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Contents

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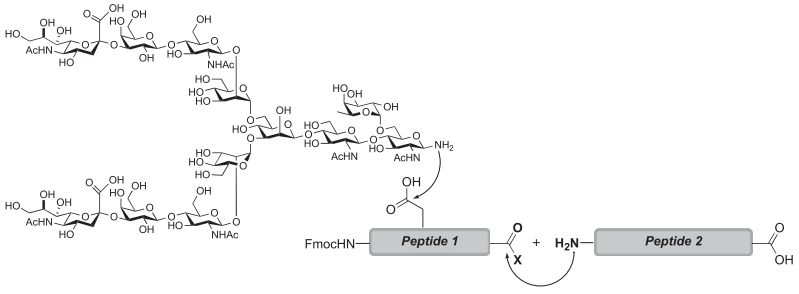

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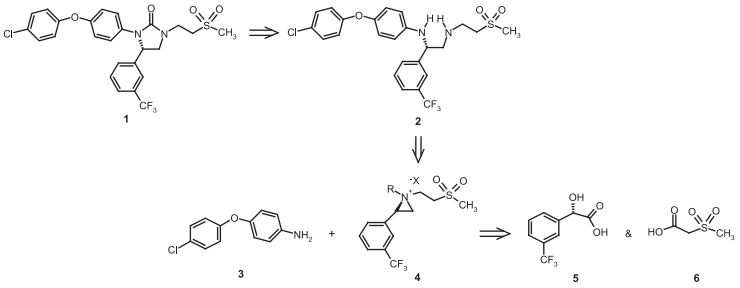
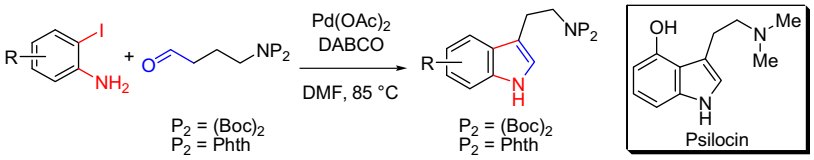
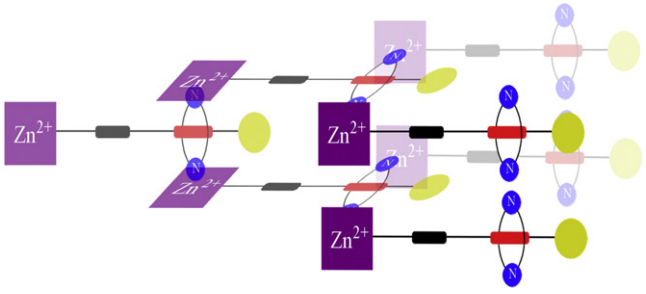
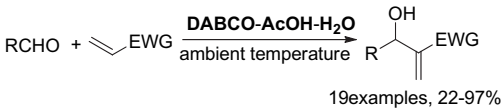
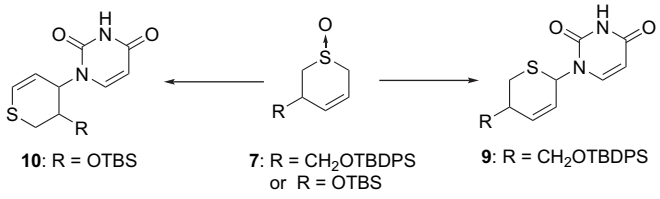
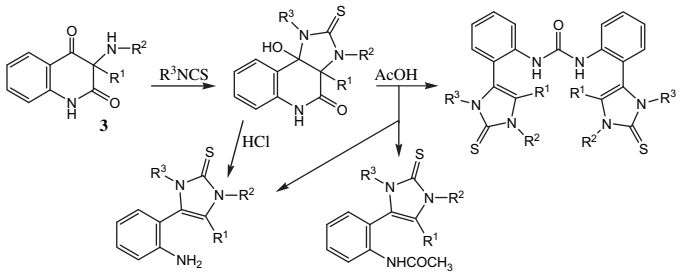


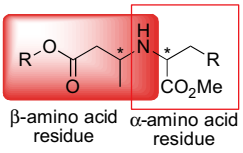


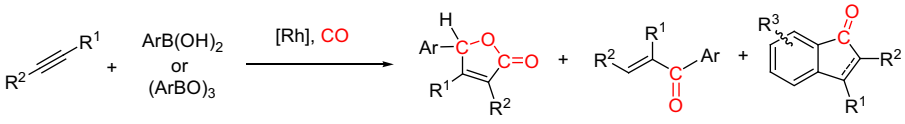


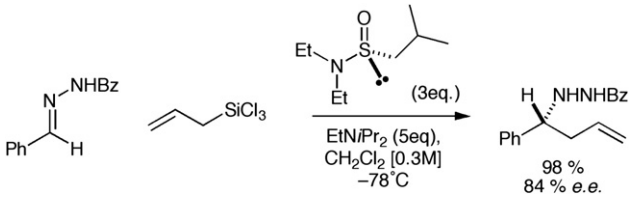


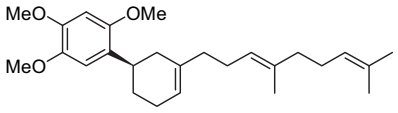


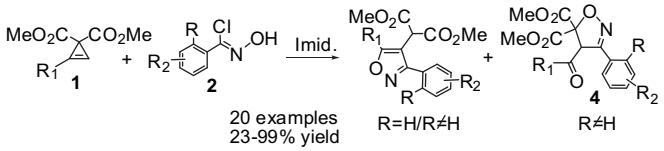




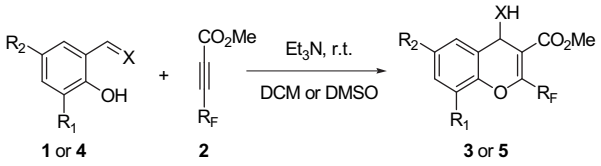




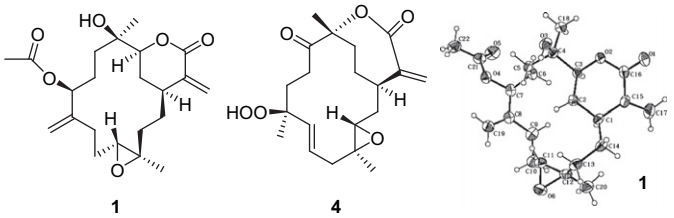




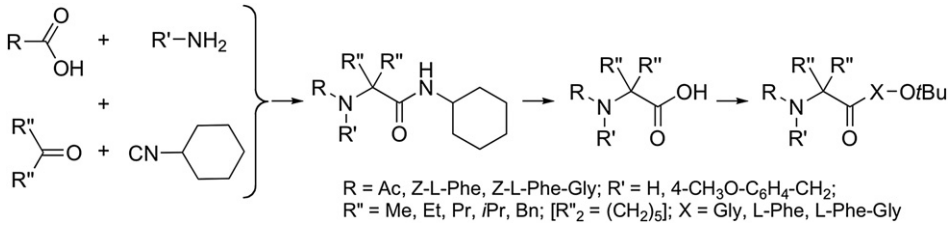
A highly regioselective tandem 1,3-dipolar cycloaddition of cyclopropene 1,1-diesters with nitrile oxides was described. This reaction supplied a new method for synthesis of isoxazole derivatives in moderate to excellent yields under mild conditions.



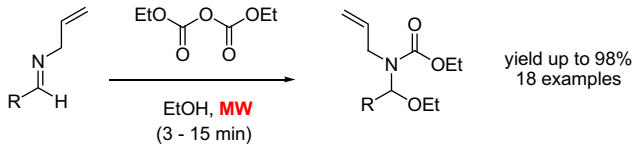
1, 3 X=NTs, **4, 5** X=O; R_F=CF_3, C_2F_5, n-C_3F_7; R_1=H, Me, OMe; R_2=H, Cl, NO_2



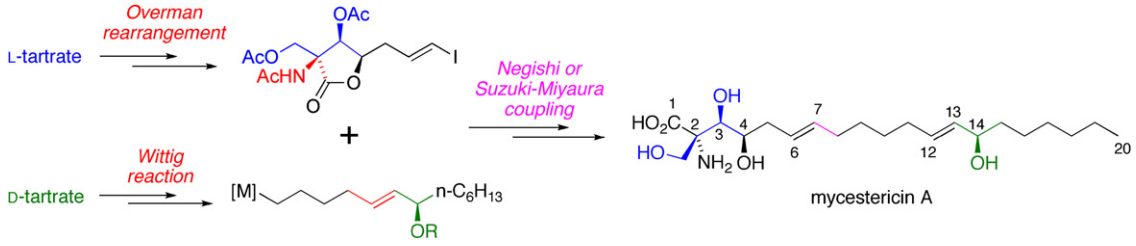
Chemical investigation of the soft coral *Sinularia flexibilis* led to the isolation of 10 new flexilarins A–J (**1**–**10**). Compound **1** was confirmed by X-ray crystallographic analysis. Compound **4** showed potent cytotoxicity against Hep2 tumor cells.

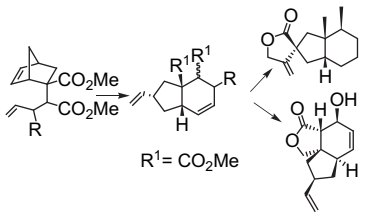


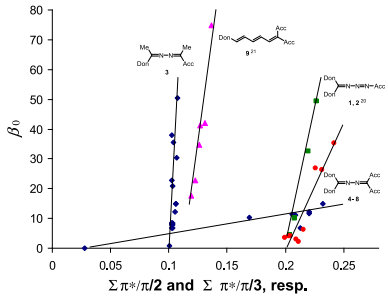
Tri and pentapeptides incorporating a central α,α-dialkylglycine or *N*,α,α-trialkylglycine residue by oxazolone, DCC/HOBt or HBTU couplings of the peptide acids obtained by total or partial acidolysis of Ugi–Passerini aducts.

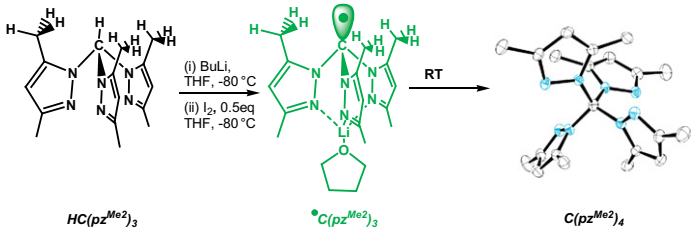


An efficient and reproducible synthesis of various α-ethoxycarbamates is described via a microwave heating mode.

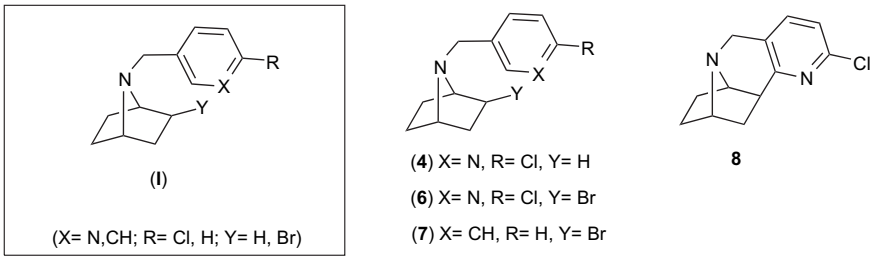




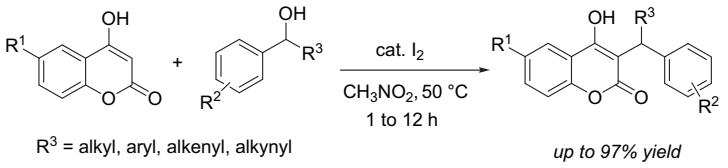


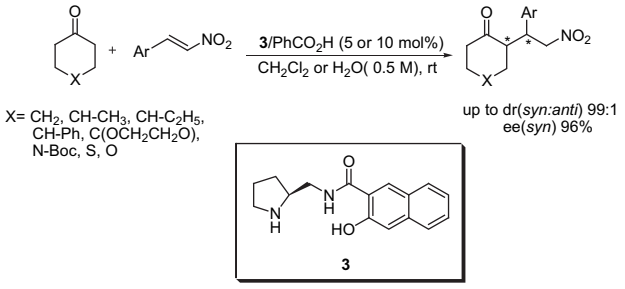


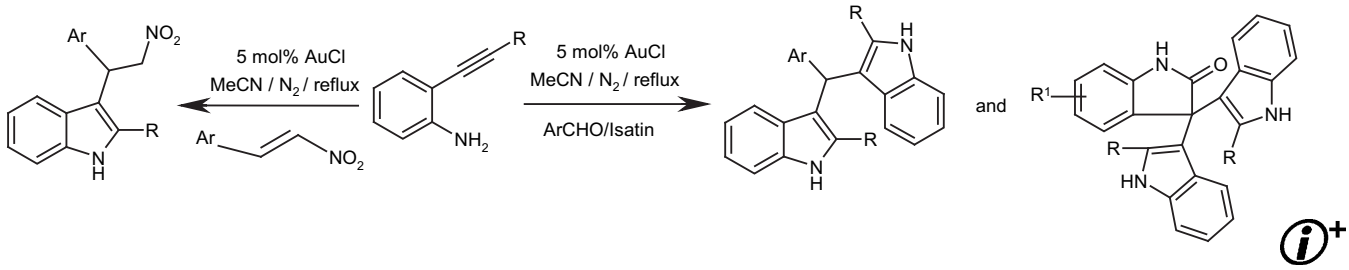
Iodine oxidation, at −80 °C, of the stable carbanion $^{-}C(pz^{Me2})_3$ yields the green C-centred radical $^{\bullet}C(pz^{Me2})_3$ which, upon warming to room temperature, yields the unprecedented tetrakis(3,5-dimethylpyrazolyl)methane, $C(pz^{Me2})_4$, which is stabilized by intramolecular C–H···π interactions.

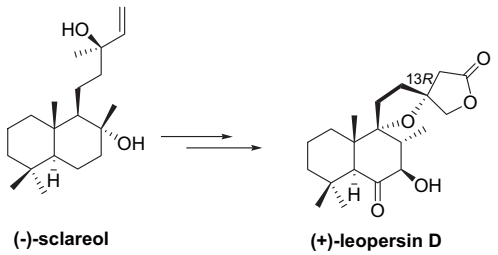


In this manuscript we have reported two new methods for the synthesis of epibatidine analogues bearing the *N*-arylalkyl and the *N*-aryl-7-azabicyclo[2.2.1]heptane skeleton. Furthermore, DFT studies have been carried out on the reaction mechanisms to account for the results.

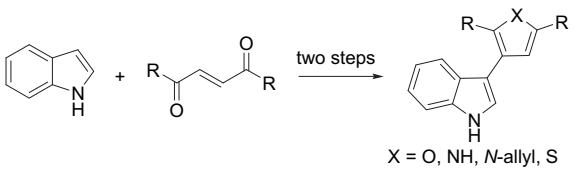


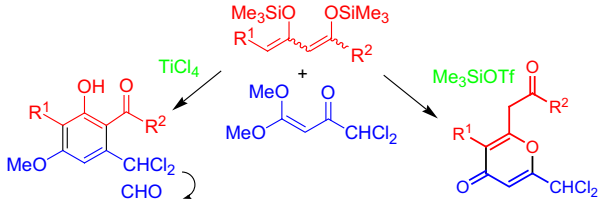


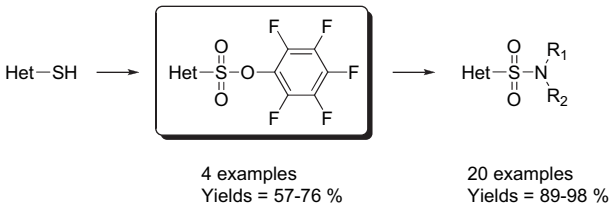


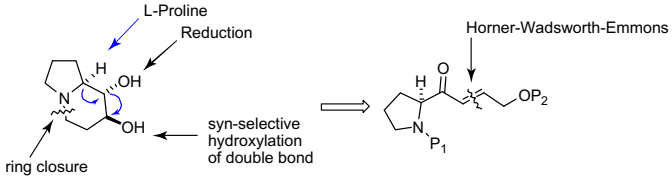


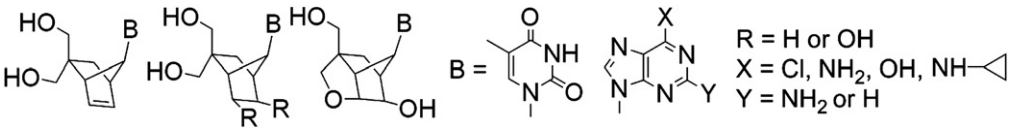
The spirolabdanolide (+)-leopersin D has been synthesized from (−)-sclareol. The absolute configuration of the natural product has been established.

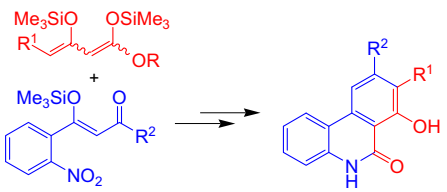


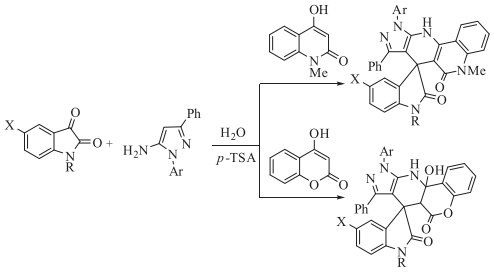


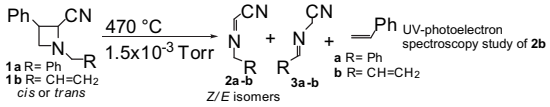


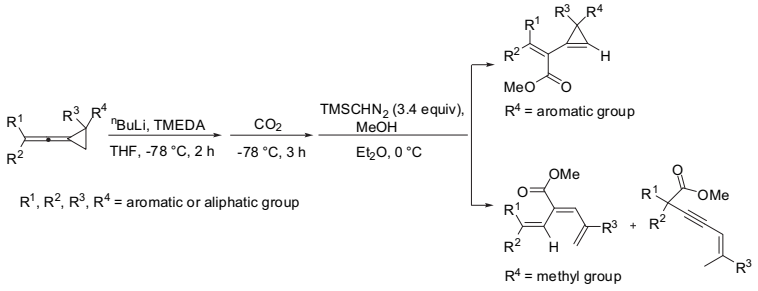




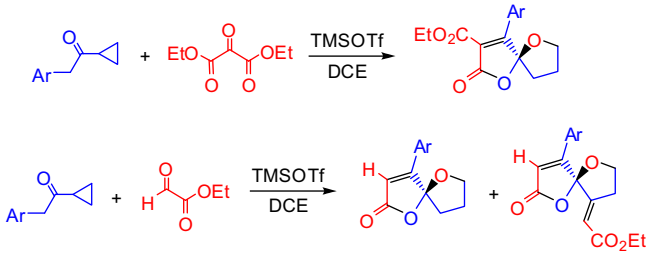




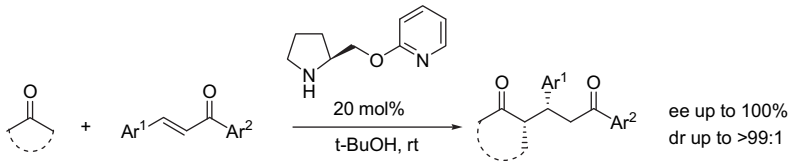


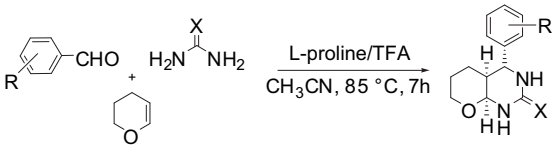


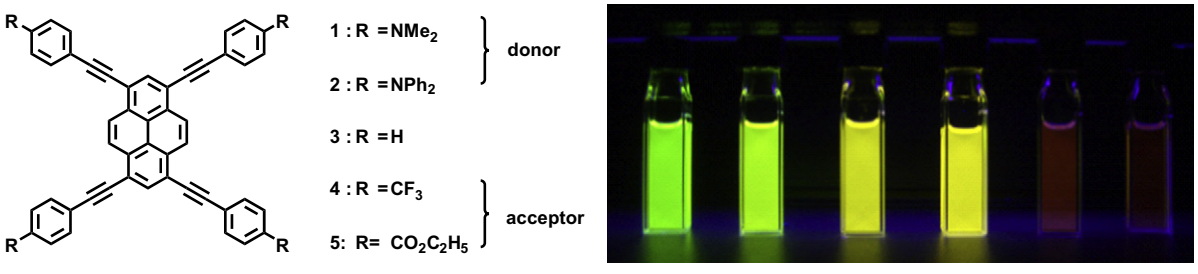
^{n}BuLi-mediated carboxylation of vinylidenecyclopropanes with CO_2 followed by the further transformation was realized to give the corresponding adducts in moderate to good yields.

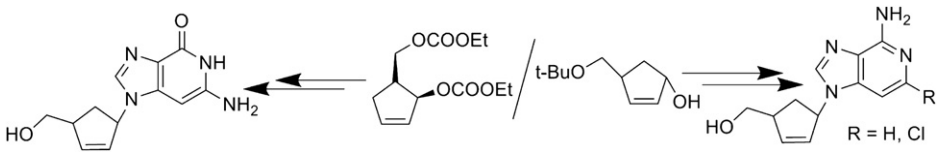


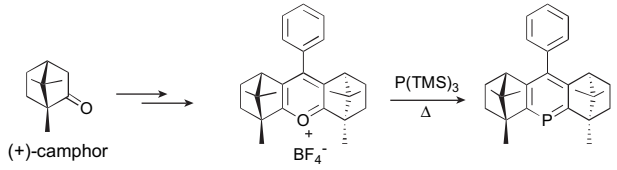
Lewis acid-mediated reactions of 1-cyclopropyl-2-arylethanone derivatives with diethyl 2-oxomalonate and ethyl 2-oxoacetate have been investigated and the corresponding functionalized 1,6-dioxa-spiro[4.4]non-3-en-2-one derivatives were formed in moderate to excellent yields via a tandem reaction process.

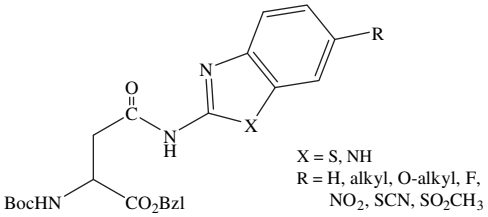


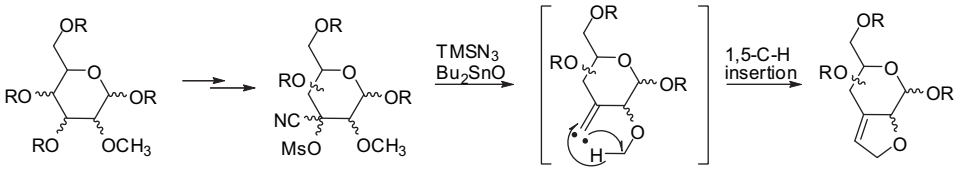


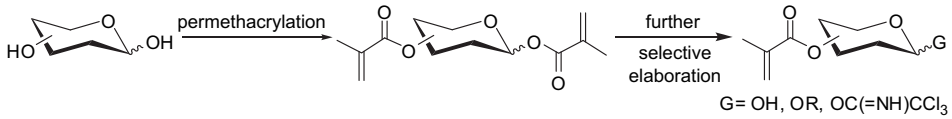


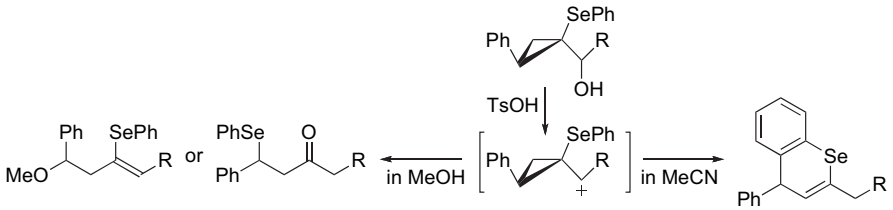


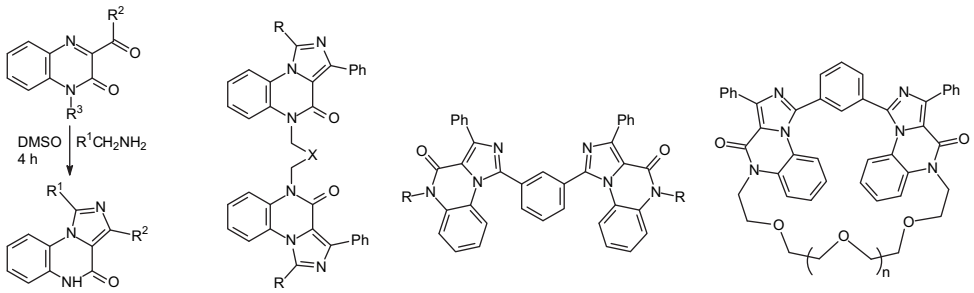


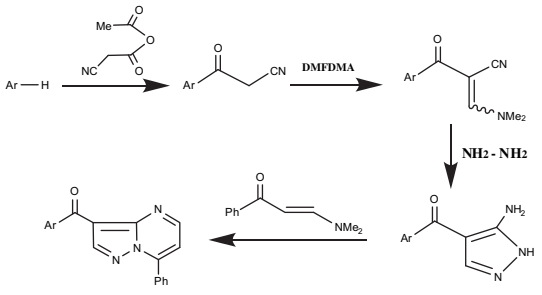


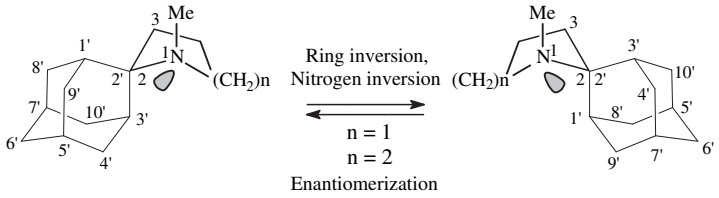


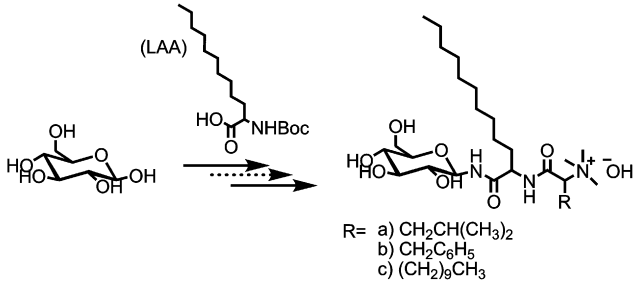


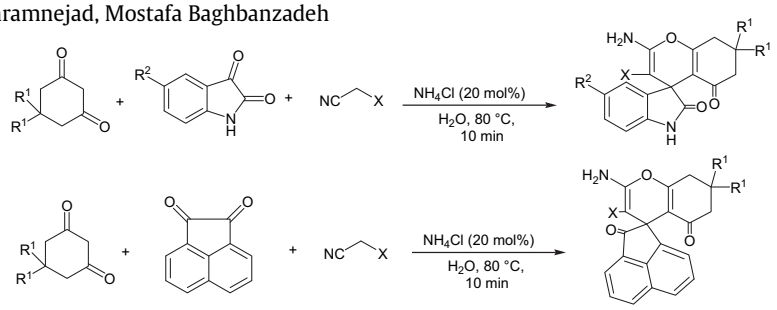


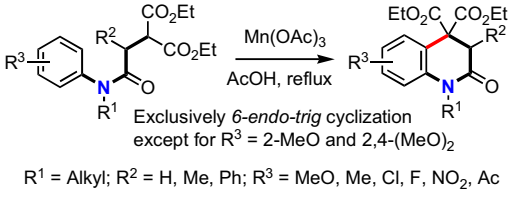


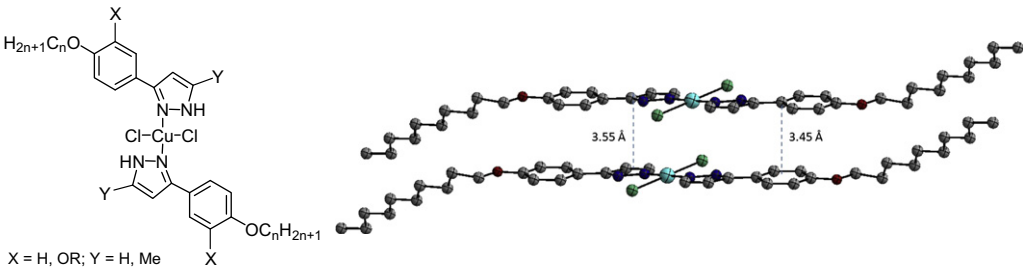


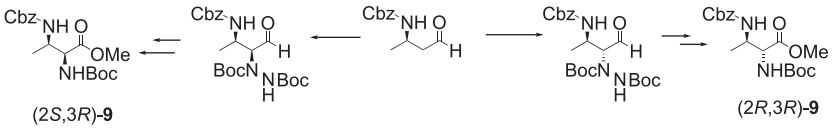


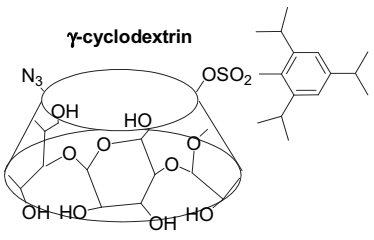


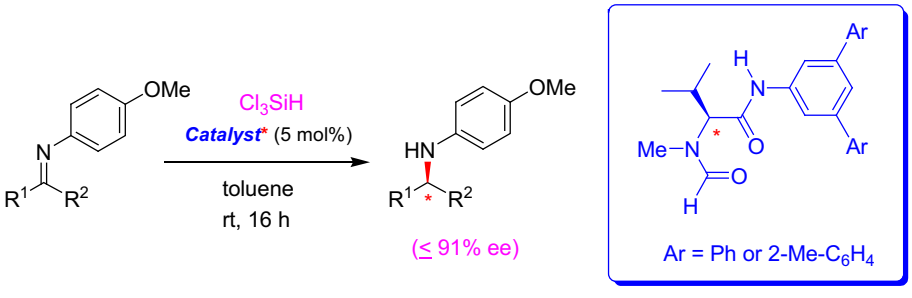


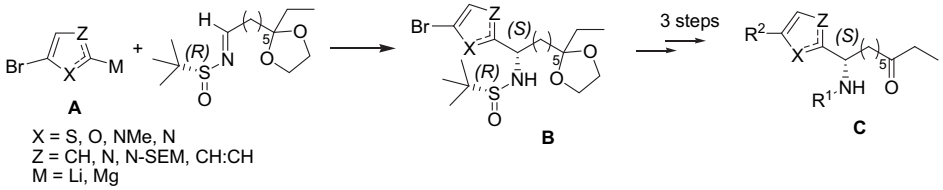


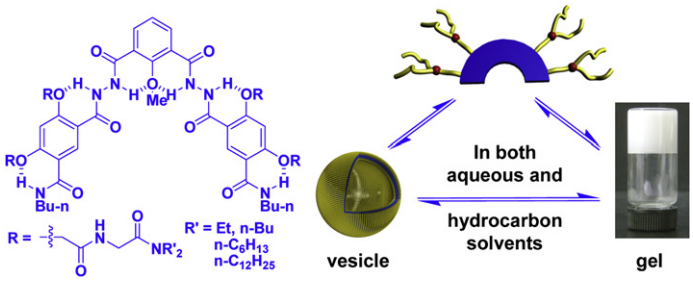












OTHER CONTENT

*Corresponding author
Supplementary data available via ScienceDirect

COVER

The cover image shows the glycoprotein hormone erythropoietin set against a backdrop of red blood cells. Oligosaccharide and peptide building blocks are assembled through chemical synthesis to provide advanced glycopolypeptide structures for our studies towards the synthesis of homogeneous erythropoietin.
The cover figure was designed by Tony J. Riley of MSKCC.

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