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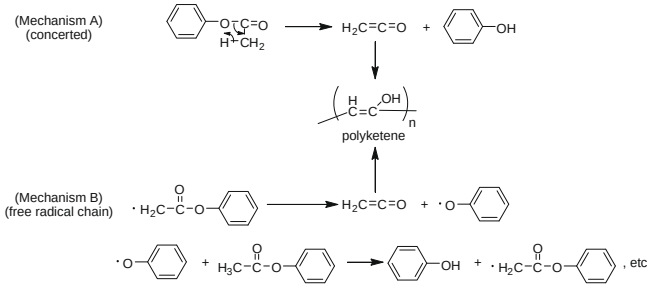
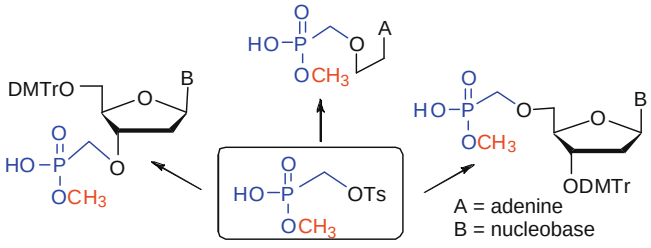
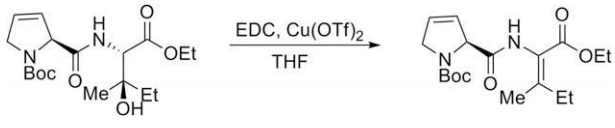
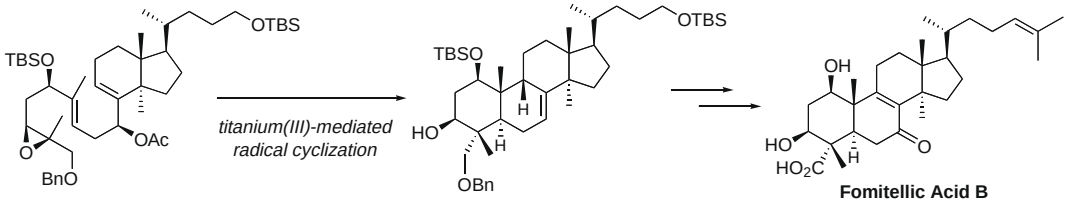
Contents

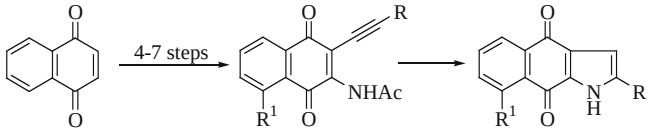
COMMUNICATIONS

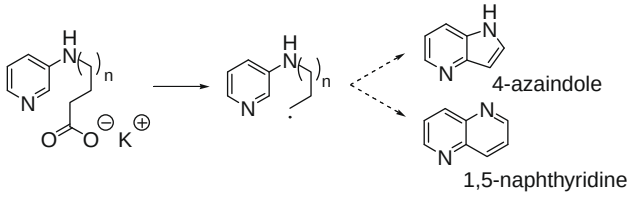




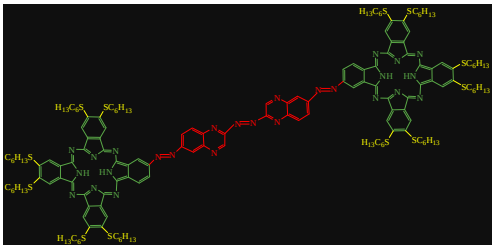




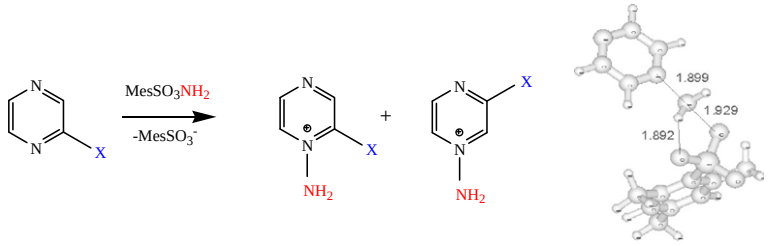




Mechanistic insights are provided on the use of the Minisci reaction to construct aza-heterocyclic systems such as azaindoles and 1,5-naphthyridines.

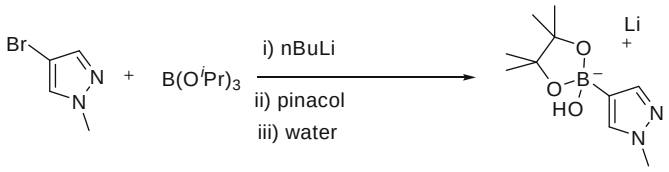


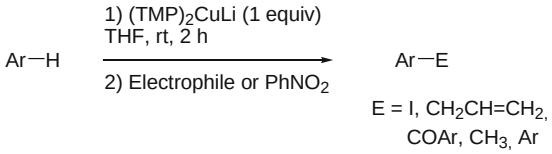
A new azo-coupled metal-free bisphthalocyanine is synthesized. The effect of the azo units on the position and intensity of the electronic absorption and magnetic circular dichroism (MCD) spectra of the bisphthalocyanine is described.



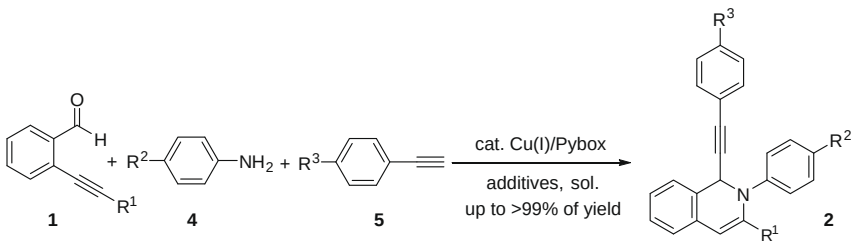
lg **(2:3)** = -0.24 + 0.87 σ_I - 1.03 $\sigma_R°$ + 0.94·$E_s°$

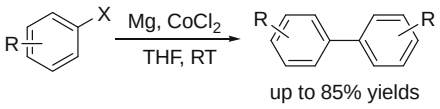
DFT-method



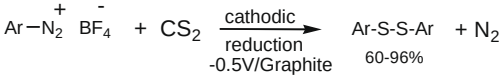


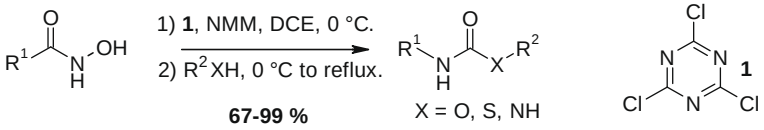
Deproto-cupration of aromatics including heterocycles using the Gilman-type amido-cuprate $(TMP)_2CuLi$ is described.

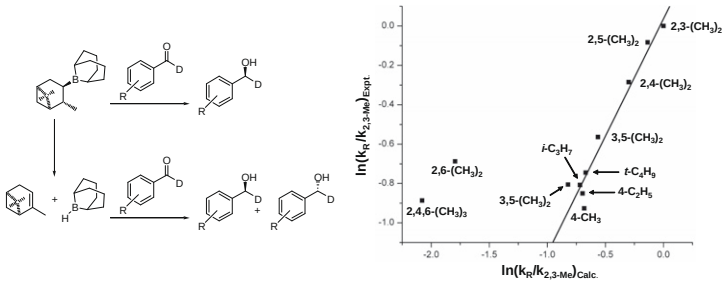


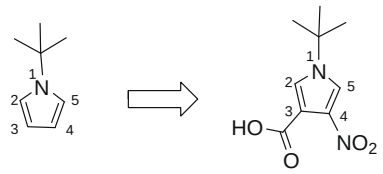


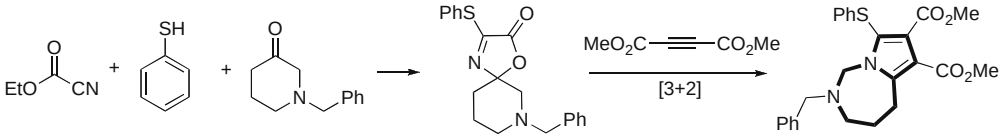
An efficient procedure for the synthesis of symmetric biphenyl and olefinic compounds was reported by cobalt-catalyzed direct homo-coupling reaction of aryl and alkenyl bromide in the presence of metallic magnesium using atmospheric oxygen as the oxidant.

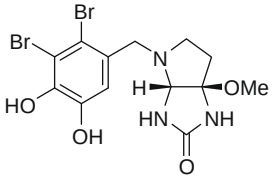


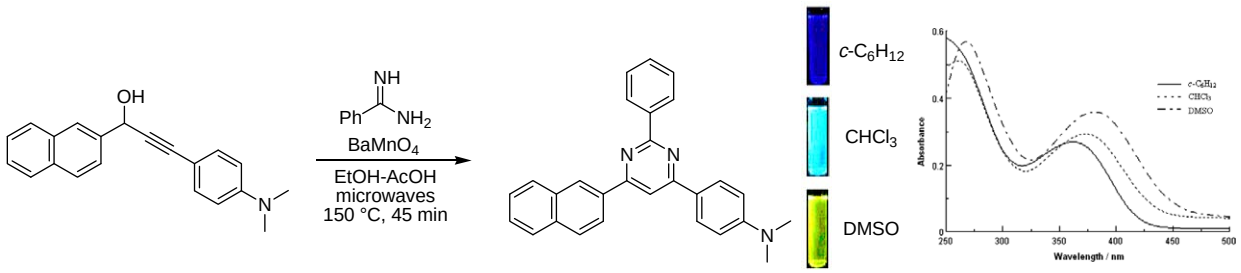




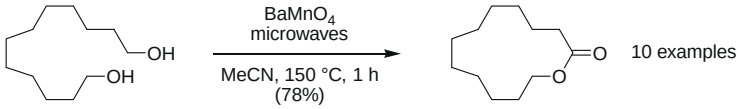




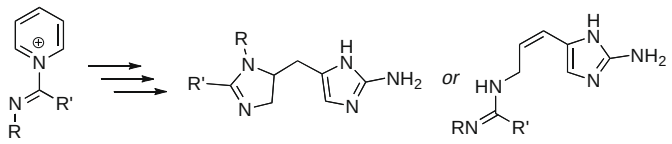




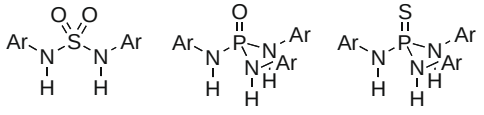
A series of π-extended pyrimidines with unusual photophysical properties is prepared rapidly and efficiently by microwave-assisted tandem oxidation/heterocyclocondensation using $BaMnO_4$.



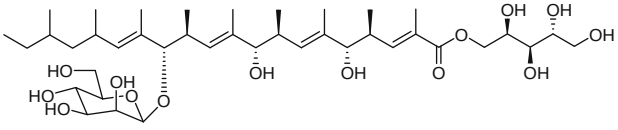
Tandem oxidation/heterocyclocondensation of diols using $BaMnO_4$ gives the corresponding lactone rapidly and efficiently under microwave dielectric heating without the need for chromatographic purification.

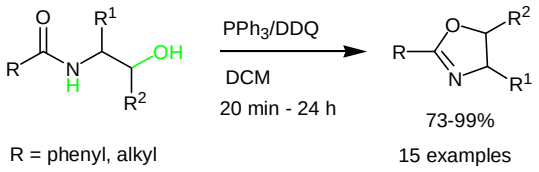


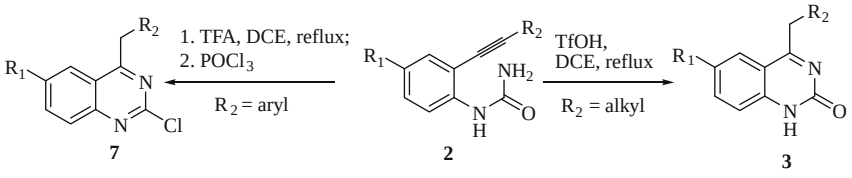
New 2-aminoimidazole (2-AI) and imidazoline derivatives were obtained in three steps through the reduction of *N*-pyridinium imidates into 1,2-dihydropyridine imidates and oxidative addition of guanidine derivatives. Among the possible transformations, imidate substitution allows selectivity in the last deprotection step, leading to an original 2-aminoimidazolo-imidazoline skeleton.

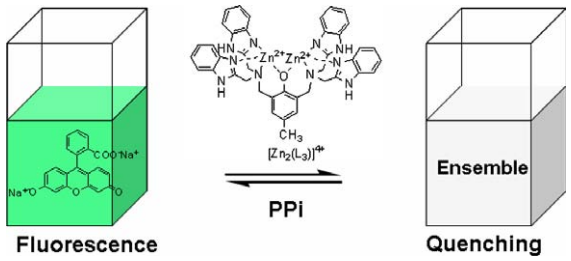


New achiral sulfamide, phosphoric triamide, and thiophosphoric triamide compounds have been synthesized. Their activity as hydrogen bond catalysts for the Friedel–Crafts and Baylis–Hillman reactions compares favorably with that of a known and an active thiourea catalyst. The new compounds were also studied by X-ray crystallography and their solid state structures are described.

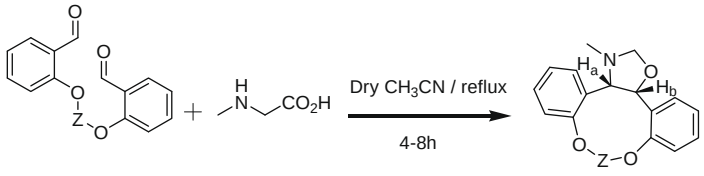




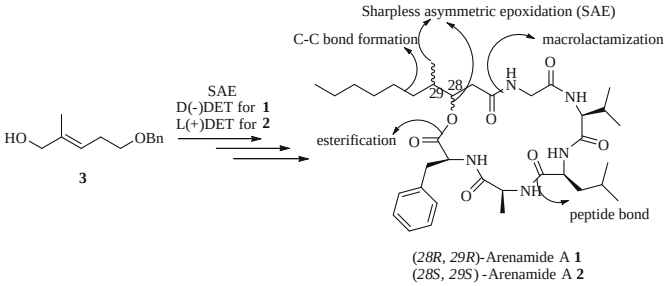


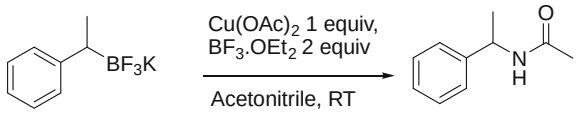


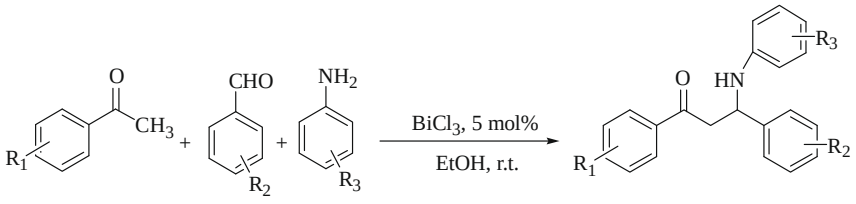
A new chemosensing ensemble that can effectively differentiate pyrophosphate from phosphate and other biologically important anions in 100% aqueous solution at physiological pH has been developed.

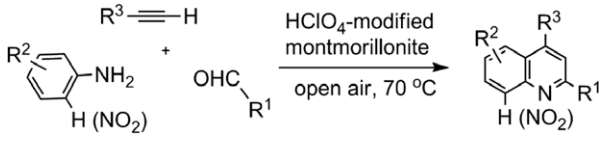


a) Z = -$(CH_2)_4$- , b) Z = -$(CH_2)_2$-, C) Z = *o*-xylyl, d) Z = *m-xylyl*

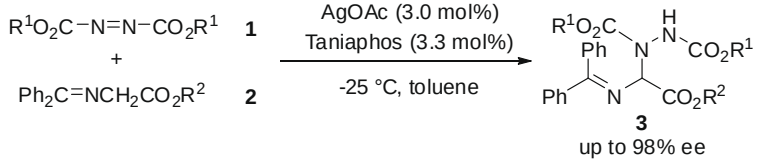




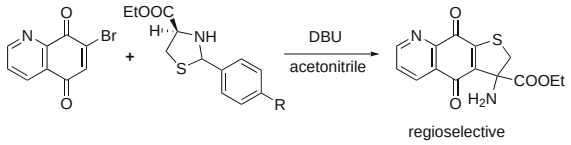


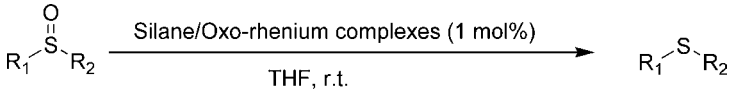


$HClO_4$-modified montmorillonite was found to be crucial catalyst in promoting a new domino process of three-component Povarov reaction–aerobic dehydrogenation toward the synthesis of polysubstituted quinolines relevant to antimalarials.

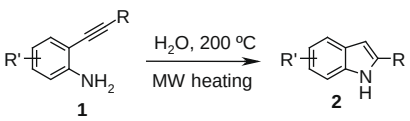


Asymmetric amination of glycine Schiff bases with azodicarboxylates has been developed with high yields and up to 98% ee using AgOAc/Taniaphos complex as the catalyst.

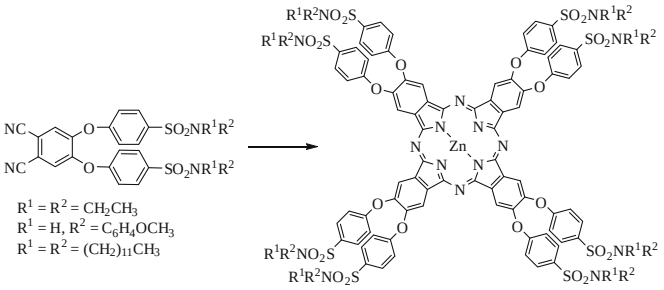


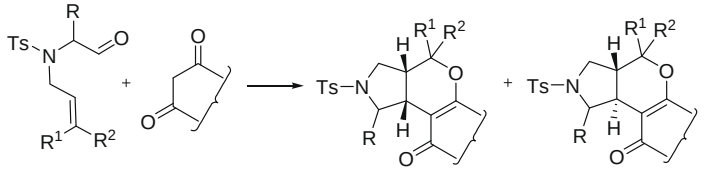


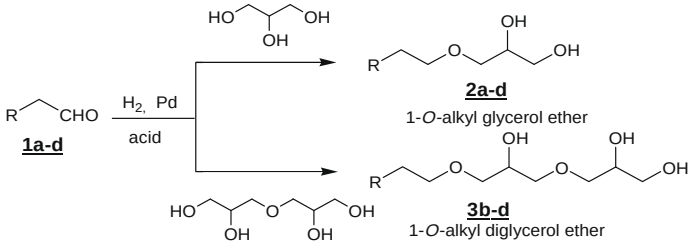
The catalytic system silane/oxo-rhenium complexes is highly efficient and chemoselective for the reduction of a wide range of sulfoxides in excellent yields under mild conditions.



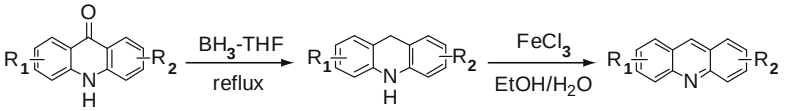
An unprecedented green methodology is described for the preparation of differently substituted indoles via microwave-assisted cycloisomerization of 2-alkynylaniline derivatives in water. Moderate to good yields in the cyclization can be achieved for a variety of 2-aminoaryl alkynes. Reactions are run without any added metal catalyst, acid, or base, and do not take place by applying conventional heating.

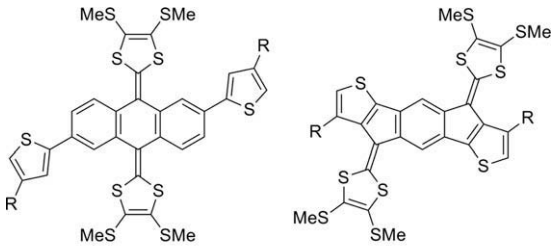






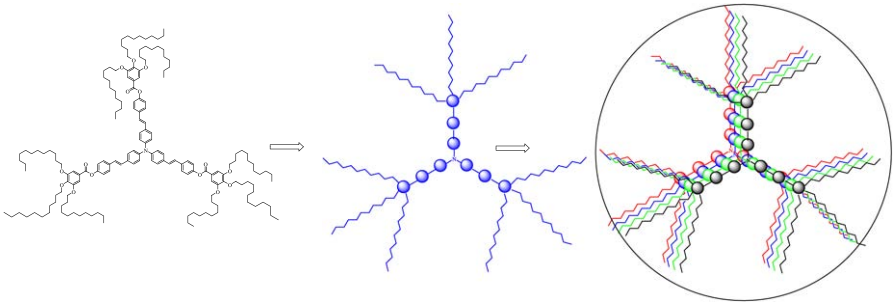
a: R= C_6H_5-CH_2- b: R = nC_3H_7 c: R = nC_6H_{13} d: R = $nC_{10}H_{21}$

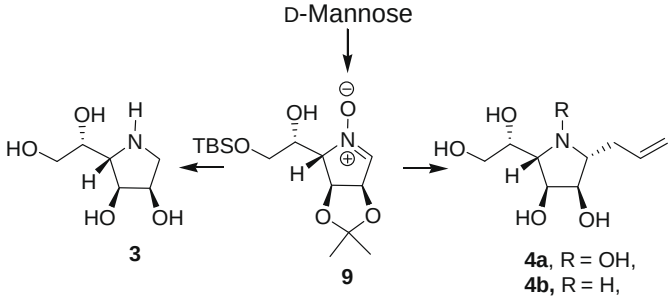




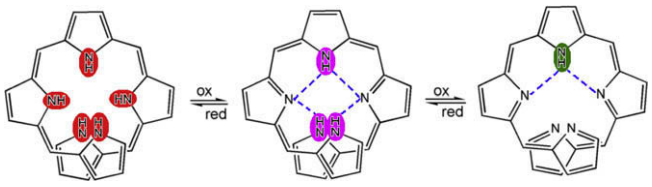
2 R = *n*-octyl **3** R = *n*-octyl

New hybrid compounds composed of thiophene and π-extended tetrathiafulvalene units were synthesized, and their electrochemical and spectroscopic properties were investigated.

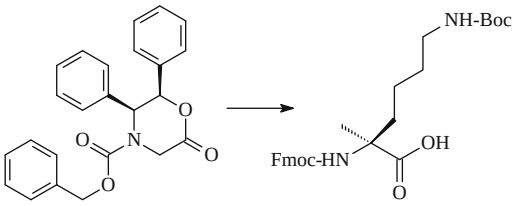




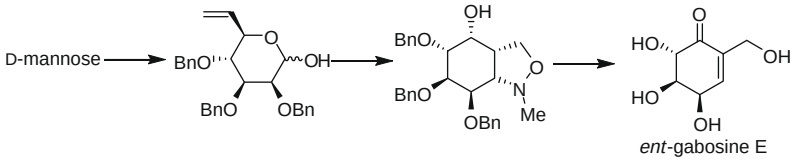
3 **9** **4a**, R = OH, **4b,** R = H,

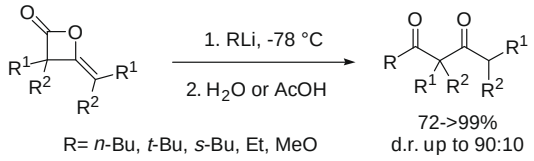


The structures of fully conjugated *meso*-2,6-dichlorophenyl pentapyrrin exhibiting different π-conjugated networks were studied using crystallographic as well as observed and calculated spectral data.



A stereoselective and efficient synthesis of (*L*)-Fmoc-α-Me-Lys(Boc)-OH is reported.





The reaction of ketoketene dimers with organolithium reagents afforded 1,3-diketones in good to excellent yields, and with good diastereoselectivity in some cases.

*Corresponding author
Supplementary data available via ScienceDirect

COVER

First asymmetric total synthesis of fomitellic acid B has been accomplished. The highly oxygenated AB ring system, with all requisite chiral centers, is stereoselectively constructed by means of titanium(III)-mediated radical cascade cyclization of epoxypolyene.
Tetrahedron Letters **2009**, 50, 6764–6768.

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