ELSEVIER

Tetrahedron Letters

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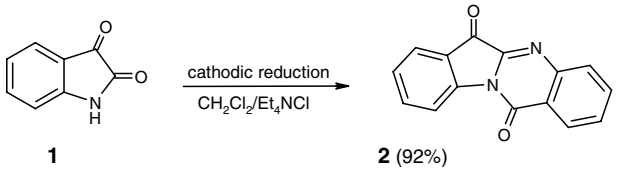
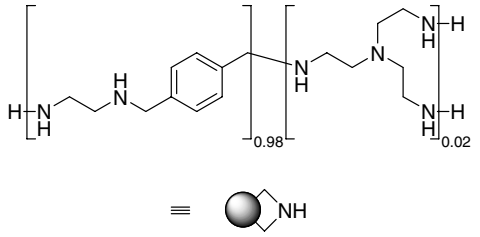
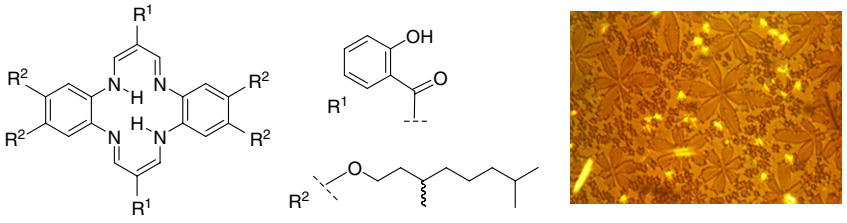
Contents

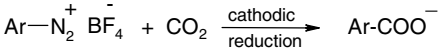
COMMUNICATIONS

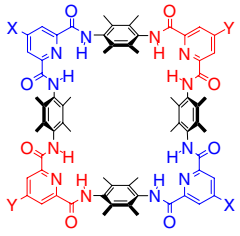


1 **2** (92%)

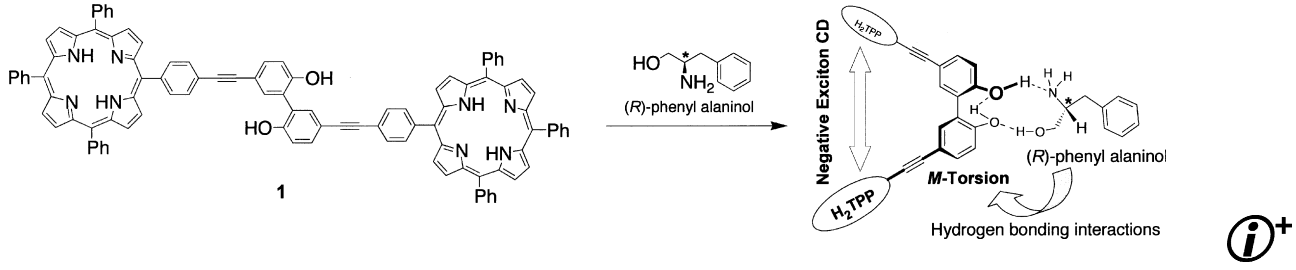


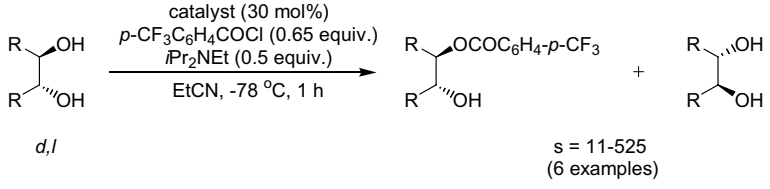


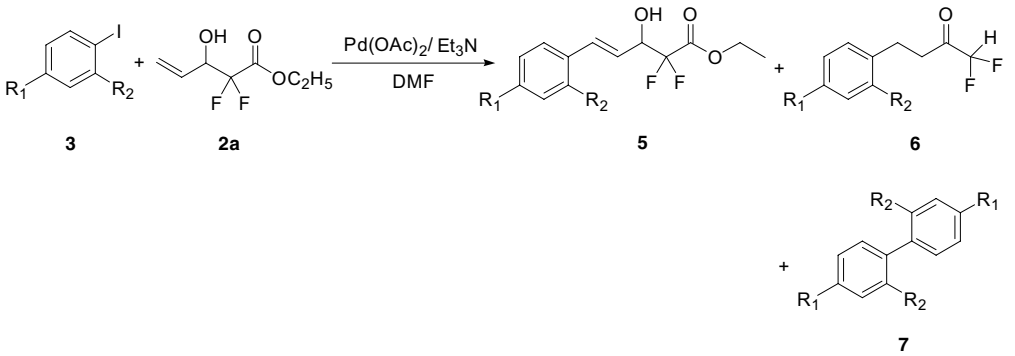


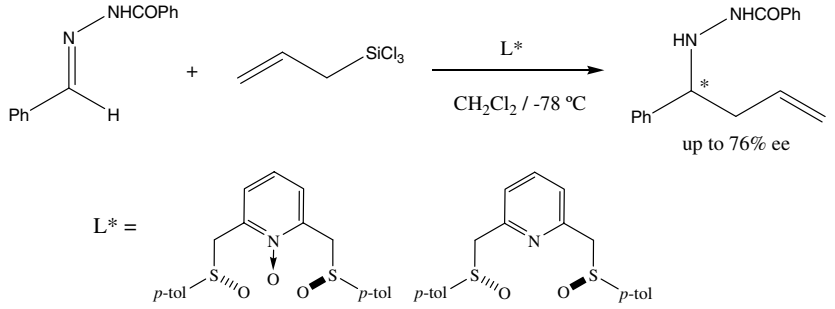


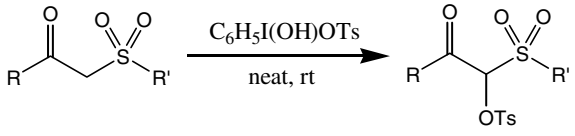
A series of large, 44-membered macrocycles were efficiently synthesized and characterized, which have two exclusive binding modes in a diagonal manner.



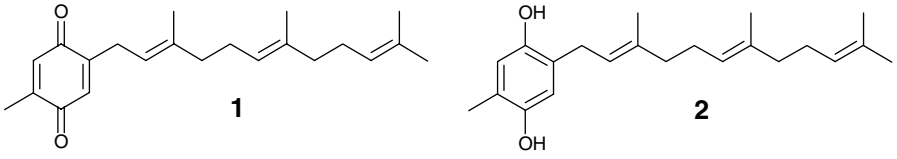




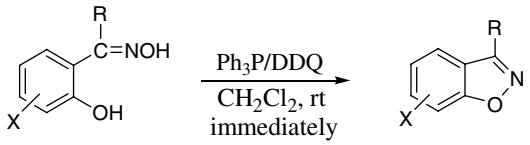




A facile, general and high yielding protocol for the synthesis of novel α-tosyloxy β-keto sulfones is described utilizing relatively non-toxic, [hydroxy(tosyloxy)iodo]benzene, under solvent-free conditions at room temperature.

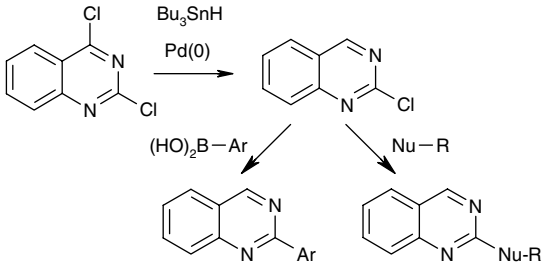


Marine fungal metabolites **1** and **2** were synthesized from 2-methyl-1,4-benzoquinone in four and five steps, respectively.

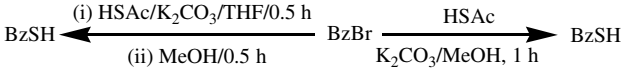


90-95%

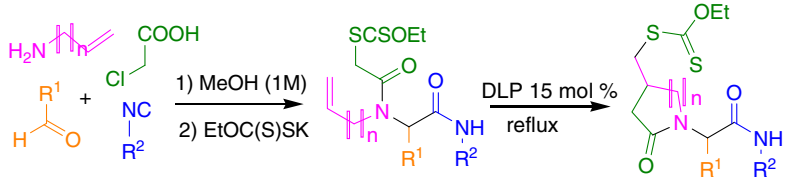
R = H , alkyl, aryl
X = H, CH_3, C_2H_5, OH, OCH_3, Br



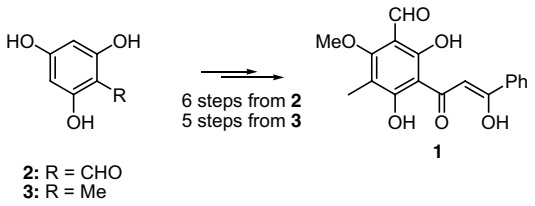
A Stille-type coupling using tributyltin hydride as a mild and selective way of converting 2,4-dichloroquinazoline to 2-chloroquinazoline and the reactivity of this heterocyclic building block is discussed.

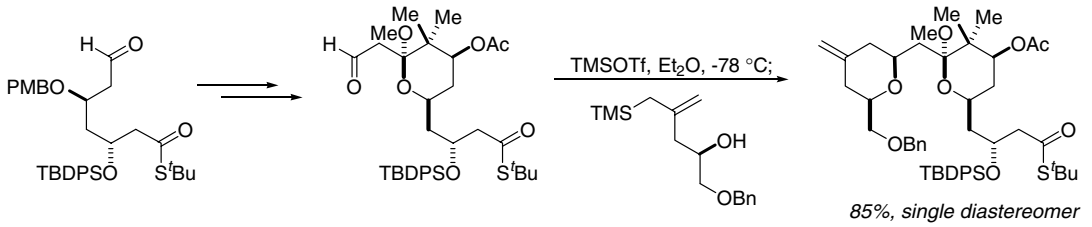


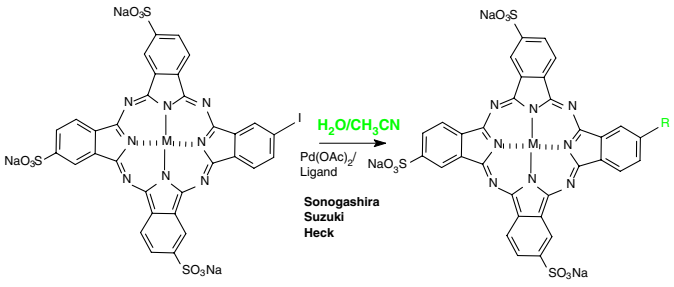
Very mild and efficient methods have been developed to synthesize benzylic thiols from benzylic bromides at room temperature to give 94–99% yield within 1 h under N_2.

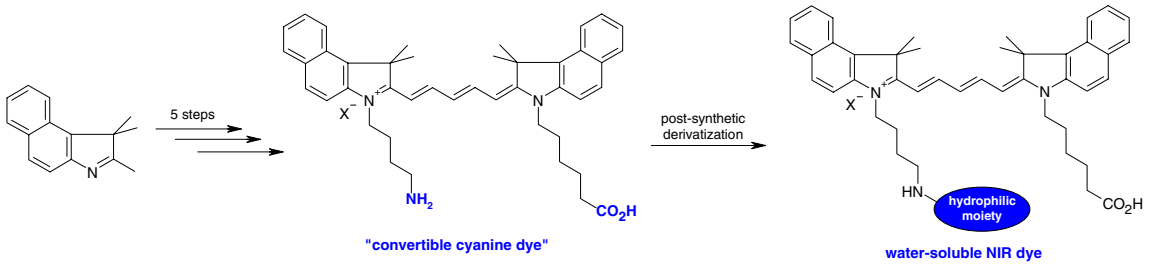


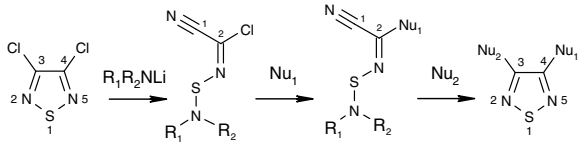
A new preparation of lactams by a two step Ugi/xanthate radical cyclization procedure.





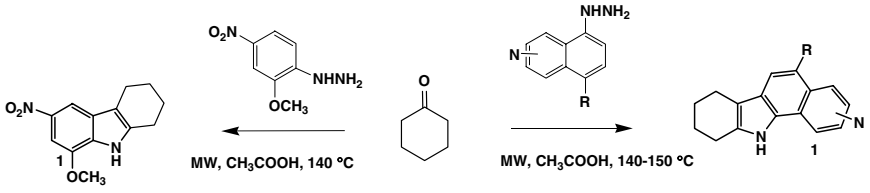




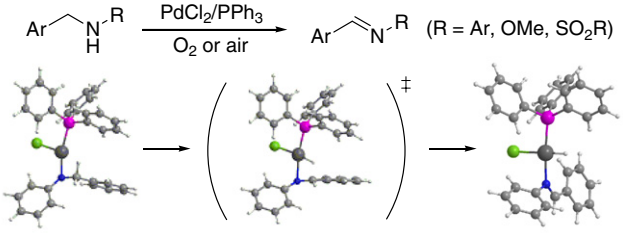


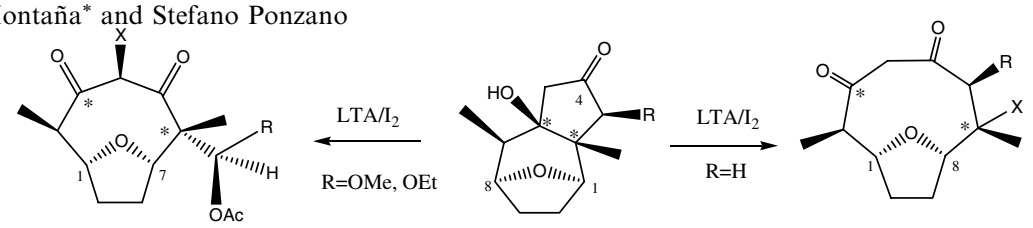
1 R_1, R_2= Alk or $(Alk)_3Si$ Nu_1, Nu_2 = RO^-, RS^-, R^- or $R2N^-$

We have developed a new synthesis of 3,4-disubstituted-1,2,5-thiadiazoles. The methodology is based on the ring opening of readily available 3,4-dichloro-1,2,5-thiadiazole with metal amides to afford a stable synthon, which is then transformed into the 3,4-disubstituted-1,2,5-thiadiazole derivatives via two consecutive reactions with O-, S-, N- or C-nucleophiles.

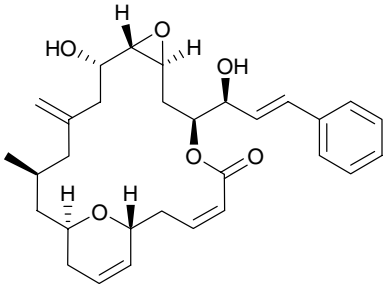


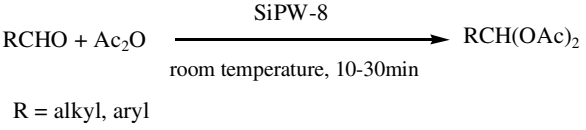
Optimization procedures of process variables, power, temperature, and irradiation time are reported in detail for microwave Fischer indole synthesis of substituted tetrahydrocarbazole and tetrahydropyridocarbazole derivatives.



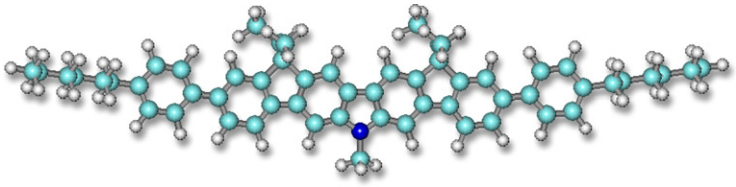


The treatment of derivatives on C3 of 6-hydroxy-2,7-dimethyl-11-oxatricyclo[6.2.1.$0^{2,6}$]undecan-4-one with lead tetraacetate and iodine, gave, in a good yield, 1,7-epoxycyclononanes or 1,8-epoxycyclodecanes, depending on the type of substitution in α to the ketone on C4 of substrates.

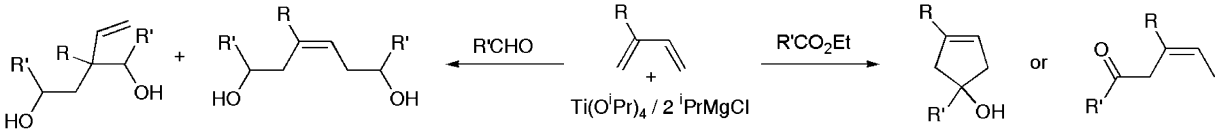




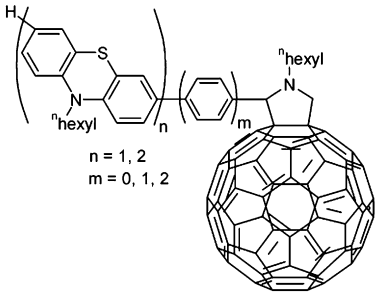
Acylals were efficiently prepared from aliphatic and aromatic aldehydes using mesoporous silica with heteropolyacid encapsulated into their framework (SiPW-8) as catalysts by a solvent-free procedure.



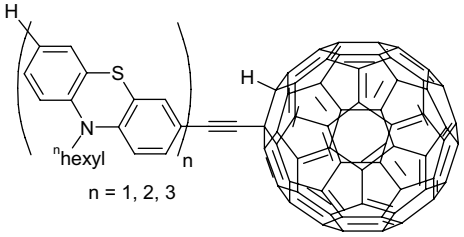
In this letter we describe the synthesis of the first liquid crystalline bisindenocarbazole derivative. The novel bisindenocarbazole exhibits a broad nematic mesophase between 180 and 250 °C, which was characterized by polarizing microscopy and small angle X-ray scattering. The material shows an excellent electrochemical stability and a strong blue fluorescence with a quantum yield of 49% in solution.

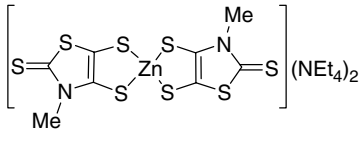


(Oligo)phenothiazine–C_{60}-dyads are synthesized by a three-component condensation–cycloaddition. Cyclic voltammetry shows that donor and acceptor are decoupled in the ground state, whereas upon UV excitation a considerable fluorescence quenching is observed.

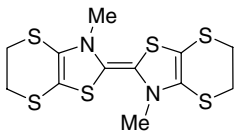


(Oligo)phenothiazine-ethynyl-hydro-C_{60} dyads are synthesized by addition of the corresponding acetylides to C_{60} followed by protonation. Cyclic voltammetry shows that donor and acceptor are decoupled in the ground state, whereas upon UV excitation considerable fluorescence quenching is observed.



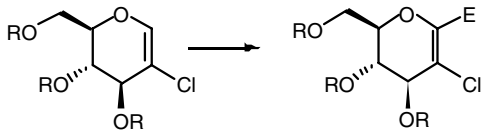


[NEt4]$_2$[Zn(Me-thiazdt)$_2$]

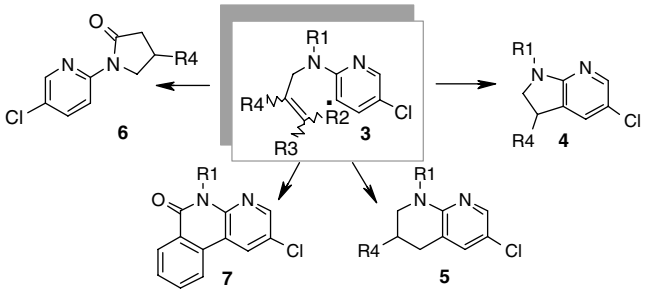


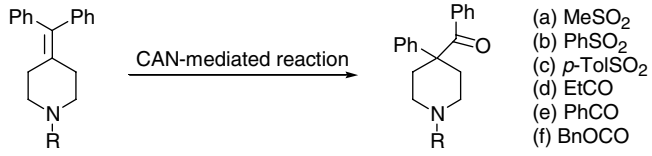
BEDT-DTDAF

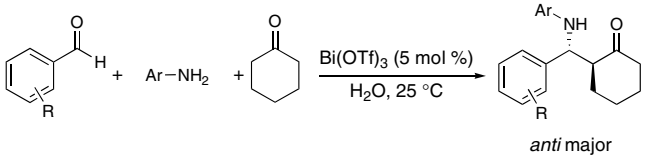
A simple and efficient approach to *N*-methyl-1,3-thiazoline-2-thione-4,5-dithiolate, easily isolated as its zinc dithiolene complex, has been developed. The reactivity of this dithiolene complex as a nucleophilic dithiolate synthon and as a precursor of the air sensitive electron rich olefine, the bis ethylenedithiodithiadiazafulvalene (BEDT–DTDAF), is also described.

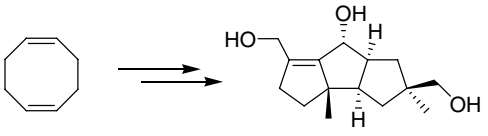


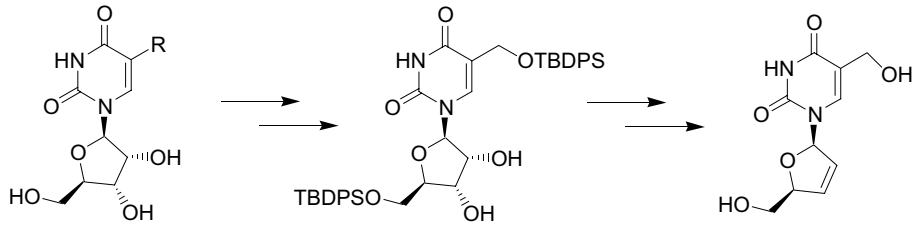
The metallation of 2-chloroglucals is described.



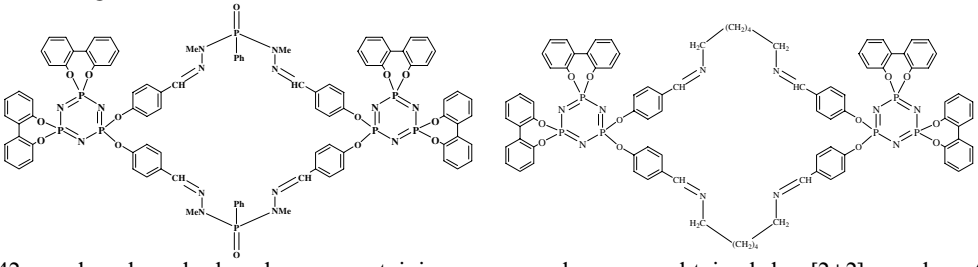




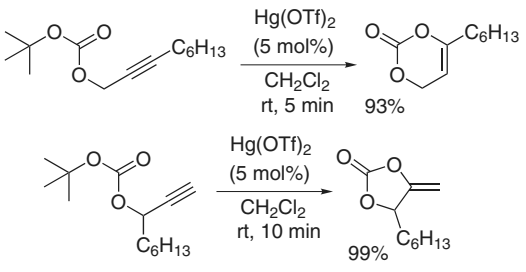


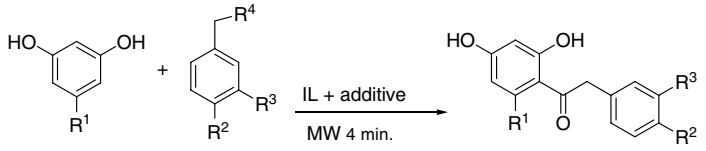


R = H, CH_3 **1**

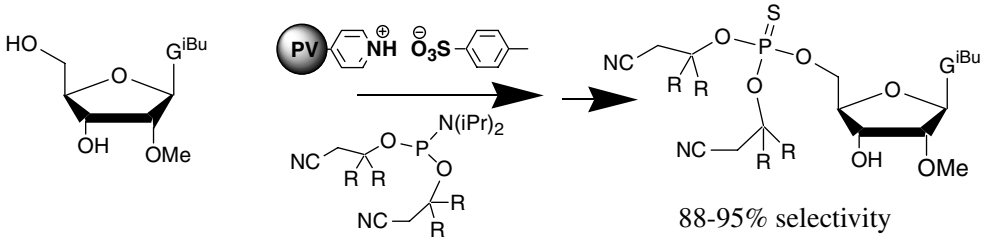


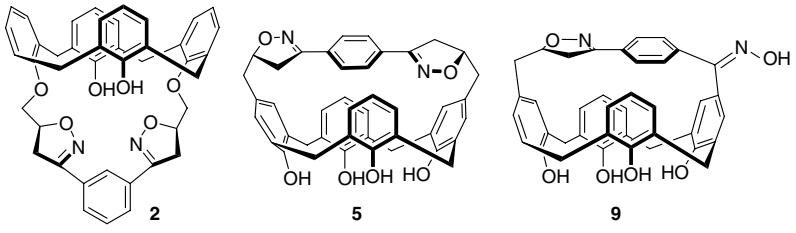
Novel 36- and 42-membered cyclophosphazene-containing macrocycles were obtained by [2+2] condensation reactions of $N_3P_3(O_2C_{12}H_8)_2[–O–C_6H_4–p\text{-}CHO]_2$ with $PhP(O)[N(Me)NH_2]_2$ or 1,6-diaminohexane.

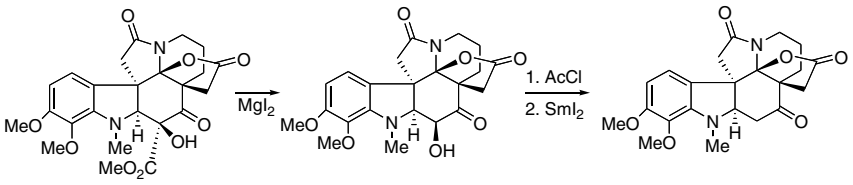


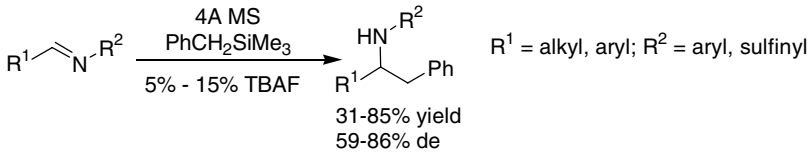


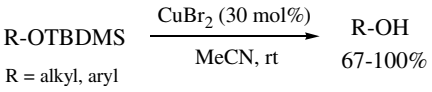
A microwave-promoted synthesis of polyhydroxydeoxybenzoins and -phenylpropanones has been developed, using a bis{(trifluoromethyl)sulfonyl}amine ($HNTf_2$) or $BF_3{\cdot}OEt_2$ in an ionic liquid solvent.

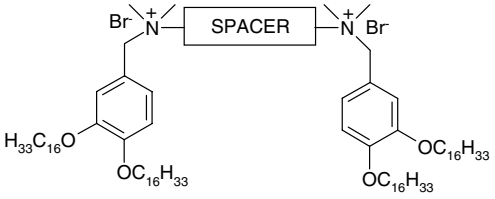




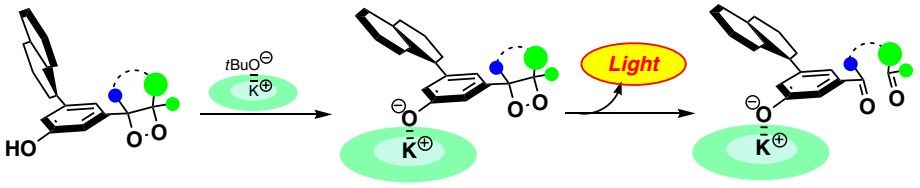


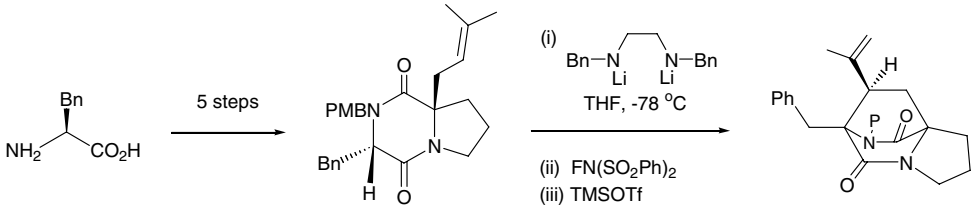


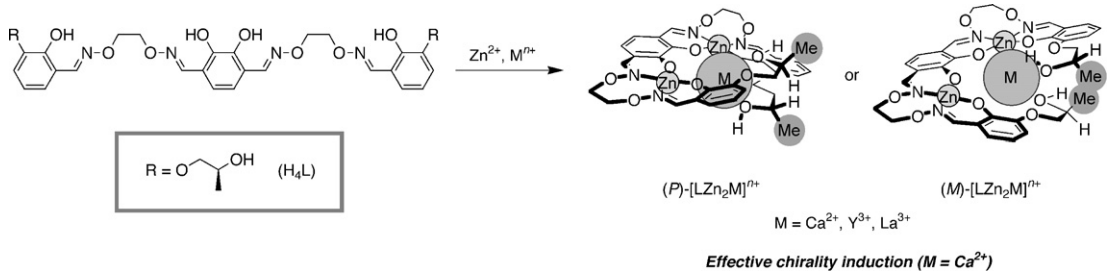


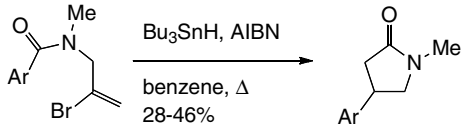


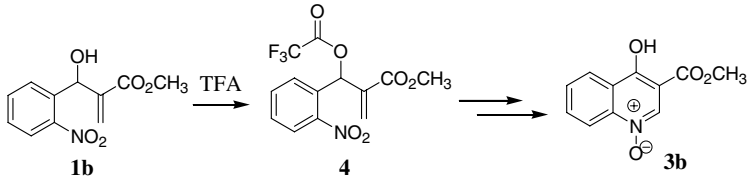
Novel dimeric cationic lipids with an aromatic anchor between the hydrocarbon chains and headgroup bearing different spacers have been synthesized.



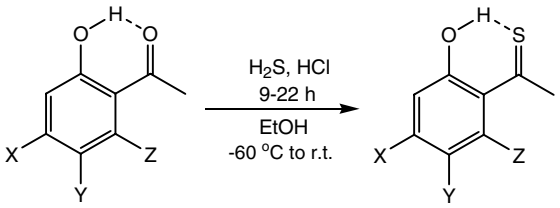


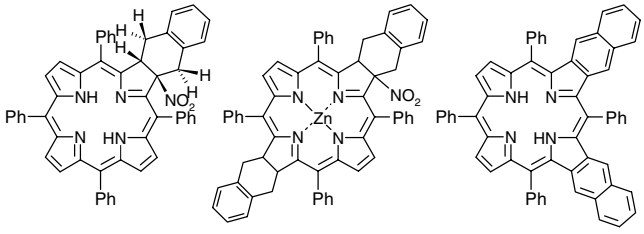






Data collected from ESI-(+)-MS(/MS) monitoring and probed by experiments in solution reveals the participation of a new key intermediate (**4**) in the mechanism of formation of *N*-oxide hydroxyquinolines (**3**) from *o*-nitrophenyl Baylis–Hillman adducts (**1**).





β-Nitro-*meso*-tetraphenylporphyrin and the 2,7-dinitro-derivative, or their zinc complexes, react with *ortho*-xylylenes, giving rise to chlorins, bacteriochlorins or isobacteriochlorins.

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ⓘ+ Supplementary data available via ScienceDirect

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