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Tetrahedron Letters

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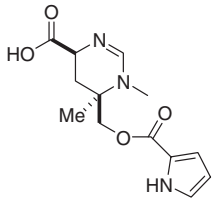
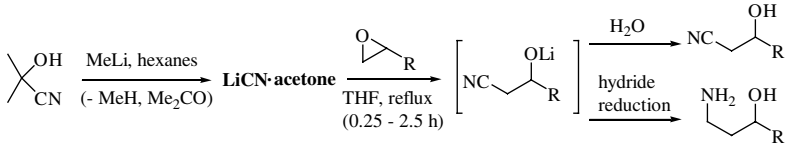
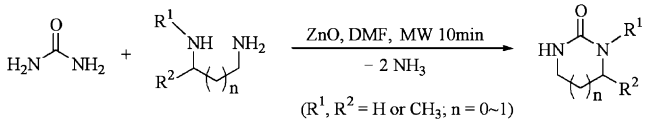
Contents

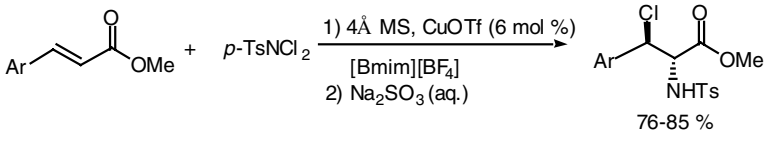
COMMUNICATIONS

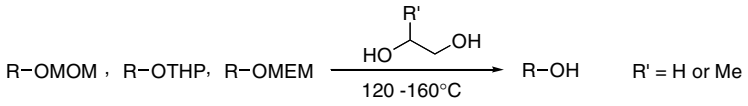




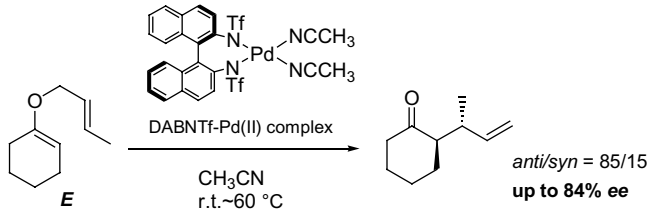


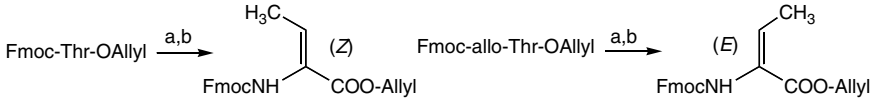
A MW-assisted direct synthesis of cyclic ureas has been developed that proceeds expeditiously in the presence of ZnO thus shortening its reaction time; the process also eliminates the formation of byproducts when compared to the traditional methods involving conventional heating.



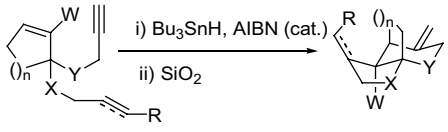


Heating acetals with ethylene glycol causes the deprotection of acetal type protecting groups.

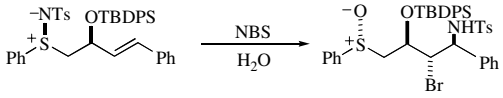




a) *m*-^{t}BuOCO-C_6H_4-SeCN, Bu_3P / pyr. b) H_2O_2 / THF

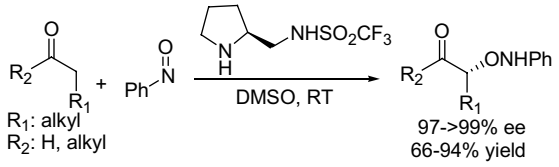


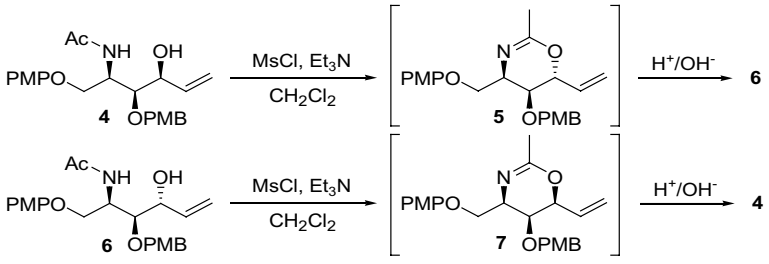
A facile route to tricyclo[4.3.*n*.0^{1,5}]alkane skeletons from conjugated cyclic enones was developed through tandem free radical cyclization reaction sequence involving the cyclopropylmethyl radical mediated rearrangement. The scope and limitation of the reaction was investigated.

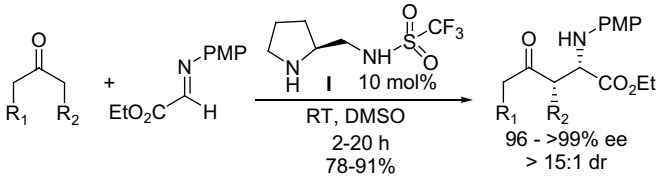


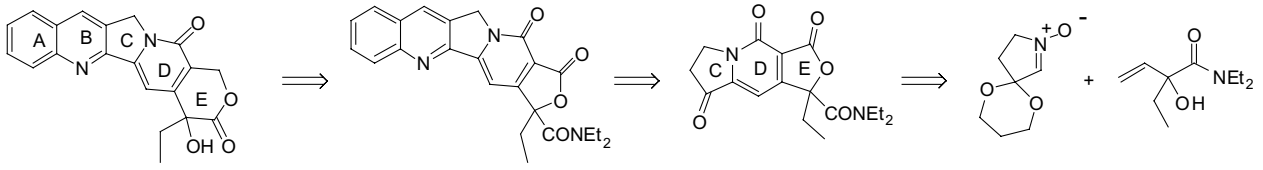
and other examples

Stereospecific transformation of sulfilimines to sulfoxides and regio- and stereoselective transformation of alkenes to bromosulfonamides is disclosed.

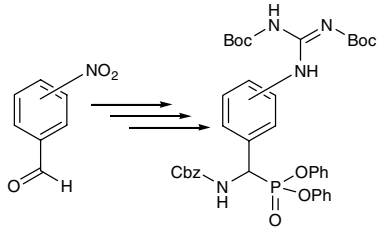




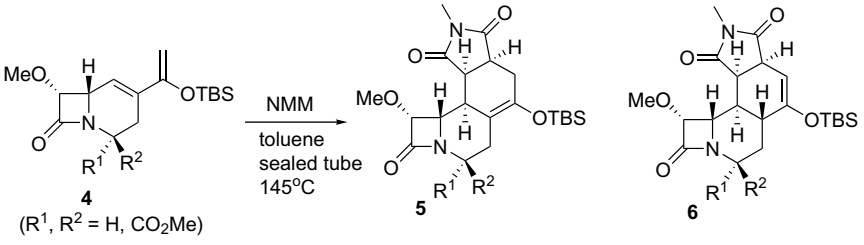




A novel synthesis to camptothecin is described. A Friedlander condensation of *o*-aminobenzaldehye with tricylclic ketone affords camptothecin after further elaboration. Tricyclic ketone is prepared via a route employing a [3+2] nitrone cycloaddition and an intramolecular Knoevenagel condensation.



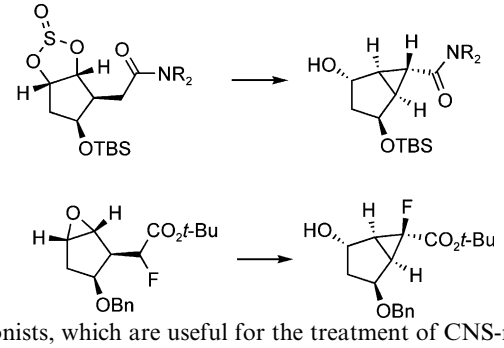
A simple and efficient protocol for the synthesis of new *N*-protected α-aminoalkylphosphonic diphenyl esters—aromatic analogues of arginine—is presented.



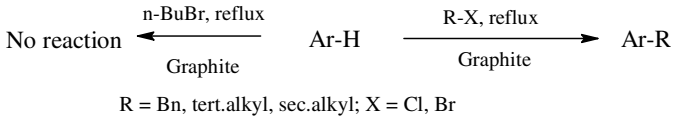
4 (R^1, R^2 = H, CO_2Me)

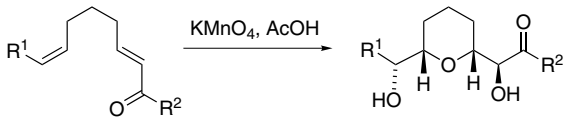
5

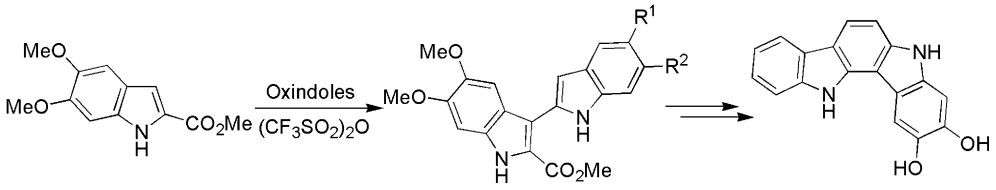
6

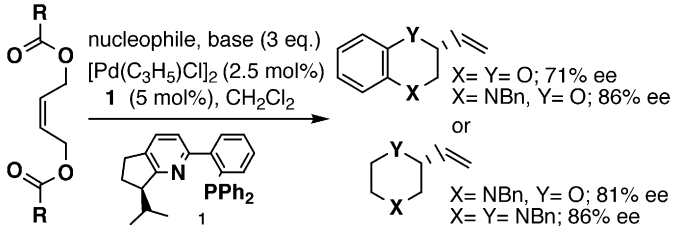


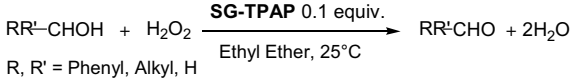
The title compounds serve as intermediates for the synthesis of mGluR agonists, which are useful for the treatment of CNS-related disorders.

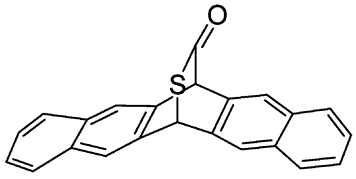




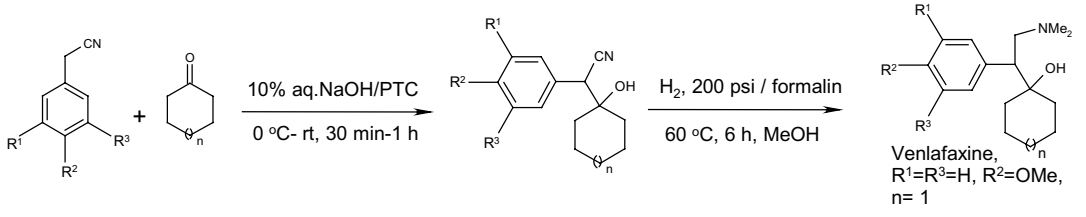


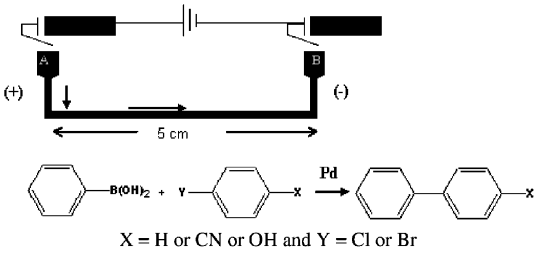


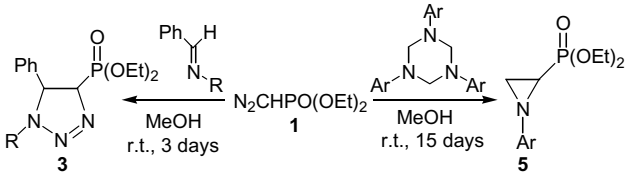


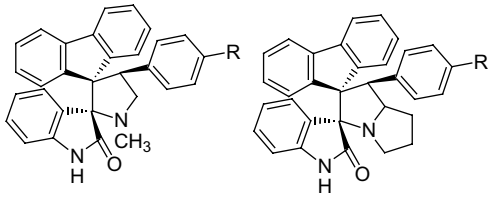


A new reduction methodology to prepare pentacene from pentacenequinone, has been developed. In order to solve the problems of solubility and stability of pentacene occurring when using pentacene in OTFTs, a Diels–Alder adduct of pentacene and thiophosgene, has been prepared. The retro-Diels–Alder reaction, which converts the adduct back to pentacene, has been studied.

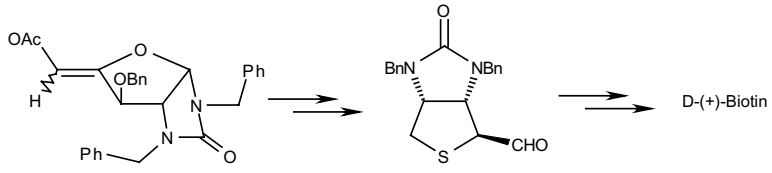




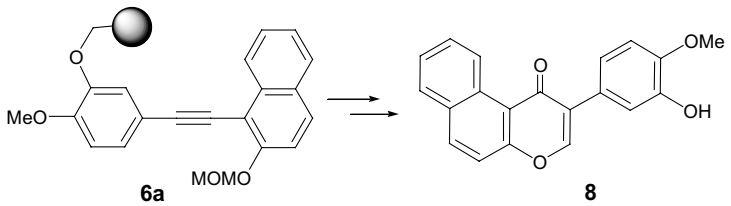




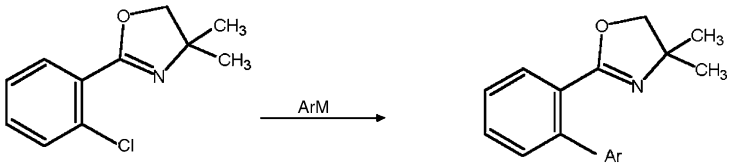
Synthesis of novel dispiro oxindole derivatives through microwave-assisted [3+2] cycloaddition reactions of azomethine ylides is described.



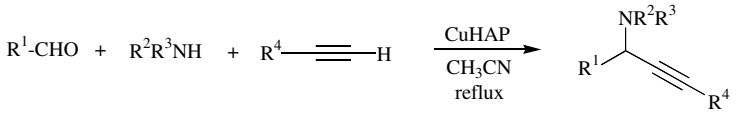
The total synthesis of D-(+)-biotin has been described starting from D-(+)-glucosamine using acyliminium chemisty.



An effective solid-phase preparation of the pharmaceutically interesting 4*H*-2-(3-hydroxy-4-methoxyphenyl)naphtho[1,2-*b*]pyran-1-one system from an anchored bisarylacetylene is described.

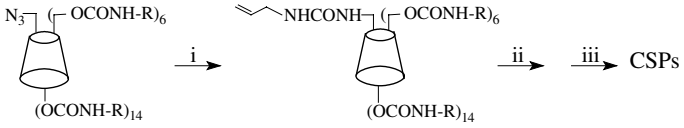


Formation of biaryls occurs in reasonable yields under convenient conditions for both aryllithium reagents and aryl Grignard reagents.



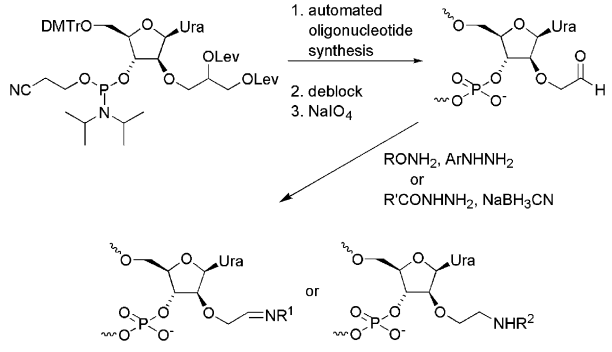
R^1 = aryl and cyclohexyl
R^2, R^3 = dialkyl and dibenzyl
R^4 = alkyl and phenyl

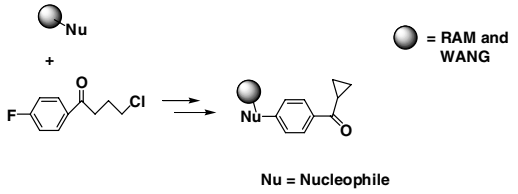
55-92%

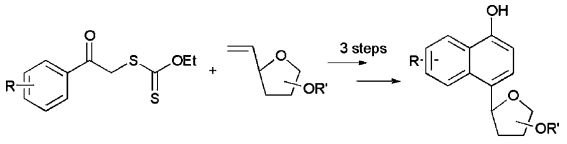


(i) allyl amine/THF, CO_2, PPh_3, r. t.; (ii) $(EtO)_3SiH$/THF, $Pt(PPh_3)_4$, 80 °C; (iii) silica gel, toluene (THF)

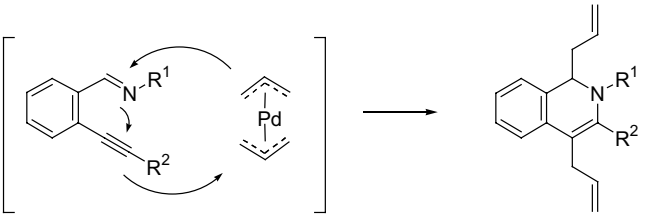
Four new chiral stationary phases based on mono-(6^A-allylcarbamido-6^A-deoxy)-arylcarbamoylated β-cyclodextrin were synthesized. The chiral stationary phase of phenylcarbamoylated β-cyclodextrin exhibited excellent separation capability for a variety of chiral compounds. Compared with previous work, it was found that the spacer remained on the surface of the silica gel and decreased the enantioseparation capability.



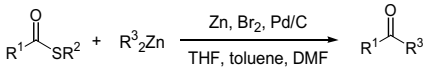




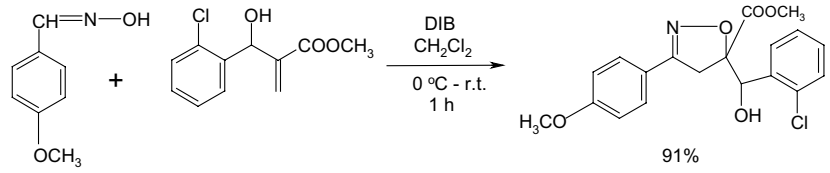
A new strategy has been developed for the synthesis of *C*-aryl glycosides based on a xanthate-mediated free radical addition–cyclization sequence of an acetophenone xanthate to a vinylic carbohydrate followed by aromatization.

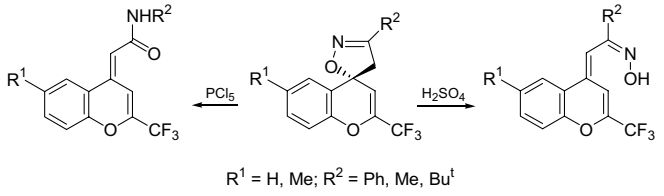


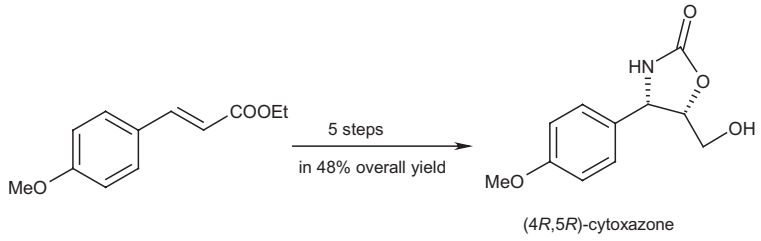
tandem nucleophilic allylation-aminoallylation of a bis-π-allylpalladium complex

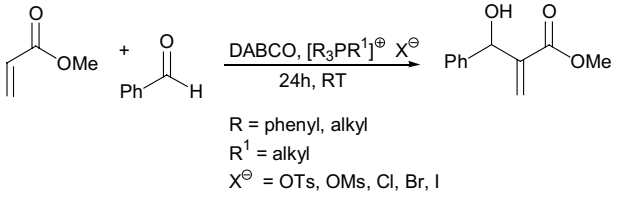


R^1: Alkyl, Aryl, Aralkyl with functional groups
R^2: Et, $-(CH_2)_{11}CH_3$
R^3: Alkyl

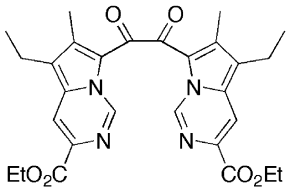




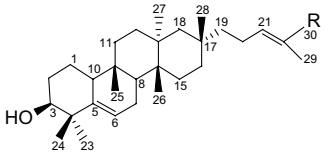


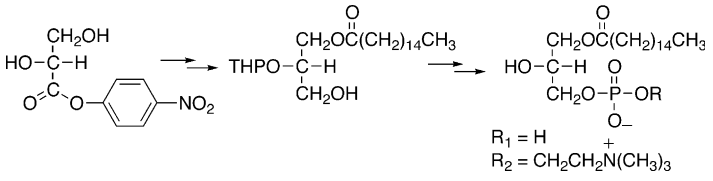


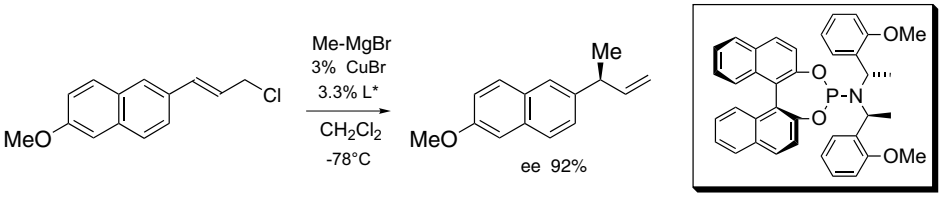
The first examples of the use of phosphonium salts as co-catalysts for the Baylis–Hillman reaction are described.

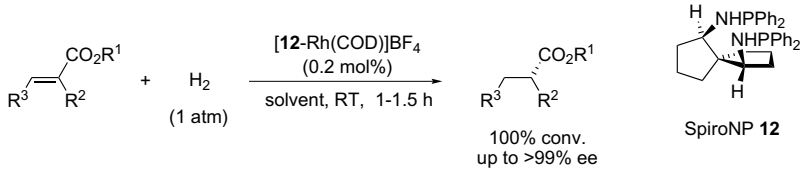


The synthesis and the structural characterization of dipyrrolyldiketone-based building blocks are reported.









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*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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