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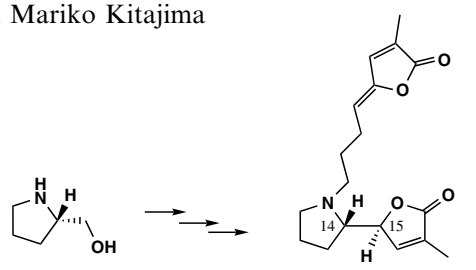
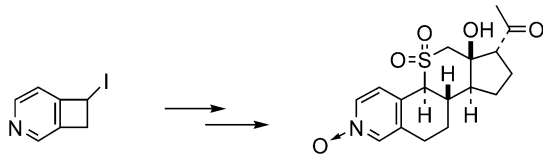
Tetrahedron Letters

Tetrahedron Letters Vol. 46, No. 35, 2005

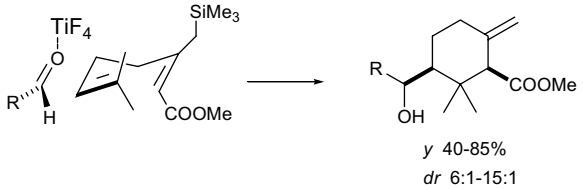
Contents

COMMUNICATIONS

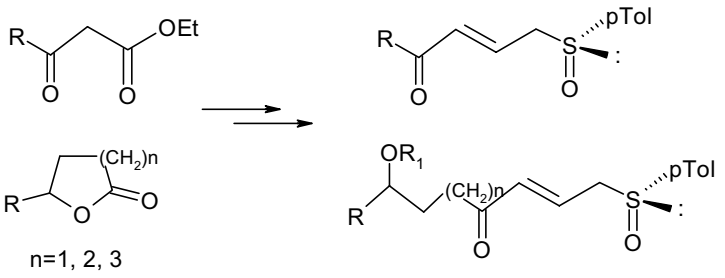


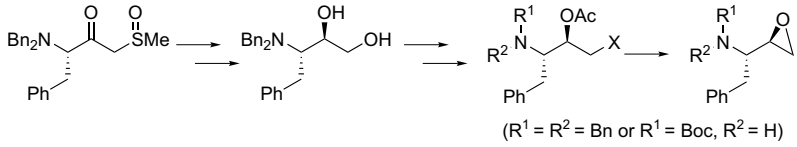


A novel route to 3-aza-11-thia-1,3,5(10)-trieno steroids is described.

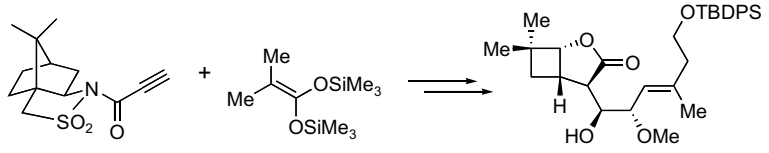


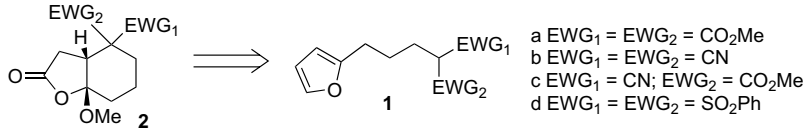
Titanium tetrafluoride promotes the addition of aldehydes to 2-trimethylsilylmethyl-1,5-dienes with concomitant biomimetic cyclization, affording 1,3-*cis*-disubstituted methylenecyclohexanes in good yields and high selectivity.

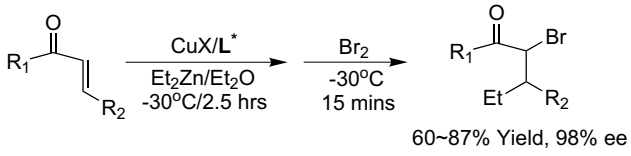


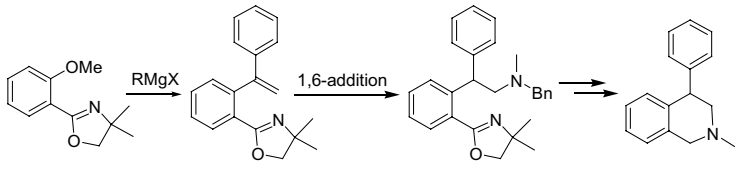


Synthesis of *threo* aminoalkyl epoxides involving Pummerer rearrangement of amino keto sulfoxide followed by highly diastereoselective reduction and stereospecific epoxidation.

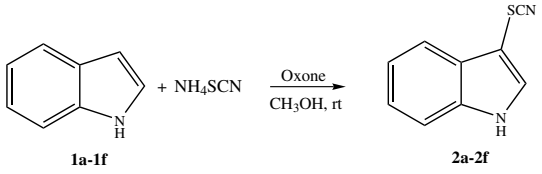






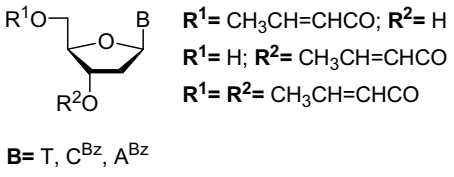


Key steps are based on oxazoline chemistry: nucleophilic substitution in an *ortho*-methoxyphenyloxazoline and a 1,6-conjugate addition to *o*-styrylphenyloxazoline.

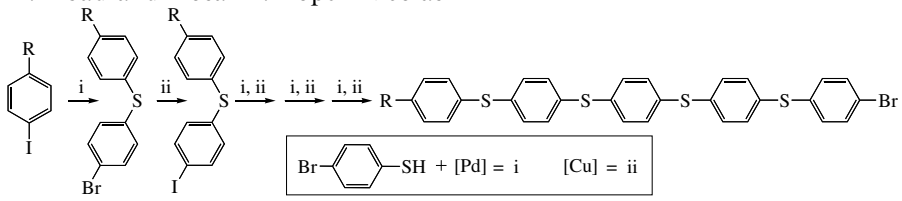


isolated yield of the products up to 98%

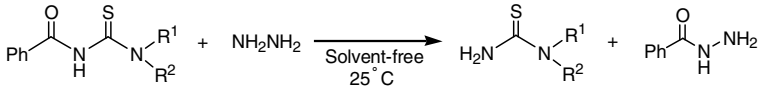
Indoles, pyrrole, aromatic amino compounds and 2-methoxycarbazole have been regioselectively thiocyanated using ammonium thiocyanate as a thiocyanation reagent and oxone as an oxidant.

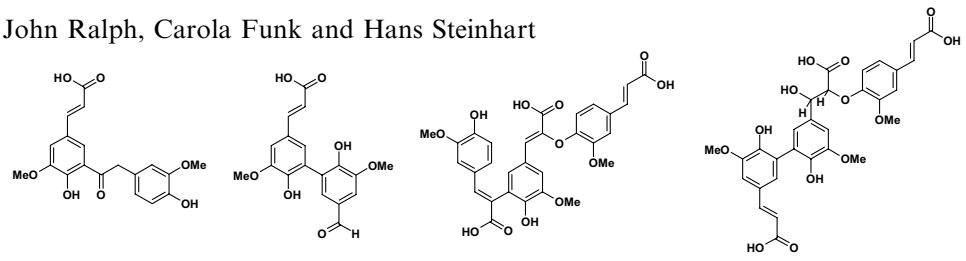


Regioselective syntheses of several *O*-crotonyl 2′-deoxynucleoside derivatives have been efficiently achieved using a biocatalytic methodology.

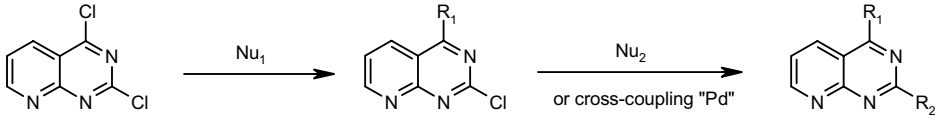


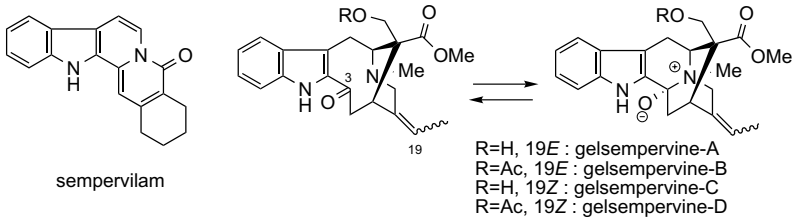
Oligothioethers 4-$RC_6H_4(SC_6H_4\text{-}4)_nX$ (n = 1–3; X = Br, I; R = NO_2. n = 1–3; X = Br; R = MeO. n = 1 and 2; X = I; R = MeO. n = 4; X = Br; R = NO_2) have been prepared through a process involving (i) palladium-catalyzed C–S coupling between 4-$RC_6H_4(SC_6H_4\text{-}4)_{n-1}I$ and 4-BrC_6H_4SH to give 4-$RC_6H_4(SC_6H_4\text{-}4)_nBr$ and (ii) copper-catalyzed replacement of Br by I.

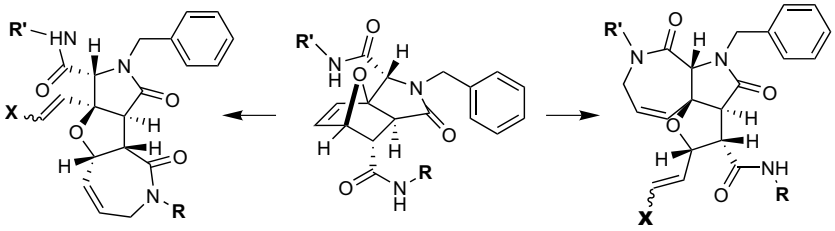




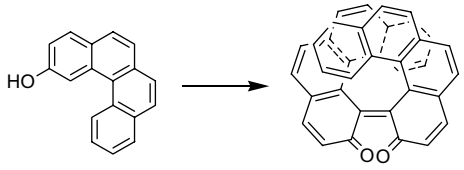
The structures of four new phenolic dimers and trimers that contain ferulic acid moieties isolated from maize bran fiber were established by 1D/2D NMR and mass spectrometry. The trimers were found to expand the number of products potentially involved in cell wall cross-linking whereas the biological role of the dimers partially remains uncertain.

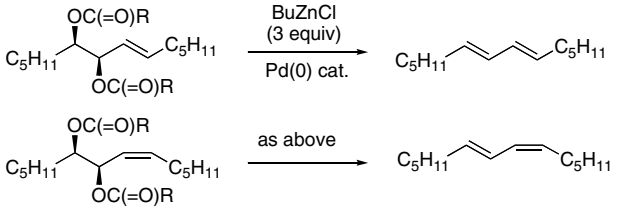


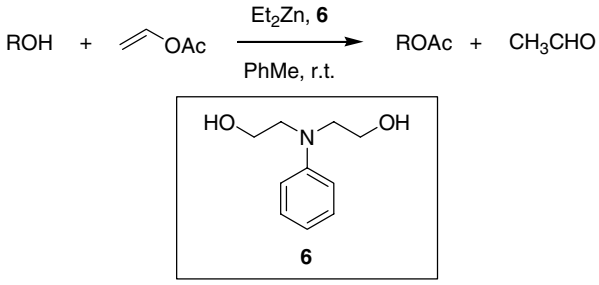


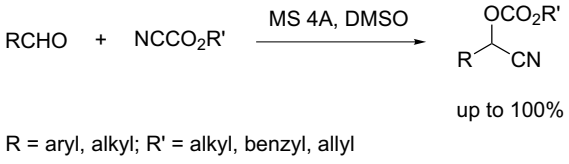


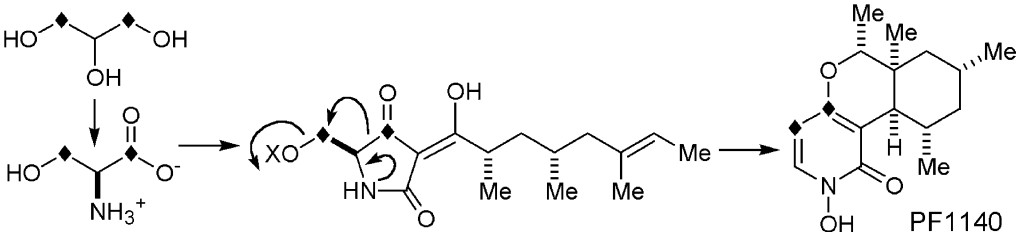
By means of diversity-oriented organic synthesis, a 7-oxanorbornene skeleton was transformed into two different skeletons efficiently.

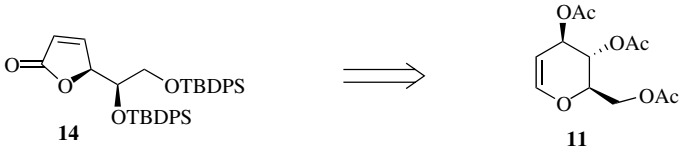


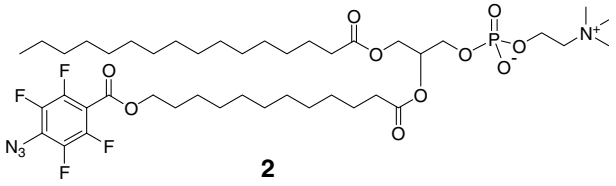




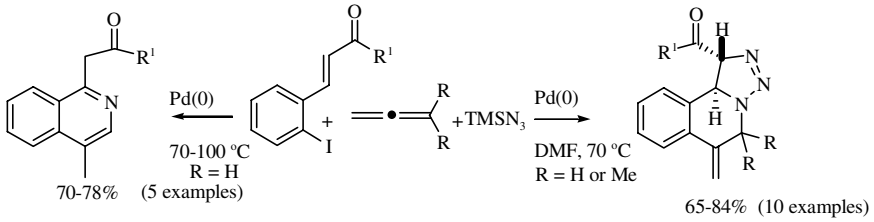


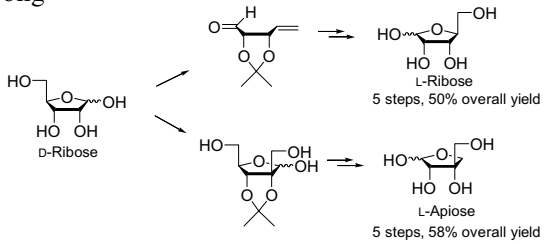




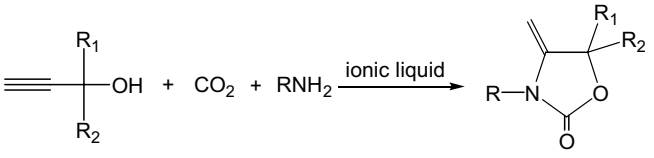


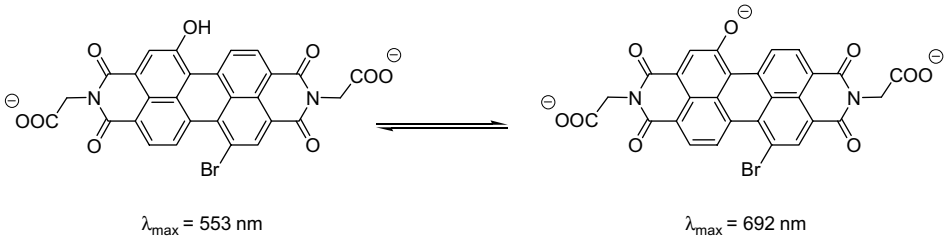
A phospholipidic probe having the photoactivatable tetrafluorophenylazido group incorporated into the fatty acid chain was synthesized and characterized with a view to studying the lipid–lipid and lipid–protein interactions using a photolabeling approach.

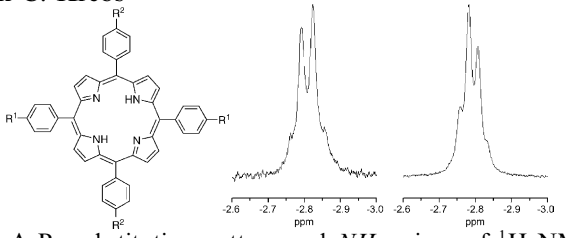




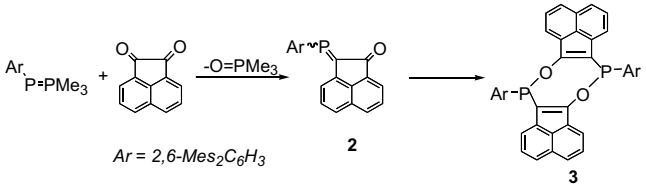
A preparative and short synthesis of L-ribose and L-apiose was accomplished starting from D-ribose via stereoselective *cis*-dihydroxylation and *C*2-hydroxymethylation, respectively.

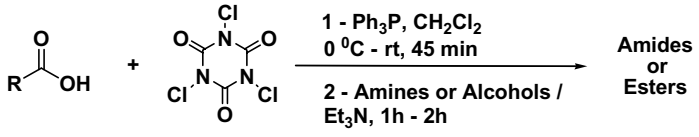


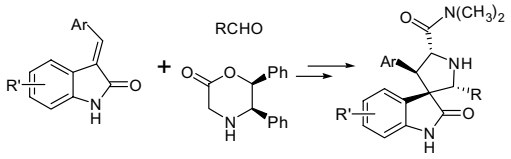


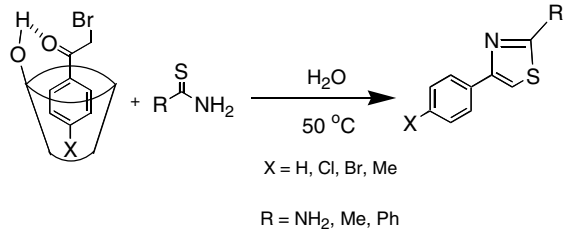


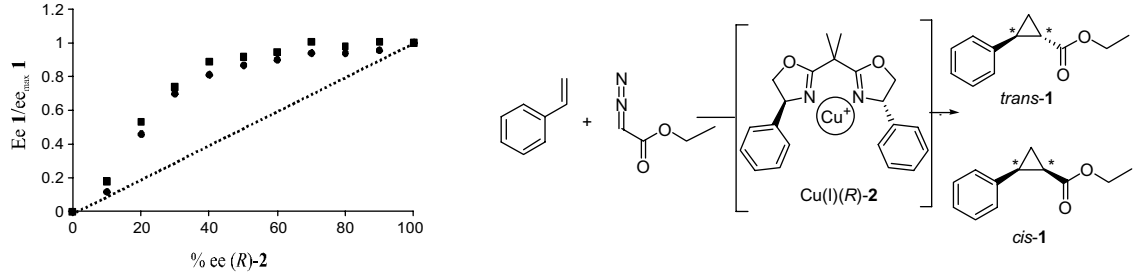
The porphyrin skelleton with a *trans*-A_2B_2 substitution pattern and *NH*-regions of ^{1}H NMR spectra for mixtures of porphyrins. Each spectrum is recorded for a mixture of porphyrins and clearly show that the NH resonances depend on the *meso*-substituent. In comparison to other analytical methods used (e.g. HPLC and X-ray), the NMR method is superior for looking at product distributions from porphyrin synthesis.

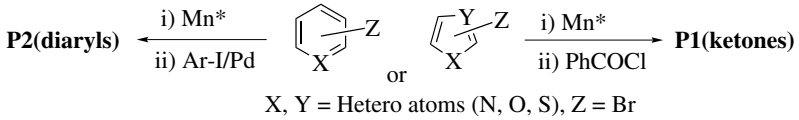




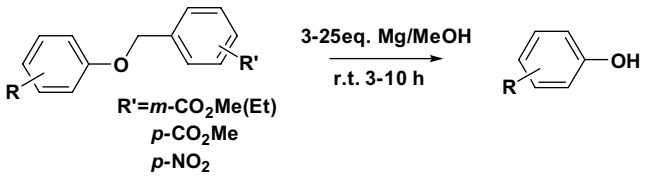


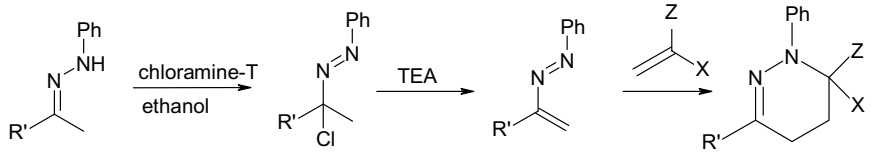






Direct preparation of heteroaryl manganese reagents was performed. The resulting organomanganese reagents were also coupled with electrophiles.





The reaction of ketohydrazones containing an α-methylene group with chloramine-T followed by treatment with triethylamine leads to the formation of azoalkenes via an α-chloroazo-compound, which can react intermolecularly and in situ with olefinic compounds to produce tetrahydropyridazine derivatives in good yields.

OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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ISSN 0040-4039