ELSEVIER

Tetrahedron Letters

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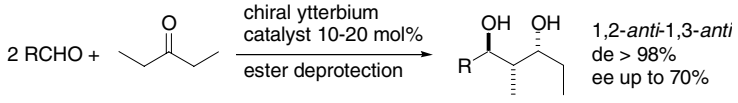
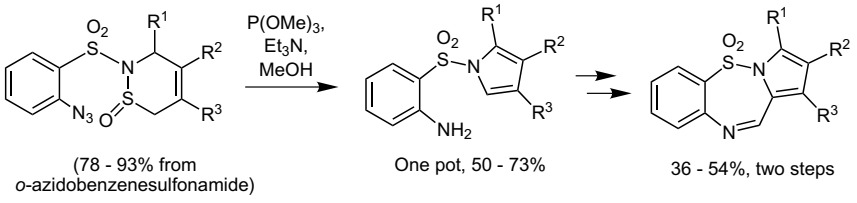
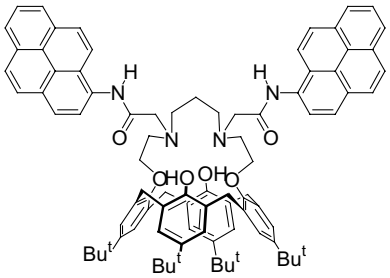
Contents

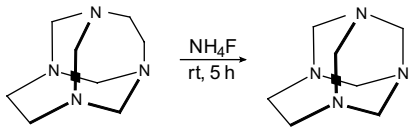
COMMUNICATIONS

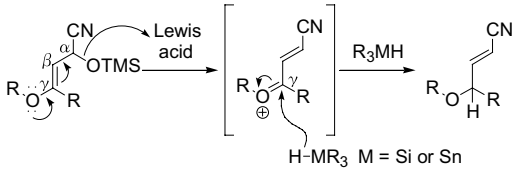




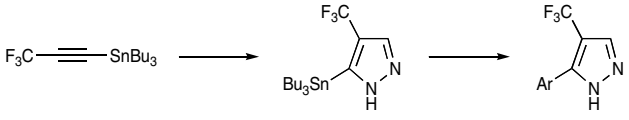


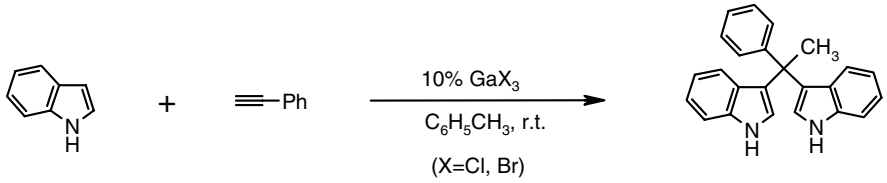
A new ionophore having two pyrenylacetamide moieties based on the *p-tert*-butylcalix[4]arene-diaza-crown ether has been prepared. Bis(pyrenyl) derivative was found to exhibit selective ON–OFF type sensing behavior toward Hg^{2+} ions over other representative transition and heavy metal ions in pyrene monomer and excimer emission regions.



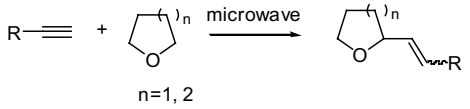


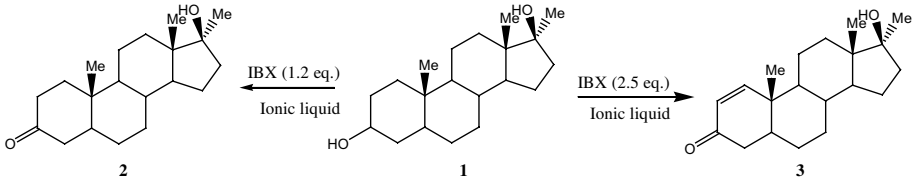
A novel branched ether formation reaction was developed and applied to the synthesis of the EF-ring segment of ciguatoxin.

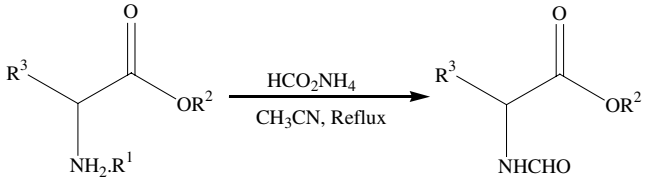




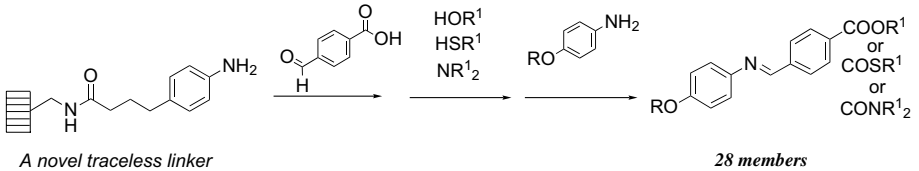
Indoles undergo smooth coupling with phenylacetylene in the presence of 10 mol % of gallium(III) chloride or gallium(III) bromide under mild conditions to afford the corresponding 1,1-bis(1*H*-3-indolyl)-1-phenylethanes.

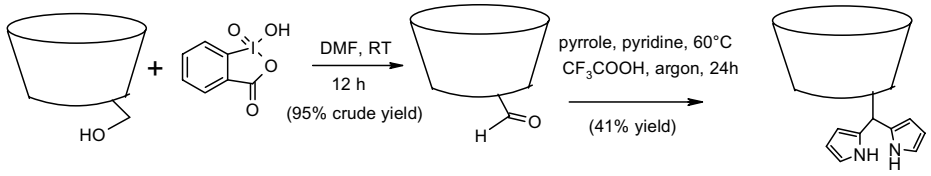


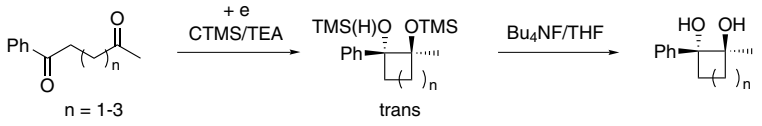


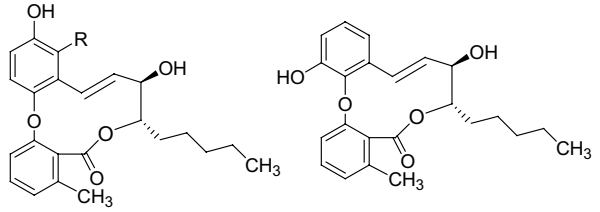


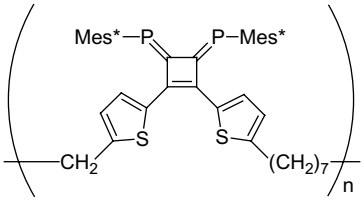
Several amino acid ester hydrochlorides were reacted with ammonium formate to give *N*-formyl amino acid esters in good yields.

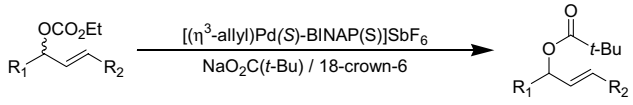


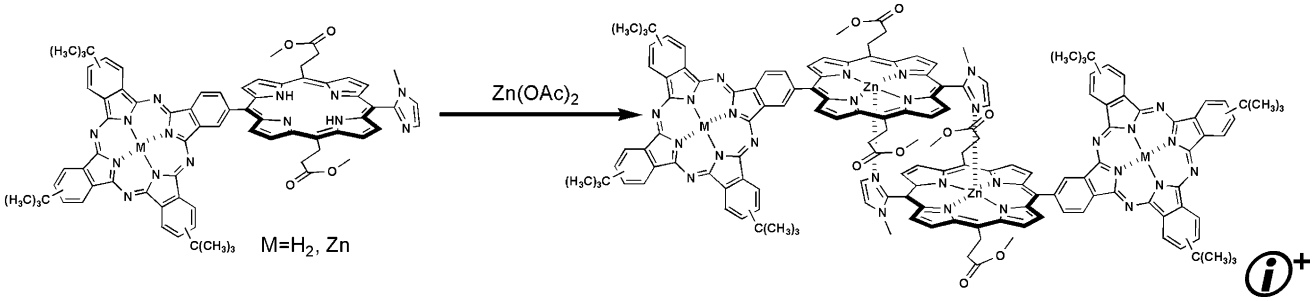


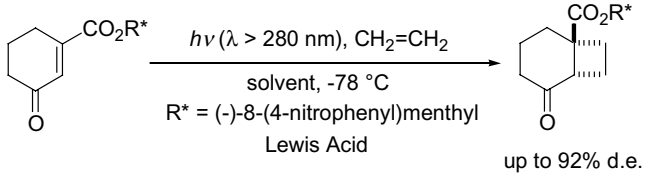


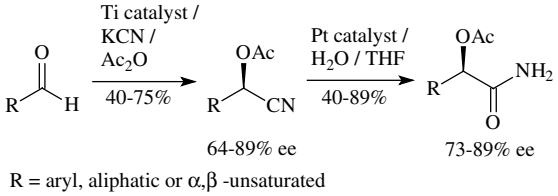




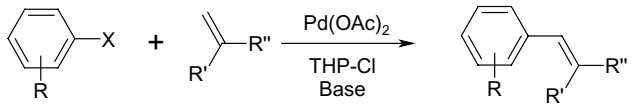


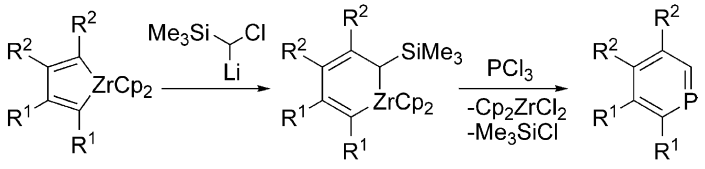


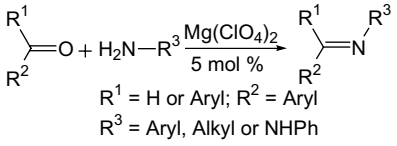


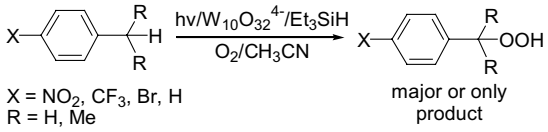


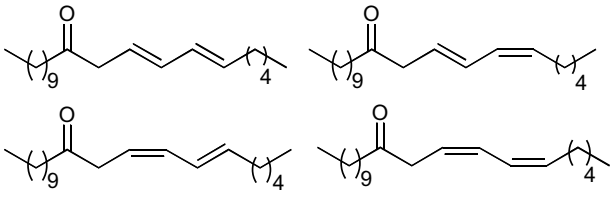
Treatment of aldehydes with a titanium (salen) based catalyst, potassium cyanide and acetic anhydride gives non-racemic cyanohydrin acetates, which undergo chemoselective hydrolysis to α-acetoxy amides when treated with a platinum phosphinito catalyst.



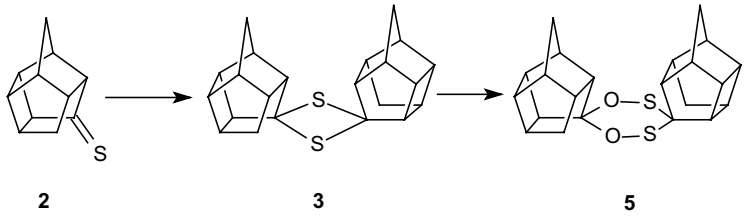


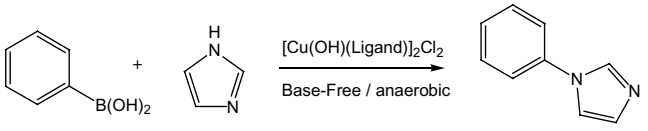




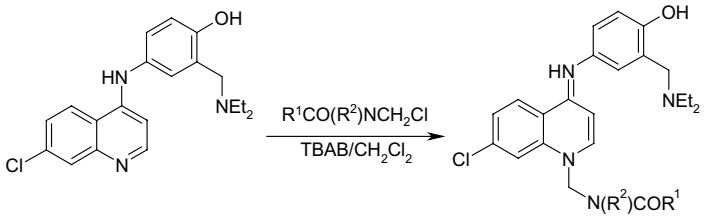


All four isomeric 6,8-heneicosadien-11-ones were synthesised using a Suzuki-coupling strategy.

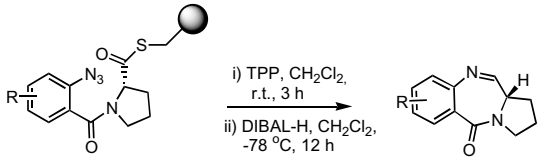


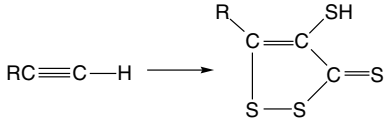


The Cu(II) catalysed coupling of arylboronic acids with imidazole can be performed at ambient temperature without the need for base or dioxygen. The presence of water however is essential for the reaction to proceed.

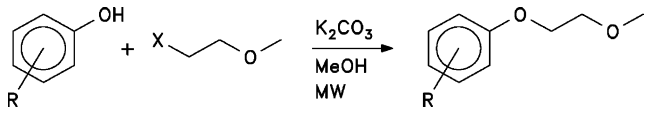


Alkylation of amodiaquine affords novel *N*-Mannich-base derivatives that display high activity against the multi-drug resistant *Plasmodium falciparum* strain Dd2.

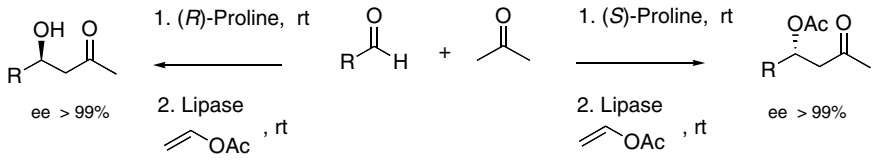


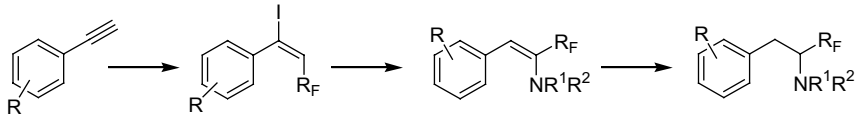


Sequential treatment of terminal alkynes with *n*-butyllithium, carbon disulfide and elemental sulfur gives 4-mercapto-1,2-dithiole-3-thiones in good yields after acidic workup.

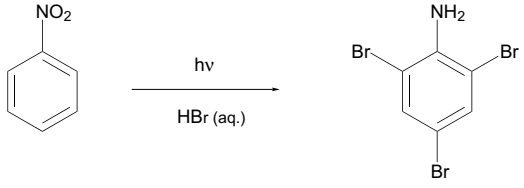


Microwave-assisted alkylation of phenols can be achieved within short reaction times under mild conditions using K_2CO_3 as a base, in methanol as a solvent. The method is suitable for base sensitive compounds or partially water-soluble substrates.

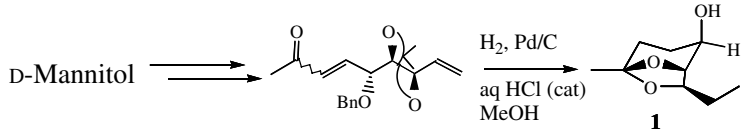


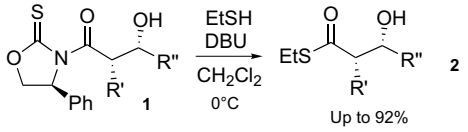


A general method for the synthesis of fluoroalkylated amphetamine derivatives is presented starting from commercially available arylacetylenes. The method allows the preparation of primary, secondary, and tertiary amines.

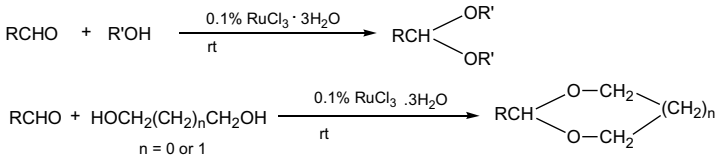


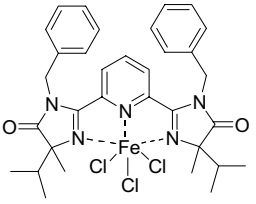
Nitrobenzene and three derivatives (3-CO_2H, 3-OH, and 4-OH) give tribromoanilines when irradiated in hydrobromic acid.

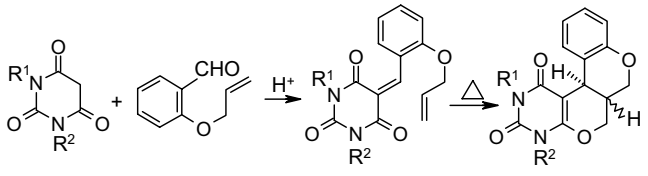


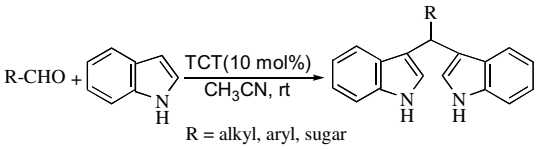


N-Acyl-β-hydroxy-4-phenyl-oxazolidinethiones could be rapidly converted into thioesters in high yields by treatment with EtSH/DBU at 0 °C.

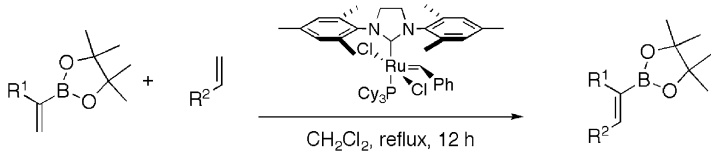




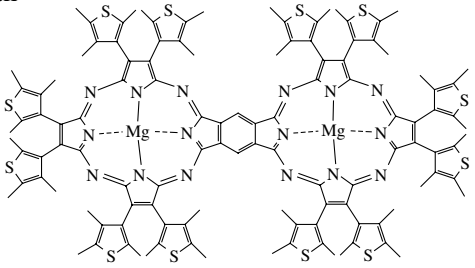




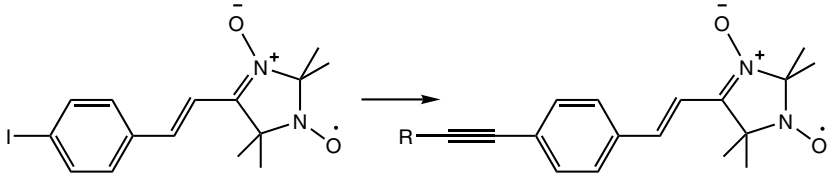
A practical and efficient electrophilic substitution reaction of indoles with aldehydes using catalytic trichloro-1,3,5-triazine (10 mol%) in acetonitrile to furnish the corresponding bis(indolyl)methanes in excellent yields is reported.

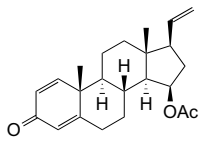


Tri-substituted vinyl pinacol boronates are synthesized using cross-metathesis of α-substituted vinyl boronates. The reactions proceed with moderate yields and high *Z*-selectivity when R1 = methyl. When R1 is larger than a methyl group, yields and *Z*-selectivity are moderate at best, and the reactions are highly substrate dependent.



A simple synthesis and the near-infrared luminescent changes and photochromism of a new coplanar binuclear porphyrazine bearing six bis-(trimethylthiophenyl) photochromic units at the periphery are described.





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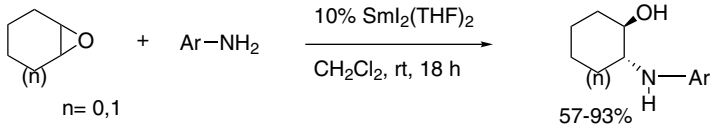
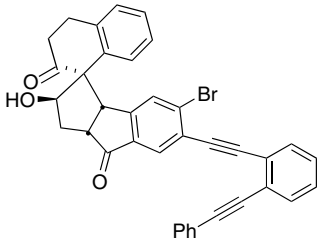
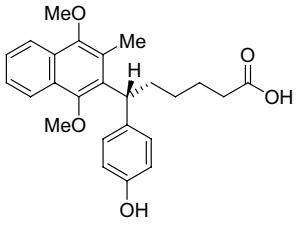
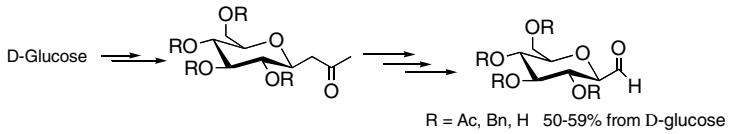
The isolation and characterization of two new pregnanes (i.e., compound **1**), together with previously found metabolites, are reported from the Indopacific octocoral *Carijoa* sp. A strong activity as inhibitors of mitochondrial electron transport system of mammalian cells was found for the new compounds.

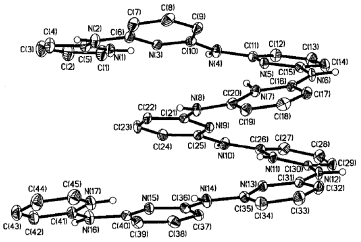


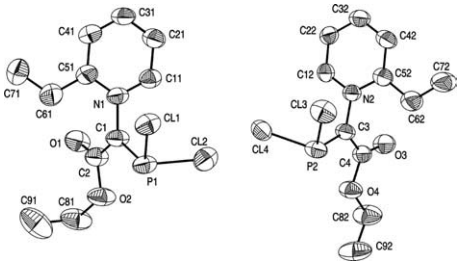


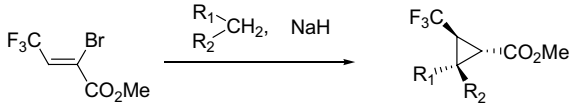
Enediyne chimeras containing a photoactivated warhead coupled to either a porphyrin or nucleic acid binding motif were prepared via Pd coupling methodology. Photoactivation was achieved in both cases, paving the way for application in photodynamic therapy.

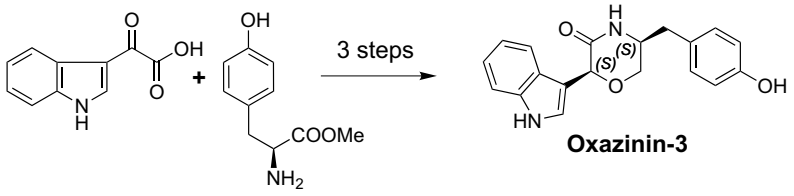


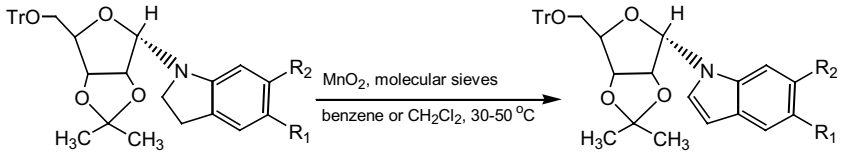


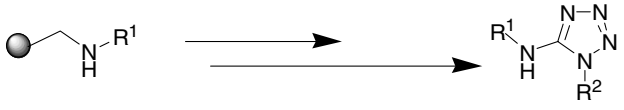


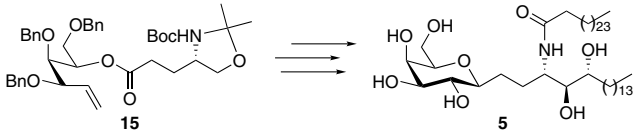


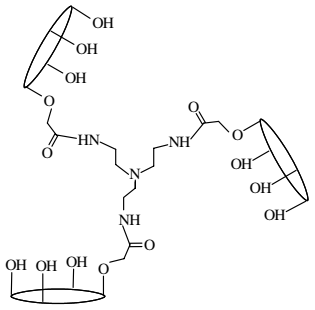


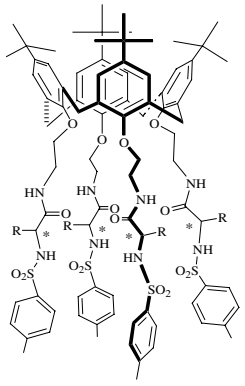


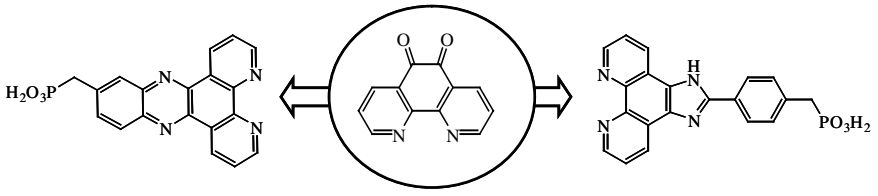


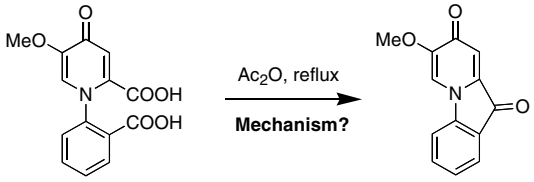












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*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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