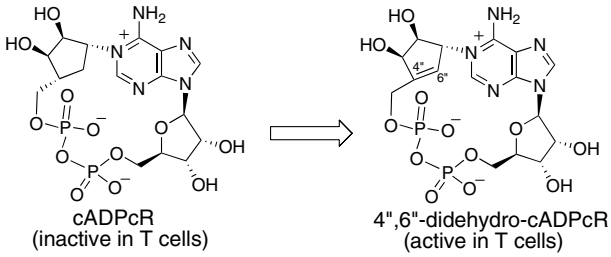
ELSEVIER

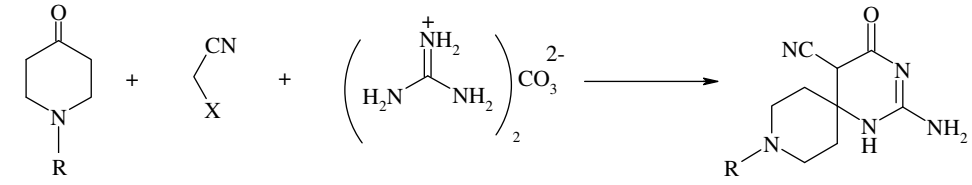
Tetrahedron Letters

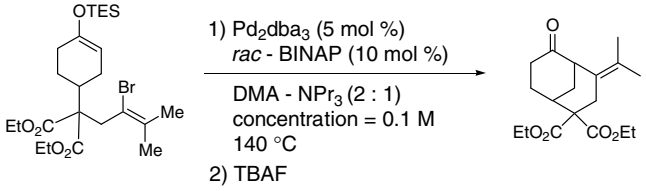
Tetrahedron Letters Vol. 49, No. 25, 2008

Contents

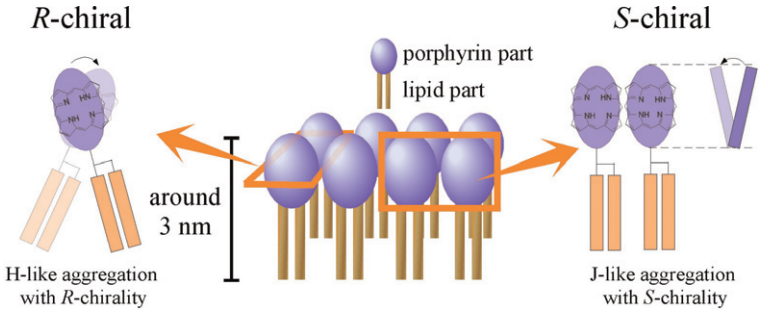
COMMUNICATIONS

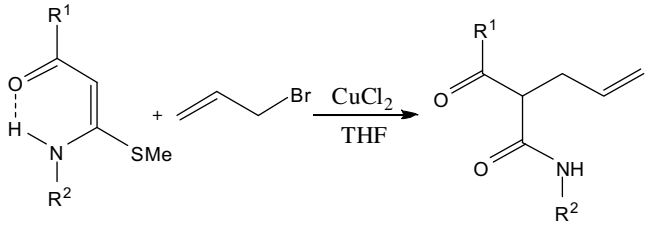




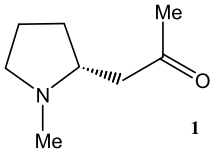


An infrequent intramolecular palladium-catalyzed alkenylation of silyl enol ether in the absence of a fluoride additive was developed leading to a construction of bicyclo[3.3.1]nonane ring system in reasonable yield.

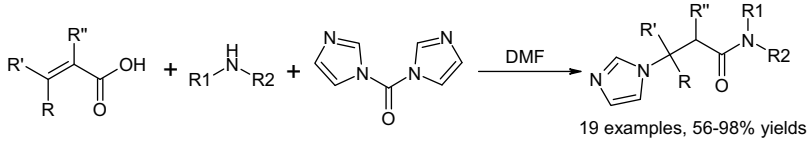


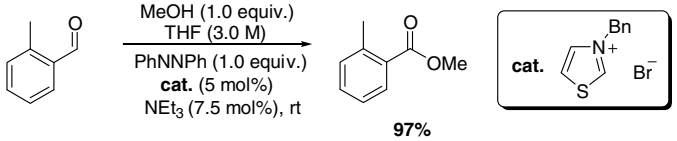


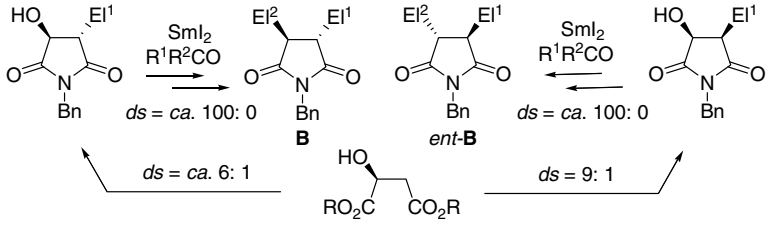
Regioselective C-allylation of enaminones catalysed by cupric chloride to give β-keto allyl enamides is reported.

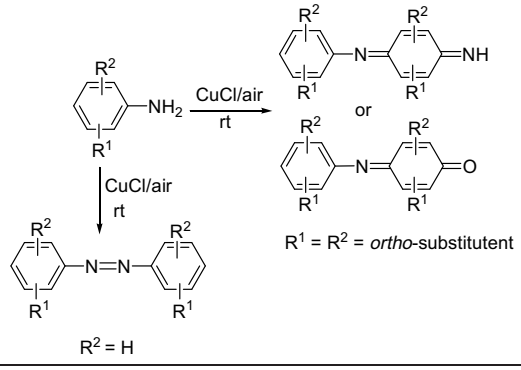


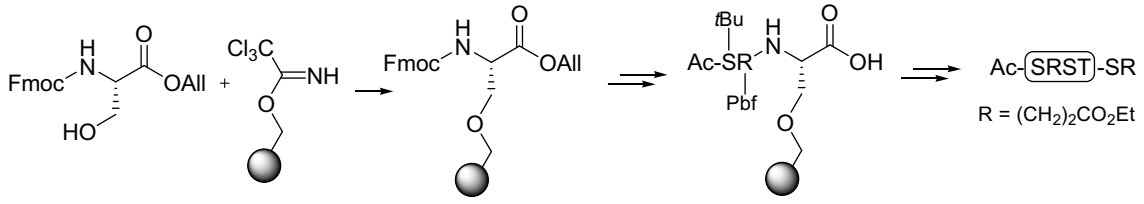
1

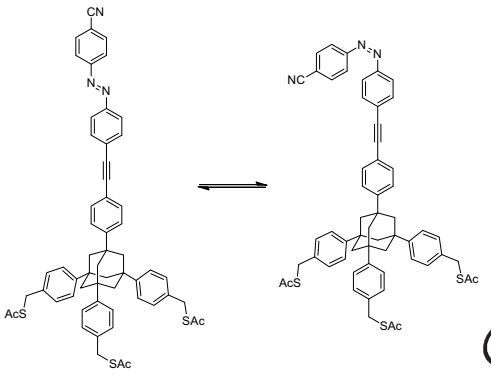


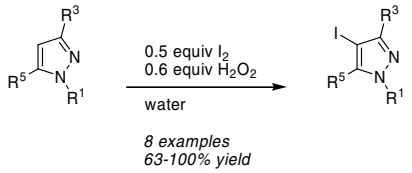




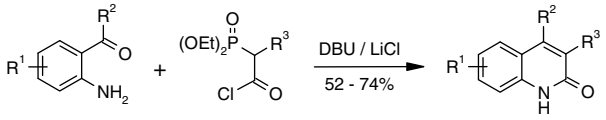




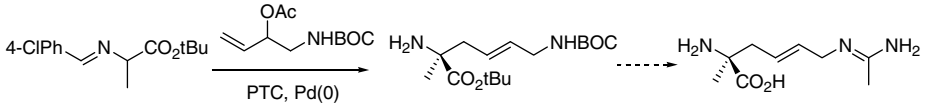


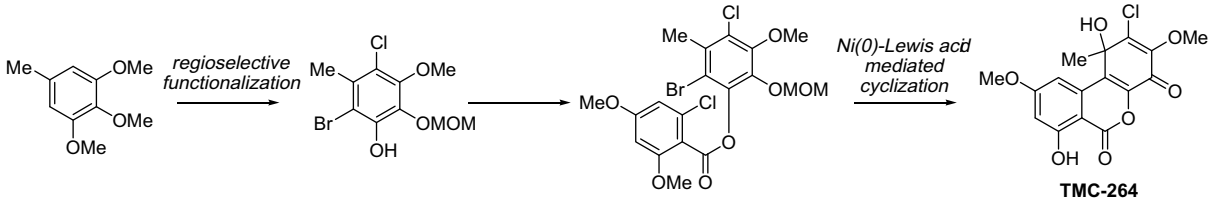


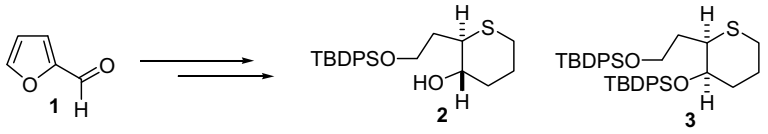
In this Letter, we describe a practical, green iodination of pyrazoles to form the corresponding 4-iodopyrazole derivatives. Substitution was well-tolerated at the 1-, 3-, and 5-positions of the pyrazole ring. The transformation itself takes place in water, using only 0.5 equiv of iodine and 0.6 equiv of hydrogen peroxide, a system that generates water as the only reaction by-product. In six out of eight examples, the 4-iodopyrazole product crystallized directly from the reaction mixture, enabling isolation of the product without employment of any organic solvents.

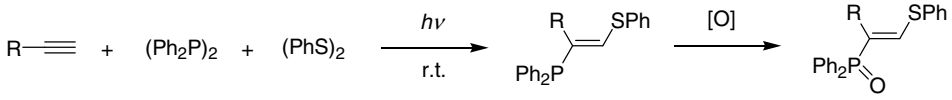


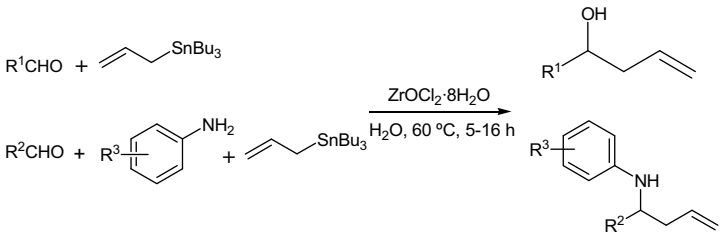
2-Quinolones are prepared by an acylation/HWE olefination sequence, which can be performed as a one-pot reaction. This method is applicable to enolisable aminoketones as starting materials. A wide range of substituents are tolerated.





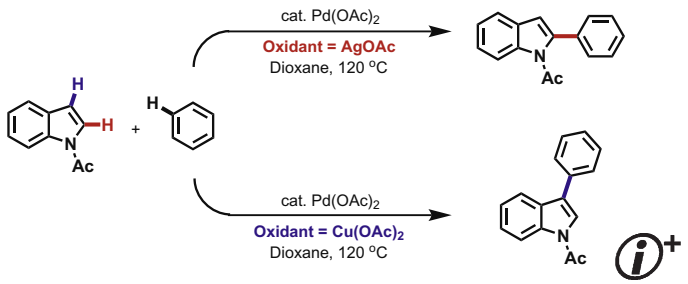


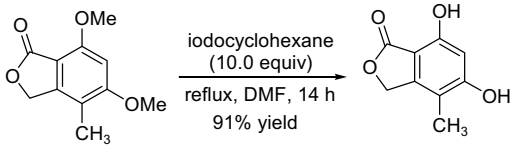


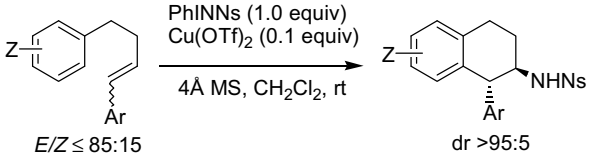


A practical synthesis of homoallylic alcohols and amines through allylation of aldehydes and imines in the presence of $ZrOCl_2{\cdot}8H_2O$ using water as solvent.

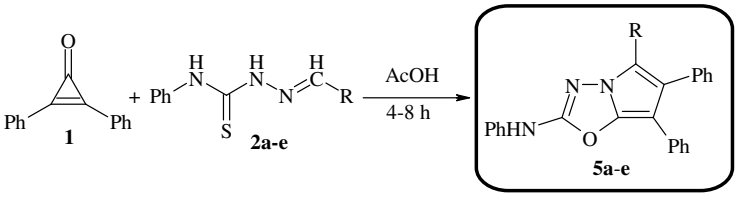
N-Acetylindoles can be oxidatively coupled with arenes such as benzene or pentafluorobenzene in dioxane. The use of $Cu(OAc)_2$ as the stoichiometric oxidant produces selective arylation at the 3-position of indole while AgOAc produces selective arylation at indole's 2-position.



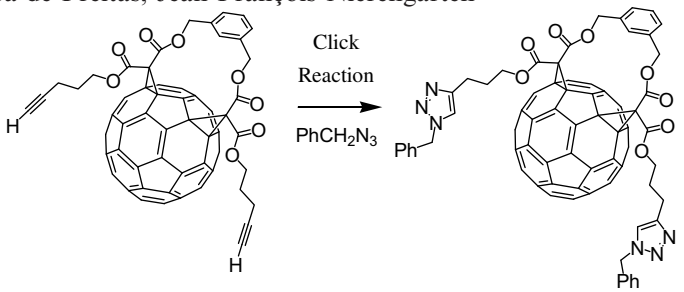




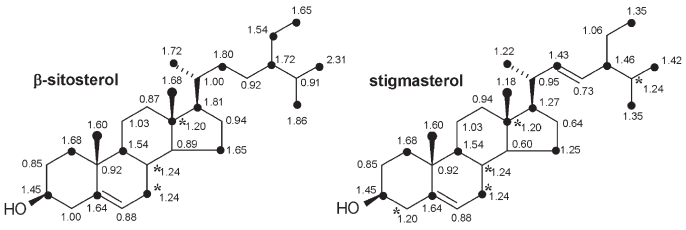
An efficient stereoselective synthesis of *trans*-1-aryl-2-aminotetralins has been achieved via $Cu(OTf)_2$ catalyzed one-pot aziridination and regioselective intramolecular arylation of in situ generated aziridines from 2-arylethyl styrenes and $PhINSO_2(4\text{-}NO_2C_6H_4)$ [PhINNs]. Reaction of a mixture of *E*/*Z*-styrenes (*E*/*Z* ⩽ 85:15) provided trans-N-protected-1-aryl-2-aminotetralins with high diastereoselectivity (dr > 95:5).



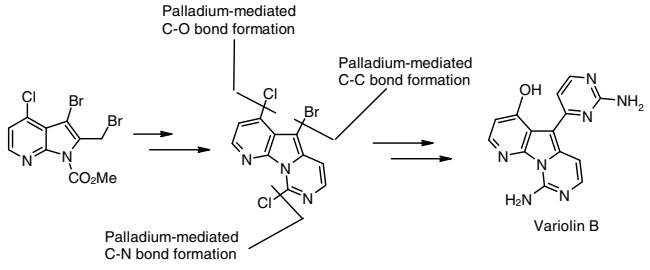
2,3-Diphenylcyclopropenone (**1**) reacts with ylidene-*N*-phenylhydrazine-carbothioamides **2a**–**e** to form the pyrrolo[2,1-*b*]-1,3,4-oxadiazoles **5a**–**e**.



C_{60} derivatives bearing either terminal alkyne or azide functional groups have been used as building blocks under the copper-mediated Huisgen 1,3-dipolar cycloaddition conditions leading to 1,2,3-triazole derivatives.



Feeding [1-^{13}C]glucose into the disorganized cells of *Croton stellatopilosus* suspension cultures led to labeling patterns in β-sitosterol and stigmasterol that are consistent with the acquisition of isoprene units via exclusively the mevalonate pathway.



*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

Available online at www.sciencedirect.com
ScienceDirect

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Chemical Engineering and Biotechnology Abstracts, Current Biotechnology Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS. Full text available on ScienceDirect

ELSEVIER

ISSN 0040-4039