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Tetrahedron Letters

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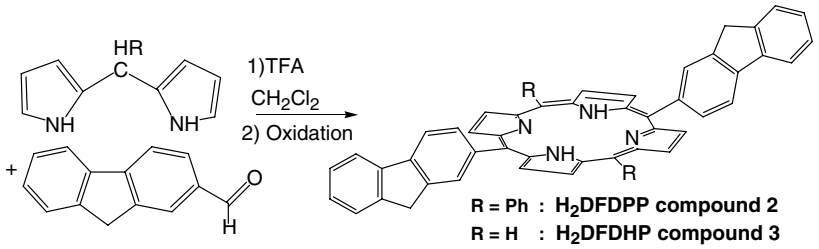
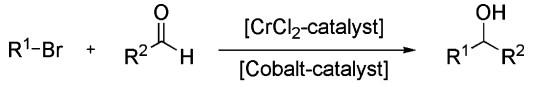
Contents

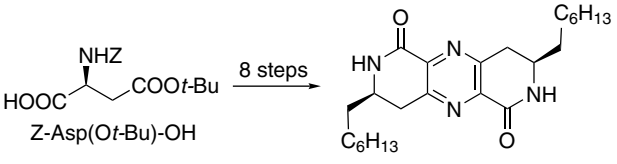
COMMUNICATIONS



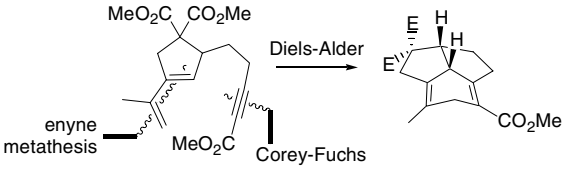


R^1 = Arylalkyl, Hydroxyalkyl, Carboxyethylalkyl
R^2 = Ethyl, Phenyl

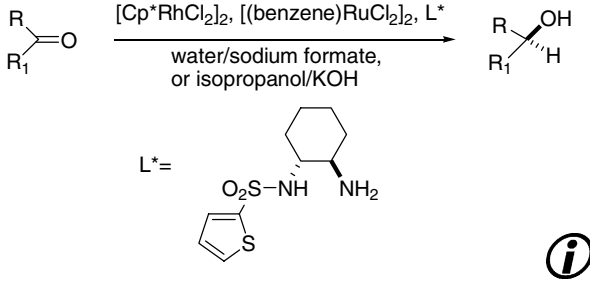
Alkylchromium reactions: The reaction of functionalized alkylhalides under mild cobalt and chromium catalysis opens new perspectives for highly chemoselective C–C-couplings with complex substrates, for example, in total synthesis.

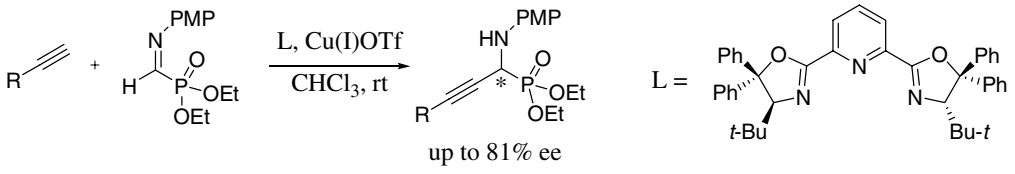


An analogue of barrenazine A was prepared in eight steps with a 29% overall yield, from protected aspartic acid.

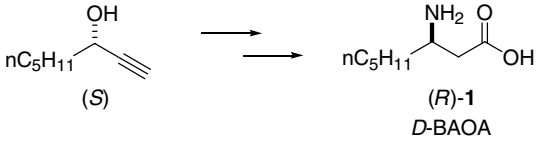


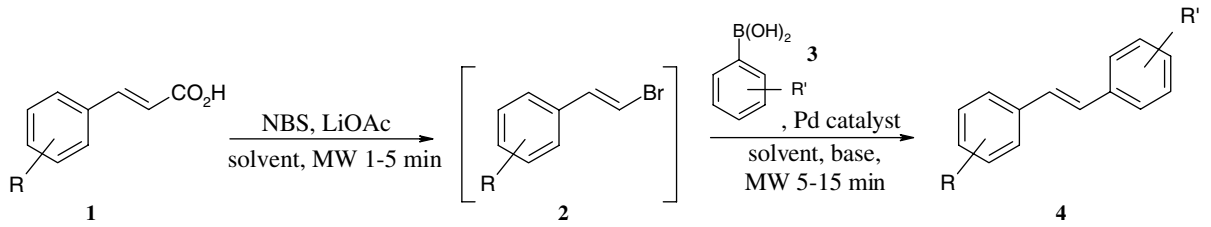
Monosulfonamide ligands with heteroatom/heterocyclic systems were derived from (1*R*,2*R*)-cyclohexane-1,2-diamine and used in the ATH of acetophenone.



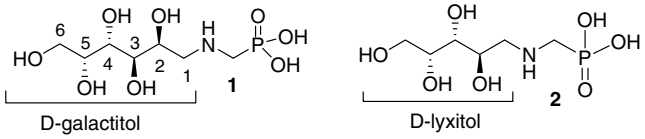


Enantioenriched α-aminopropargylphosphonates have been synthesized for the first time by using a Cu(I)–pybox complex.

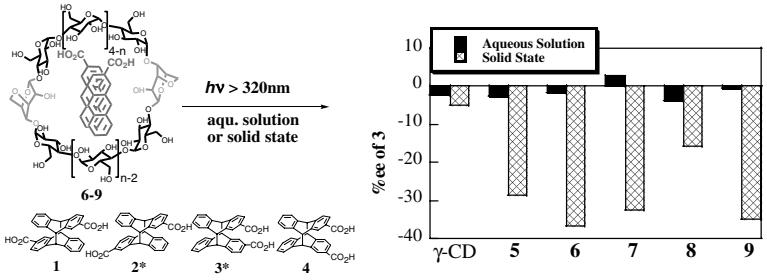


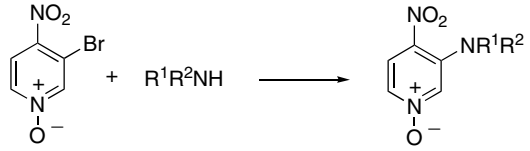


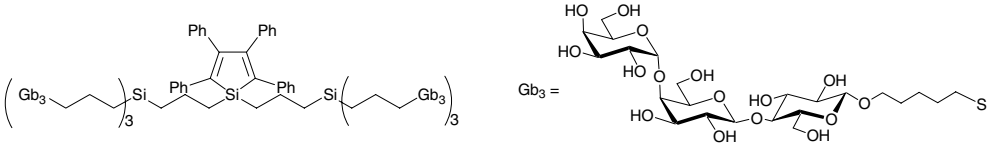
This Letter describes an efficient one-pot synthesis of *trans*-1,2-diarylethenes from cinnamic acids using microwave irradiation.

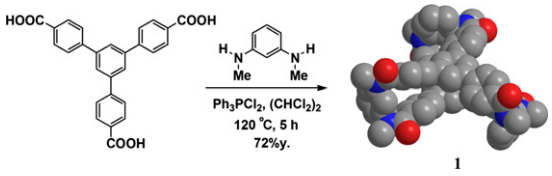


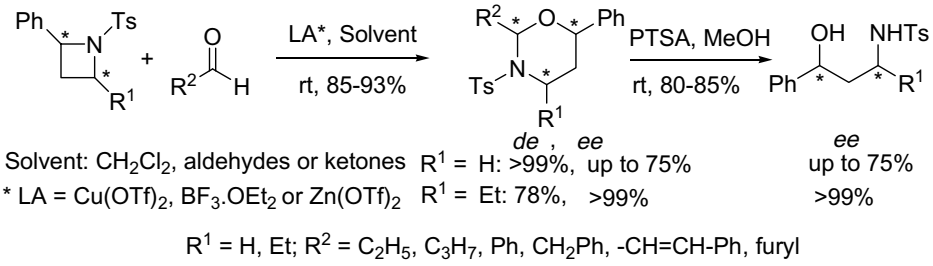
Acyclic alditol-aminophosphonates **1** and **2** were designed as mimics of high energy intermediates of the UGM catalyzed isomerization. Interestingly, the D-lyxitol-aminophosphonate **2** displayed better inhibition properties than **1**.

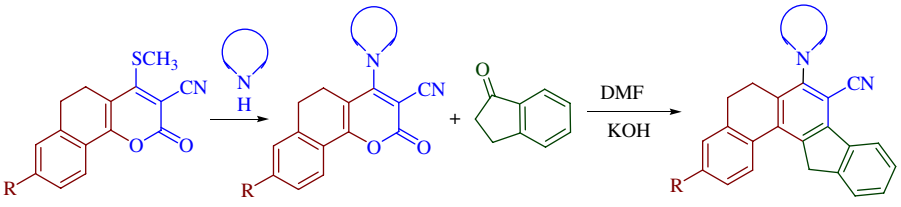


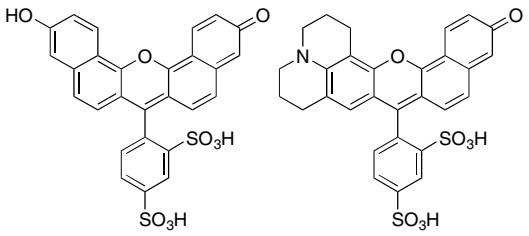


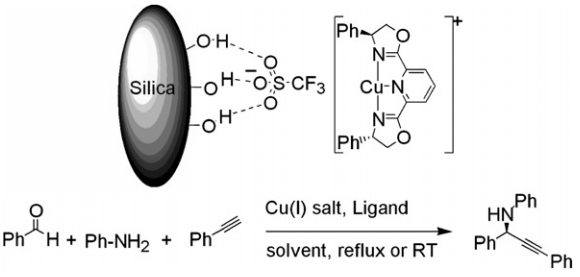


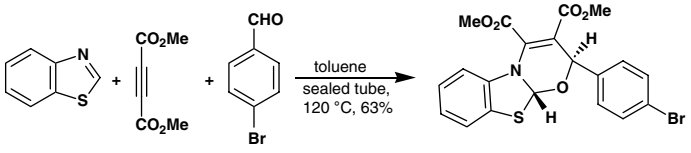


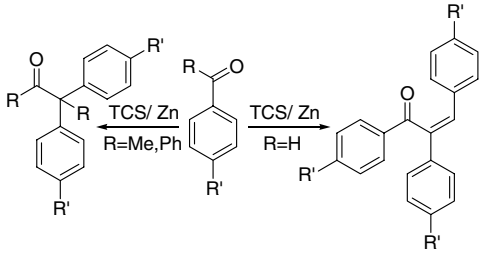




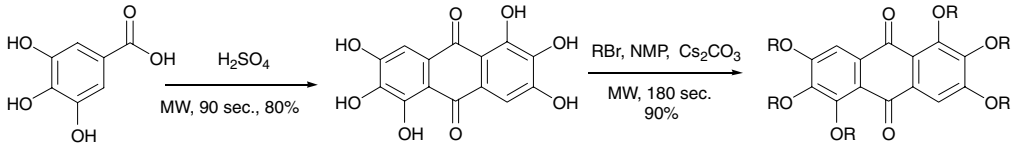




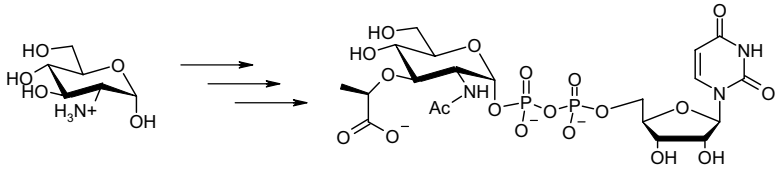


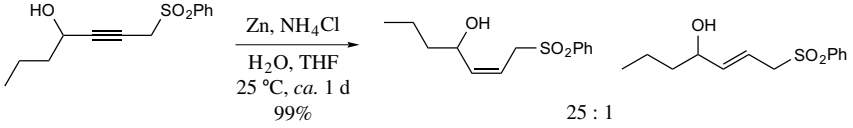


Reductive trimerization of aromatic aldehydes to 1,2,3-triaryl-2-propen-1-ones as well as tandem reductive coupling-rearrangements of aryl ketones to pinacolone analogues were efficiently achieved using $SiCl_4$–Zn (TCS/Zn) at room temperature.

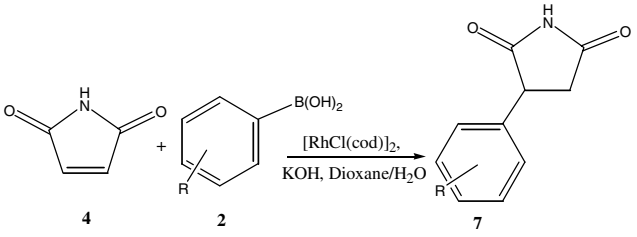


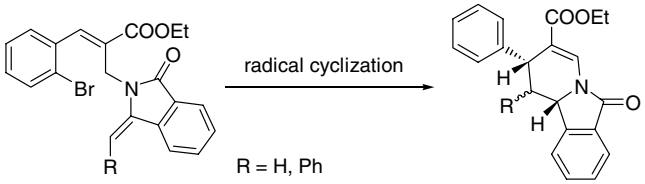
Rufigallol and its novel room-temperature discotic liquid crystalline derivatives have been prepared in high yield using microwave heating.

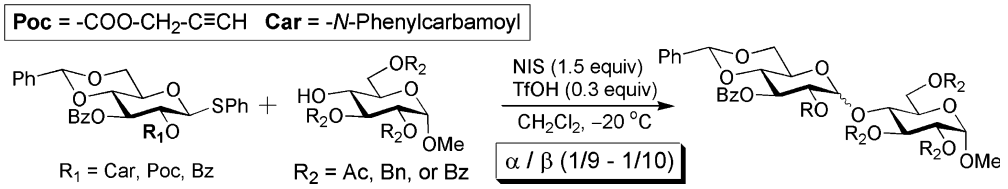


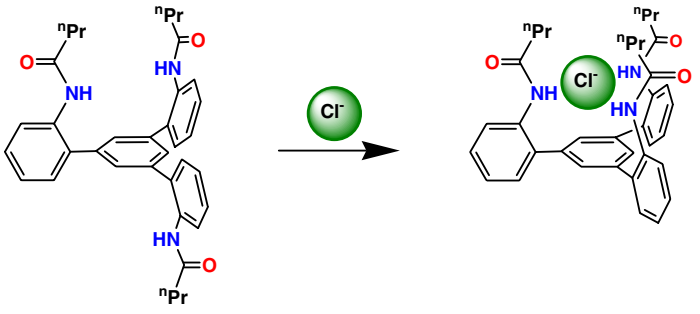


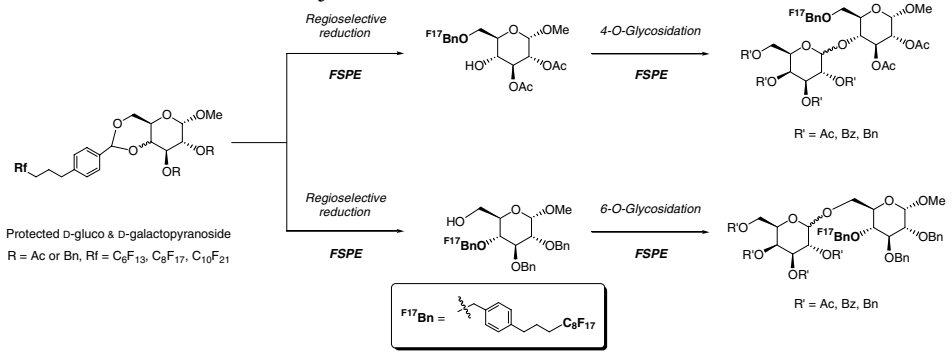
Various boronic acids were treated with a rhodium(I) catalyst enabling their 1,4-conjugate addition to unprotected maleimide. The scope of the reaction was explored to include both electron-rich and electron poor boronic acids. These reactions were also performed in the microwave resulting in reduced reaction times and improved efficiencies. Additionally, substrates that were recalcitrant under conventional conditions were successfully reacted under microwave conditions. The reaction worked satisfactorily with boronic acids having a free OH or NH group.

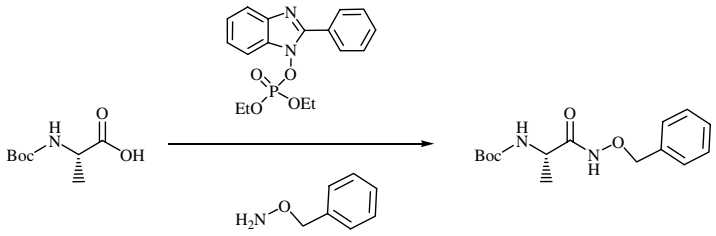


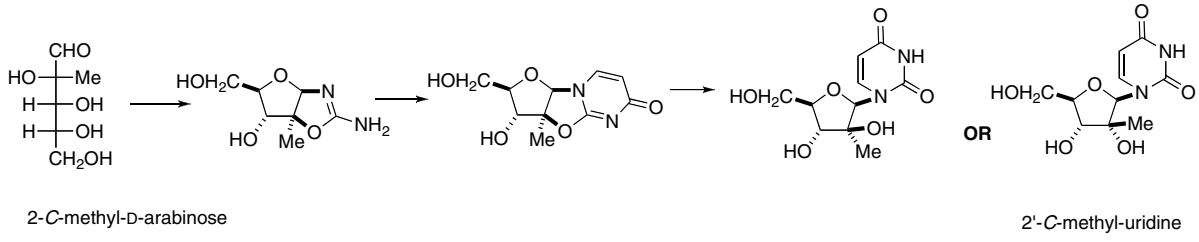


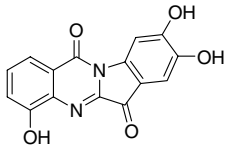












A new indoloquinazoline alkaloid, ophiuroidine, was isolated from the Caribbean ophiuroid *Ophiocoma riisei*. Its structure was determined as 4,8,9-trihydroxyindolo[2,1-*b*]quinazoline-6,12-dione from spectroscopic data. Ophiuroidine is the first example of an indoloquinazoline alkaloid found in a marine invertebrate.

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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