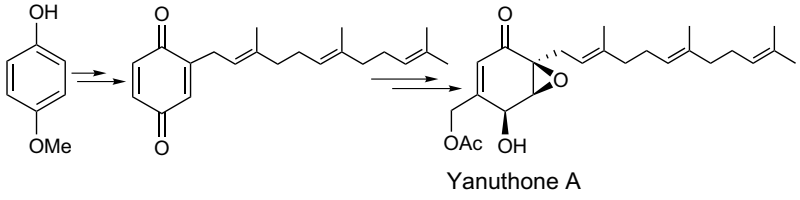


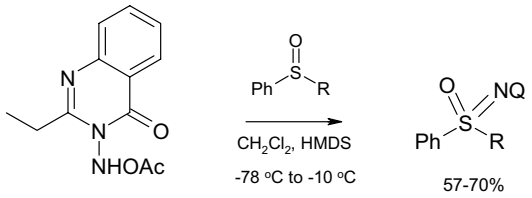
The oxidation of *N*,*N*-bis(silyloxy)enamines as the key stage in a new synthesis of α-nitroalkenes from nitro compounds is described.



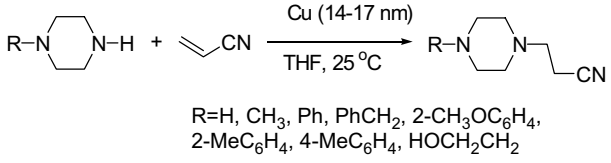






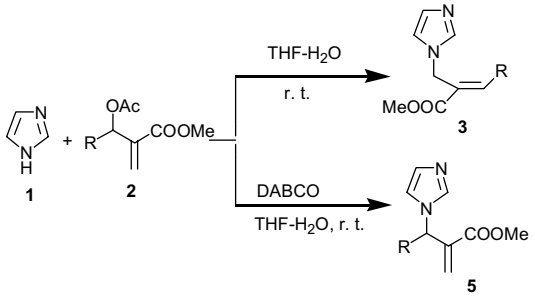


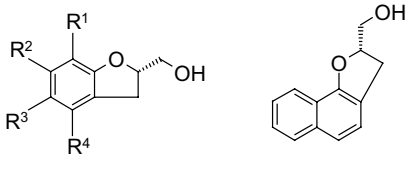
The reaction of 3-acetoxyaminoquinazolinone (QNHOAc) with various sulfoxides in the presence of HMDS as an acetic acid scavenger, afforded the corresponding sulfoximides in good yields. Sulfoximidation of phenyl methyl sulfoxide using a Q∗NHOAc having a stereogenic centre on its 2-position gave the products in 1.3:1 ratio of diastereomers.



Cu-nanoparticles, 14–17 nm in size, efficiently catalyse the Michael-type reaction of *N*-alkyl- and *N*-arylpiperazines with acrylonitrile in high yield under mild reaction conditions.

Without additional reagents, the Baylis–Hillman acetates **2** underwent nucleophilic substitution reaction with imidazole readily in aqueous THF solution to afford the corresponding *N*-substituted imidazole derivatives **3** in good to excellent yields. Moreover, the reaction between the in situ generated DABCO salt of Baylis–Hillman acetates **4** and imidazole occurs in aqueous THF providing the S_N2 type products **5**. The simpler operational procedure, better stereoselectivity, and higher efficiency over conventional methods make the present protocol practical for the preparation of imidazole derivatives.





1a-c **13a**

1a : $R^1 = R^2 = R^4 = H$; $R^3 = NO_2$
1b : $R^1 = R^2 = R^4 = H$; $R^3 = CH_3$
1c : $R^1 = CH_3$; $R^2 = R^4 = H$; $R^3 = Cl$

OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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ISSN 0040-4039