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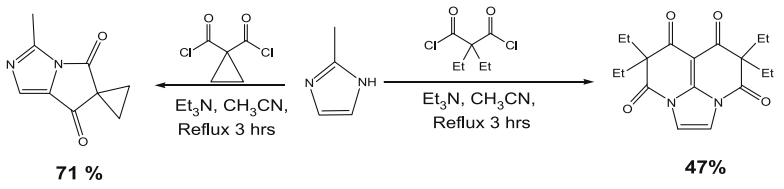
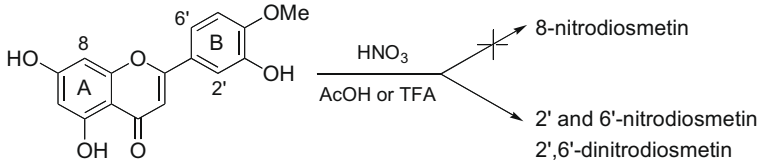
Contents

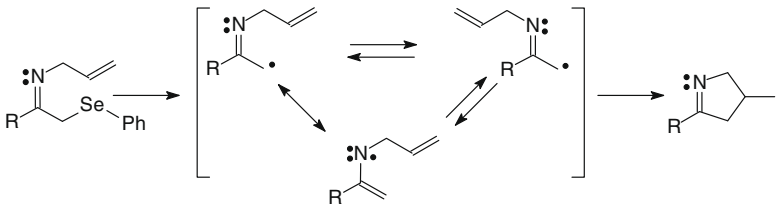
COMMUNICATIONS

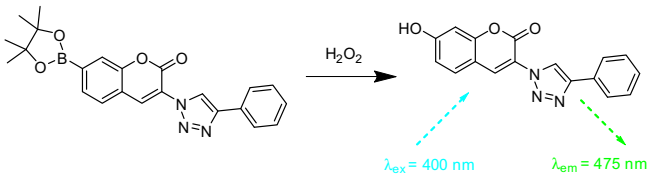


Highly functionalized heterocycles were synthesized in one-pot reactions of 2-alkylimidazoles or 2-methylbenzimidazoles with 1,3-diacid chlorides. Some of the cyclizations proceed through cyclic-*N*,*N*′-ketene acetal intermediates.

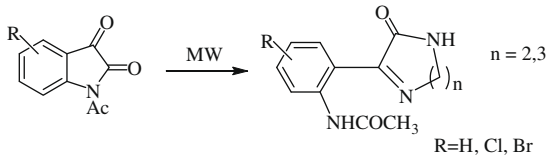


Nitration of diosmetin occurred only on the B-ring at C-2′ and C-6′, but not on the however highly activated ring A. Nitration in position C-8 was therefore performed in five steps, requiring selective deactivation of ring B.

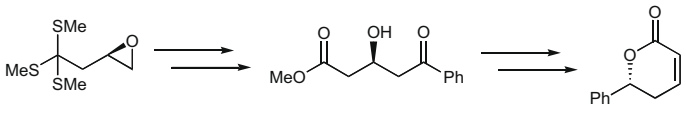




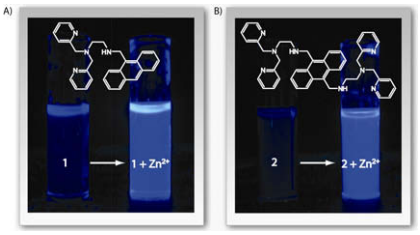
A novel 'click' modified coumarin-based fluorescent probe for hydrogen peroxide is depicted.



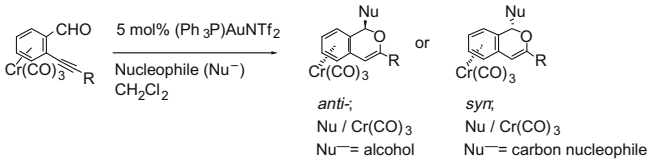
Dihydropyrazinones are obtained in fairly good yields from *N*-acetylisatins by means of ring cleavage with ethanol followed by ring closure with alkanediamines under microwave irradiation.



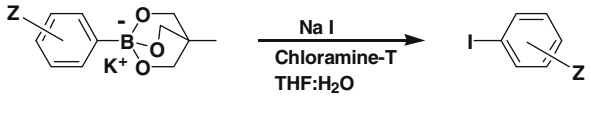
3-Hydroxy-5-oxo esters are useful precursors to biologically active compounds. An expedient three step synthesis of 3-hydroxy-5-oxo esters based on dithiane anion chemistry is presented along with the transformation of the 3-hydroxy-5-oxo esters into 5,6-dihydropyran-2-ones.



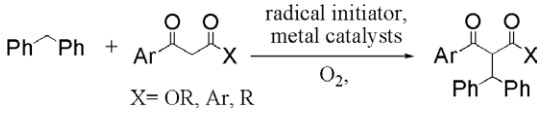
The synthesis and evaluation of two new ratiometric chemosensors for the quantification of potentially toxic free Zn^{2+} ions in aqueous solutions are described.

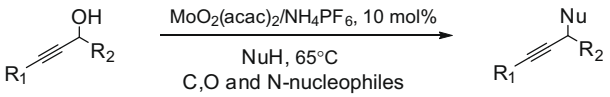


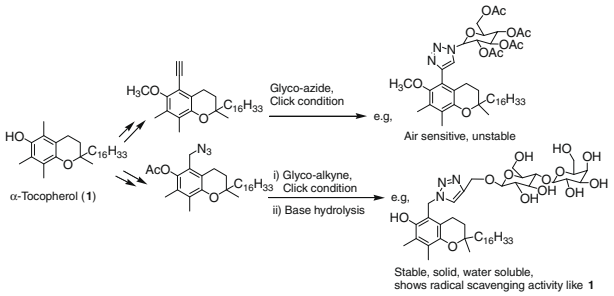
Gold(I)-catalyzed cyclization of *o*-alkynyl benzaldehyde chromium complexes gave stereoselectively 1-*anti*- and *syn*-functionalized 1*H*-isochromene chromium complexes depending on nucleophiles.



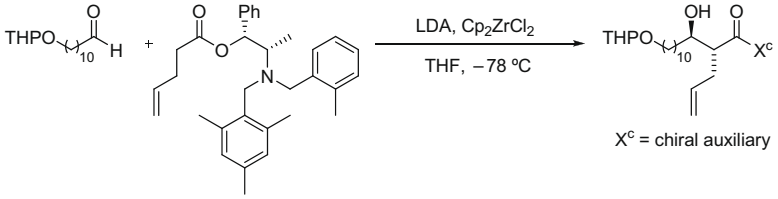
A facile synthesis of iodoarenes from triolboroates, water-soluble complexes of arylboronic acids, has been developed.

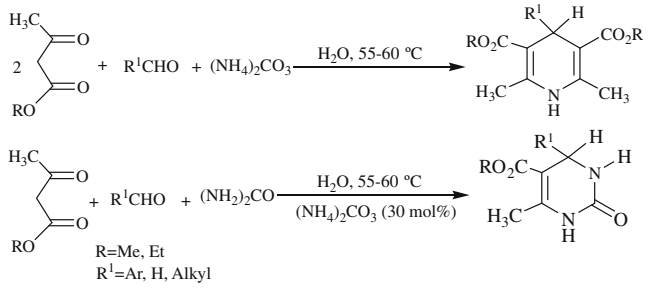


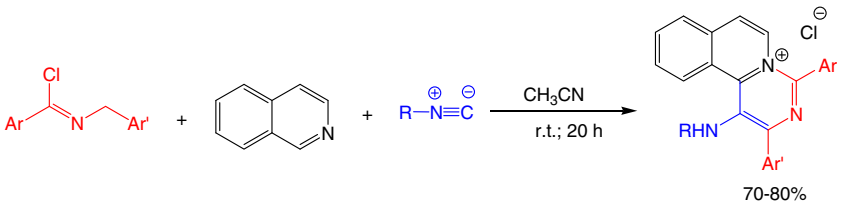


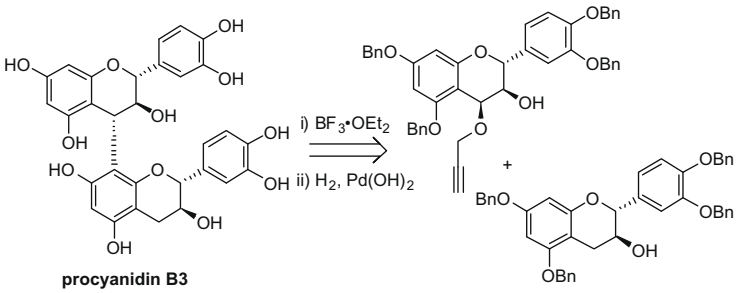


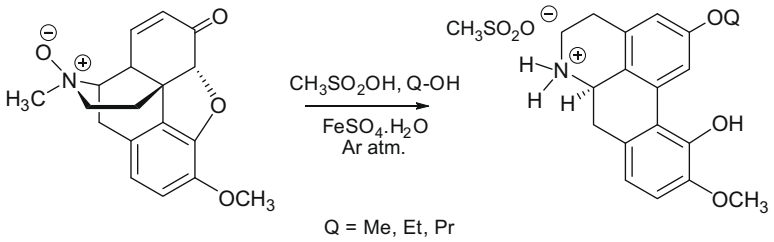
Glycoconjugates of α-tocopherol (**1**), synthesized using click chemistry between α-tocopherol-azide and glyco-alkynes are solids, have enhanced water solubility and exhibit radical-scavenging activities comparable to **1**, as determined by DPPH and lipid peroxidation assay methods.

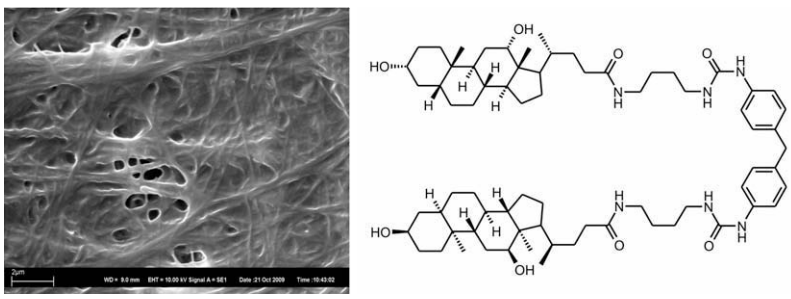


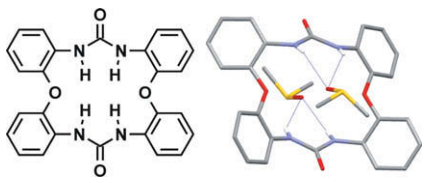




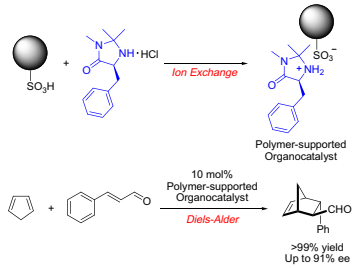




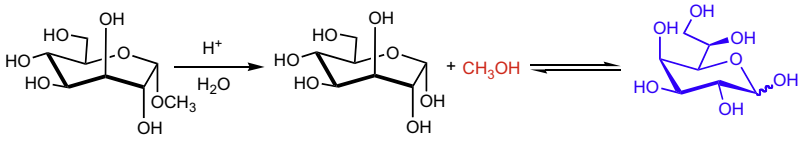


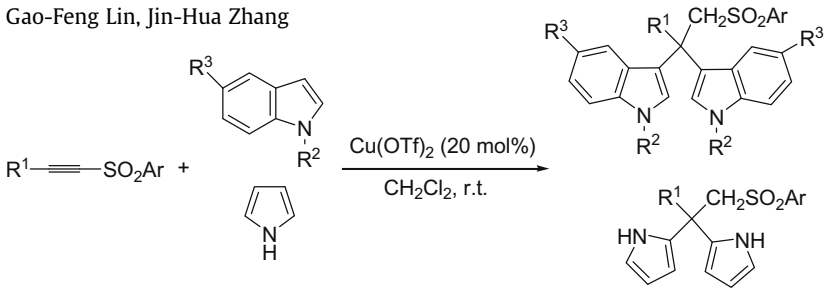


A new 16-membered cyclic diurea was synthesized and tested as potential receptor for fluoride. ^{1}H and ^{19}F NMR spectroscopy revealed an unexpected deprotonation of both urea groups after initial 1:1 binding. A single crystal X-ray structure shows bifurcated hydrogen bonds to two DMSO molecules.

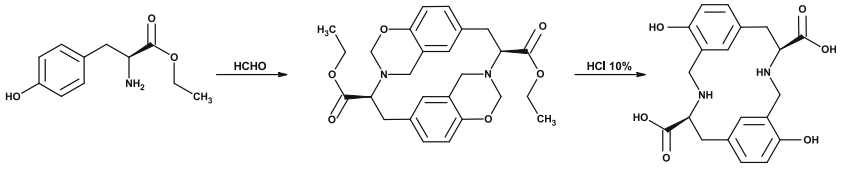


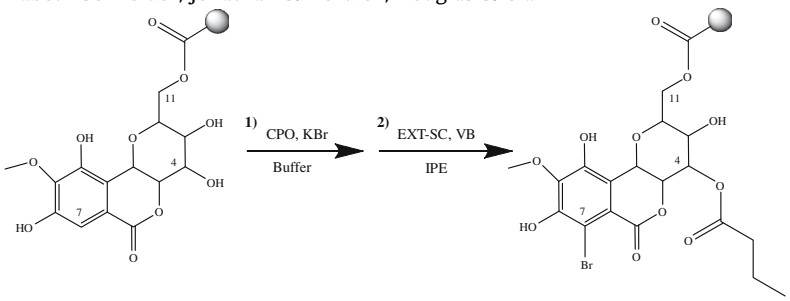
The polymer-supported organocatalyst prepared by ion exchange reaction with polymer-supported sulfonic acids was effective for Diels–Alder reaction of 1,3-cyclopentadiene and *trans*-cinnamaldehyde in CH_3OH/H_2O, affording good enantioselectivity and reusability.



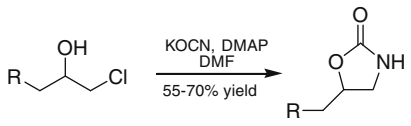


Sulfonyl-containing bis(indolyl)alkanes and bis(pyrrolyl)alkanes were synthesized conveniently by $Cu(OTf)_2$-catalyzed double Michael addition of indole and pyrrole to acetylenic sulfone.

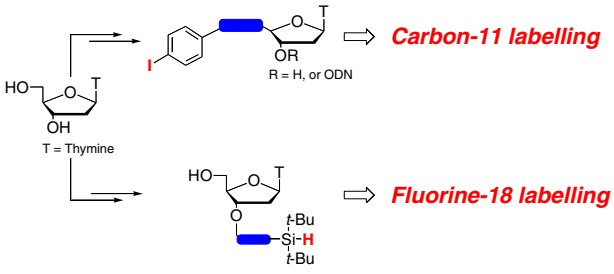


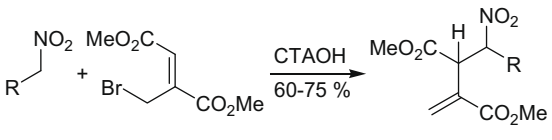


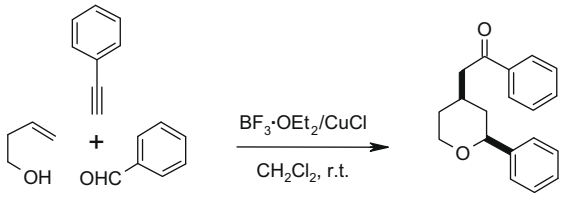
A natural flavonoid molecule, bergenin is attached to a solid support without a linker and is modified and cleaved enzymatically in both aqueous and organic media as a demonstration of solid-phase biocatalysis.



We report facile and simple synthesis of a variety of 2-oxazolidinones from the corresponding halohydrins by reaction with KOCN in DMF catalyzed by DMAP. DMAP and temperature play key roles in enriching the yield of 2-oxazolidinones. A few examples in this Letter are applicable to pharmaceutically important processes.







*Corresponding author
Supplementary data available via ScienceDirect

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