Contents lists available at ScienceDirect

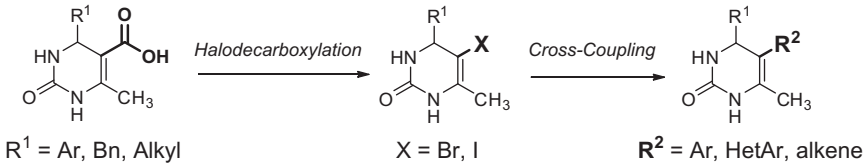
Tetrahedron Letters

journal homepage: www.elsevier.com/locate/tetlet

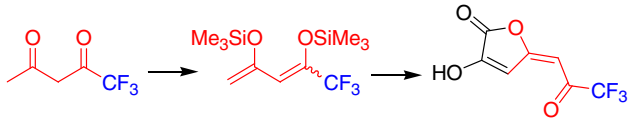
Tetrahedron Letters Vol. 51, No. 39, 2010

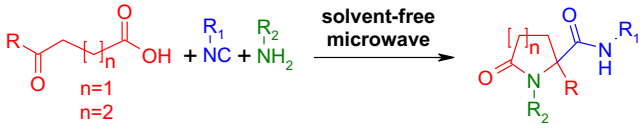
Contents

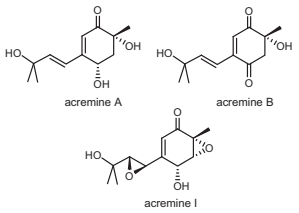
COMMUNICATIONS

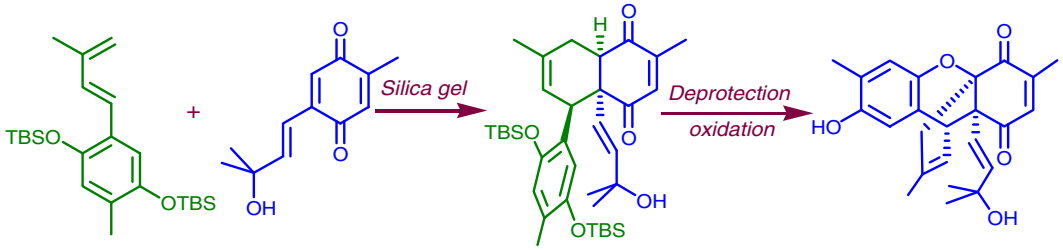


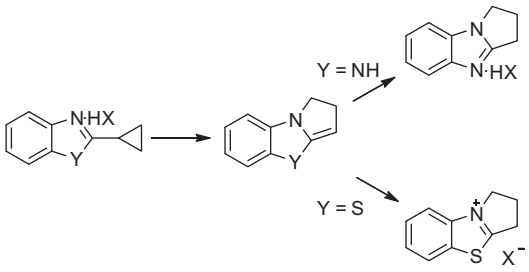
A novel synthesis of 6-methyl-4-phenyl-5-substituted-3,4-dihydropyrimidin-2(1*H*)-ones from 6-methyl-4-phenyl-5-halo-3,4-dihydropyrimidin-2(1*H*)-ones via the Suzuki–Miyaura reaction is reported. These previously unknown heterocyclic halides are easily prepared using the Biginelli multicomponent reaction followed by halodecarboxylation. The effect of varied substitution at the C-4 position on the cross-coupling reaction is also examined.

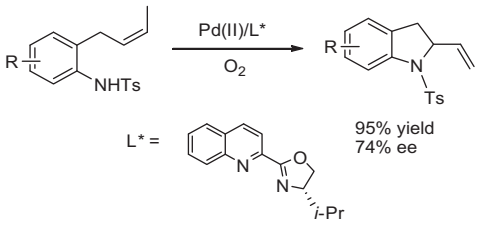


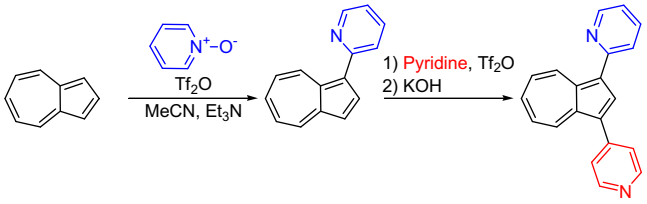


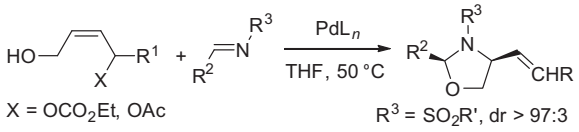




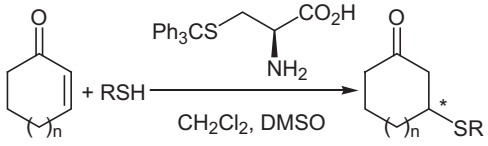




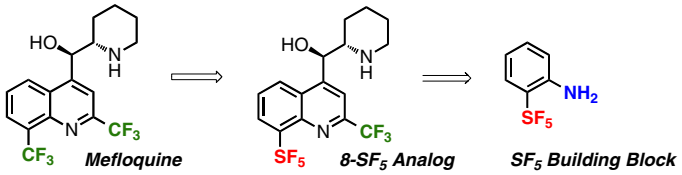


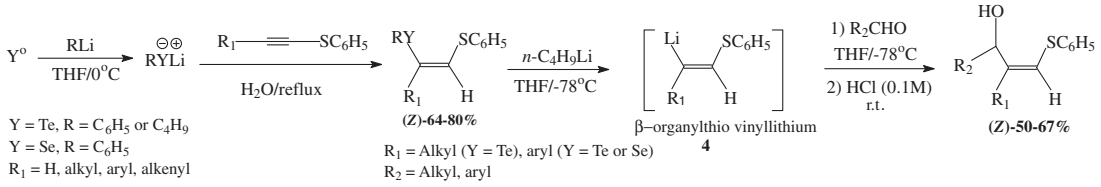


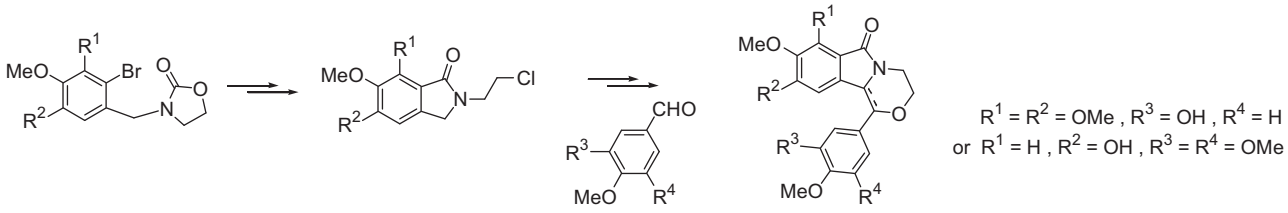
A highly diastereoselective palladium-catalyzed synthesis of 1,3-oxazolidines using the readily available 2-butene-1,4-diol derivatives and imines as substrates has been reported.

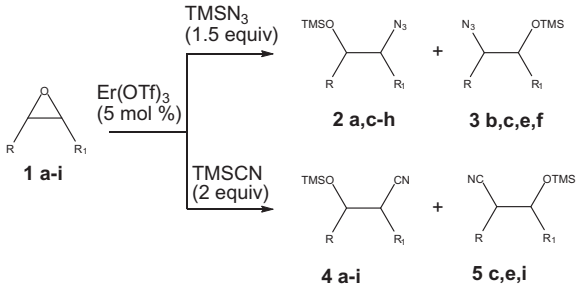


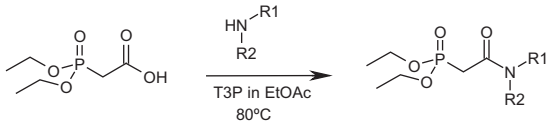
A simple primary amino acid was found to be an efficient catalyst for thio-Michael addition of benzyl mercaptan to cyclic enones.



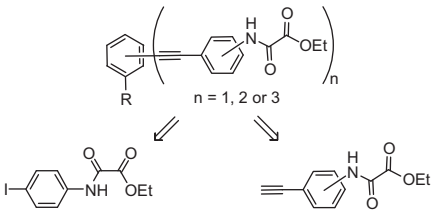




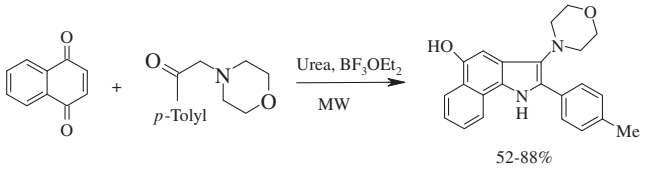




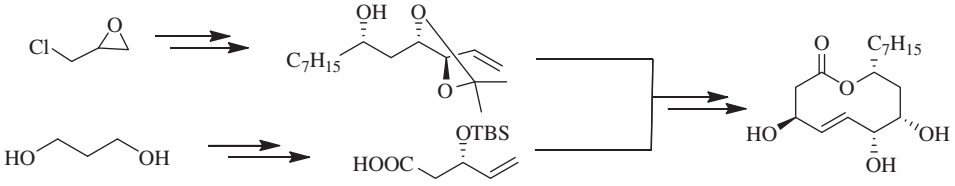
An efficient and versatile synthetic method is described to synthesize diethylphosphonacetamides in a single step.

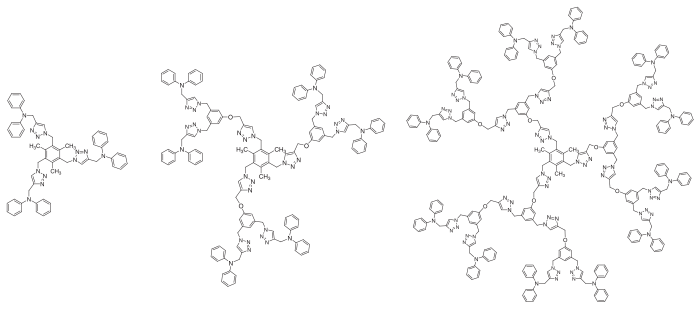


Up to three *N*-phenyl-oxalamic acid ethyl esters are combined via Sonogashira-type cross-coupling reactions. The short synthetic pathways lead easily to valuable molecules with overall interesting yields.

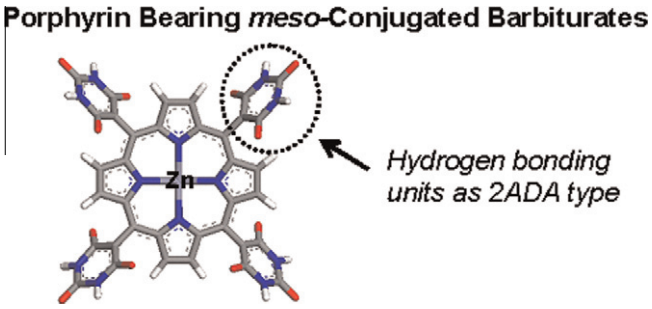


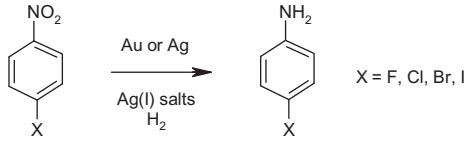
A fast solvent-less synthesis of 5-hydroxy-benzo[*g*]indoles has been accomplished by Lewis acid-catalyzed one-pot reaction of naphthoquinone, ω-morpholinoacetophenone, and urea under microwave irradiation.



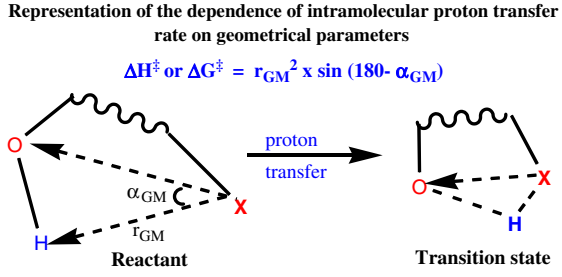


Oligonucleotides acylated by the chemically stable TMSBz group at their 5′ or 3′ terminus were synthesized. This modification enhanced not only their resistance to exonucleases but also hybridization affinity for the complementary DNA oligomers.

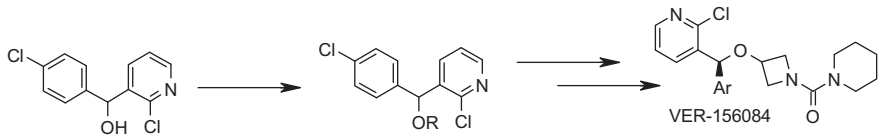




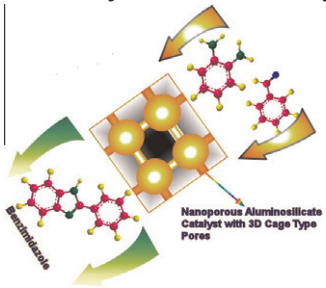
A novel application of silver(I) salt promoters in silver- and gold-catalysed hydrogenations was applied to the chemoselective reduction of halonitrobenzenes resulting in excellent conversions and selectivities. This reactivity, coupled with the low cost of silver relative to more expensive precious metal counterparts, demonstrates this catalytic system as an attractive alternative for challenging chemoselective transformations.



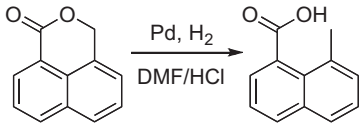
X is O, N or C; α_{GM} is the hydrogen bonding angle; r_{GM} is the distance between the two reactive centers; $\Delta G^{\ddagger}$ and $\Delta H^{\ddagger}$ are the free activation and enthalpic activation energies, respectively.



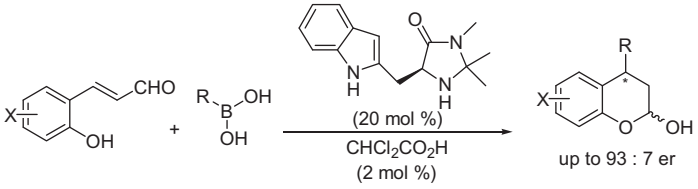
We report a novel etherification of hindered ethers and its application in an improved synthesis of the FAAH inhibitor VER-156084. We show the conditions reported to be of broad applicability to the synthesis of hindered ethers.

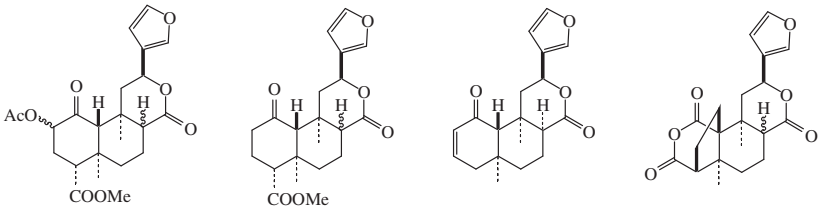


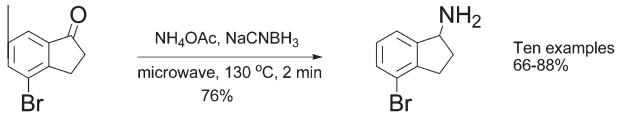
Synthesis of benzimidazoles via the coupling of aldehydes with *o*-phenylenediamine using the highly acidic AlKIT-5 catalyst is demonstrated.



An improved, chemoselective hydrogenolysis method has been developed to favor debenzylation and simultaneously minimize saturation of aromatic residues as well as acid-mediated bond cleavage.







*Corresponding author
Supplementary data available via 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

Available online at www.sciencedirect.com
ScienceDirect

ISSN 0040-4039