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Tetrahedron Letters

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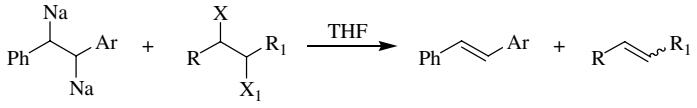
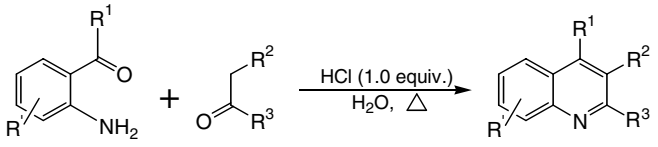
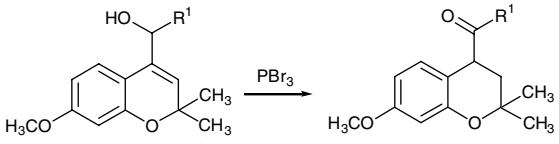
Contents

COMMUNICATIONS

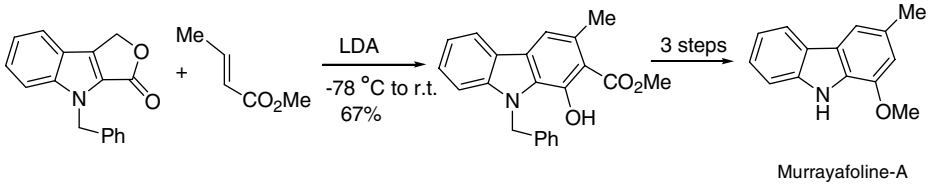


Ar = Ph, 2-pyridyl; X and/or X_1 = Br, Cl, OCH_3

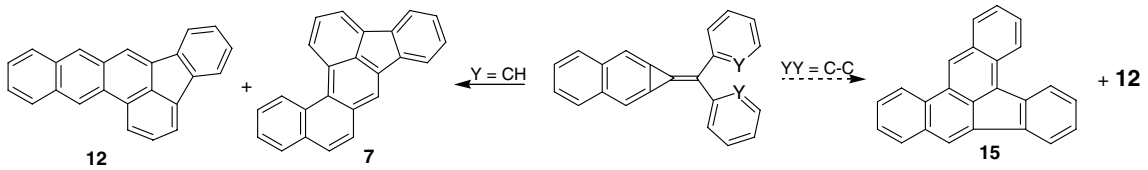




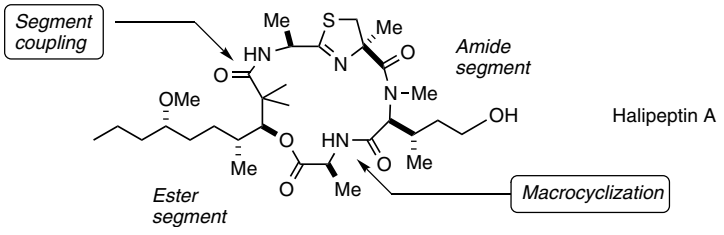
R^1 = Alkyl, Aryl, Heteroaryl

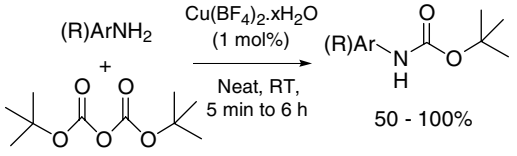


Murrayafoline-A



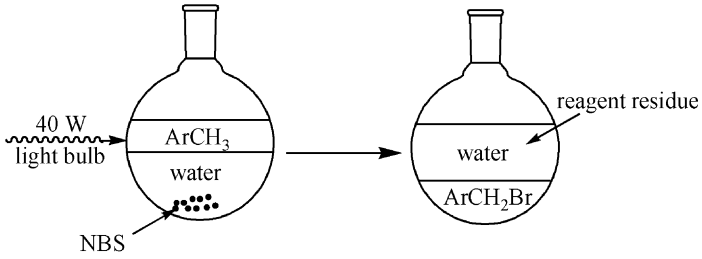
Flash vacuum thermolysis of fluorenylidenecyclopropa[*b*]naphthalene (**1**) leads to three-membered ring opening, rearrangement and formation of dibenzacephenanthrylenes **7** and **12**. The diphenyl analogue also provides $C_{24}H_{14}$ polycyclic aromatics by cyclodehydrogenation/rearrangement.



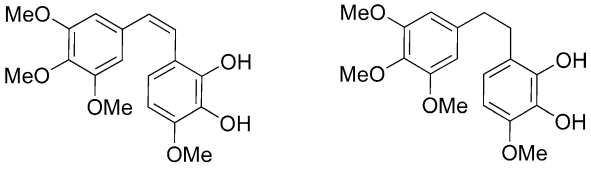


Commercially available copper(II) tetrafluoroborate hydrate efficiently catalyses *N-tert*-butoxycarbonylation of amines under solvent-free conditions and at room temperature in high yields and in short times.

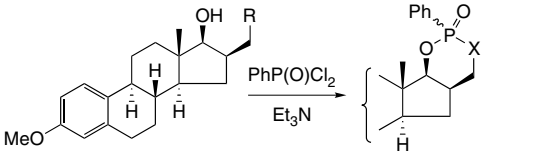
$$CO_2^{\cdot-} + \text{maleate} \rightarrow (\mathbf{I}/\mathbf{II} + CO_2)/{\cdot}CH(CO_2^-)CH(CO_2^-)_2$$
$$CO_2^{\cdot-} + \text{fumarate} \rightarrow (\mathbf{III}/\mathbf{IV} + CO_2)/{\cdot}CH(CO_2^-)CH(CO_2^-)_2$$



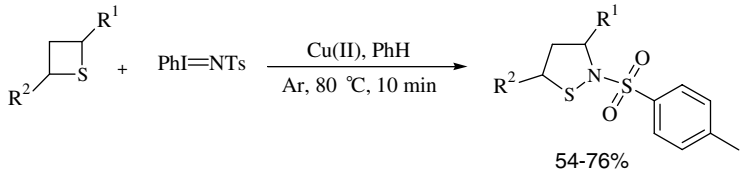
'On water' benzylic bromination of toluene derivatives with *N*-bromosuccinimide (NBS) activated by visible light was effective despite the non-solubility of substrates ($ArCH_3$) in pure water.



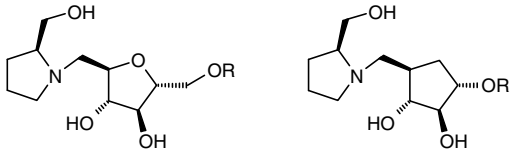
combretastatin A-1 **combretastatin B-1**



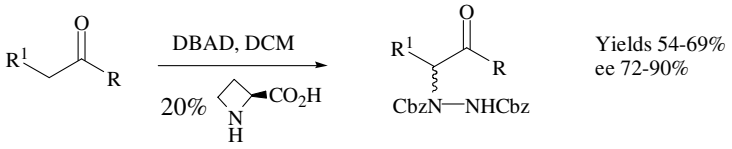
R = OH, NH_2, NH–*n*-Pr, NH–Bn X = O, NH, N–*n*-Pr, N–Bn

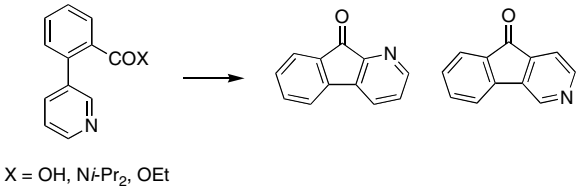


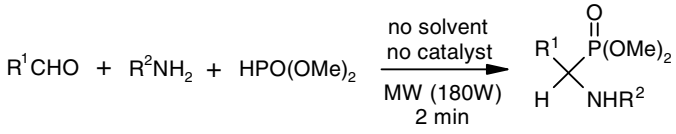
An efficient synthesis of isothiazolidines in good yields is described.



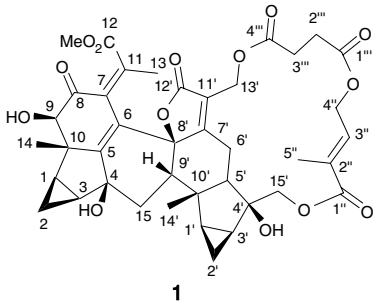
Two new families of arabinosyltransferase inhibitors, incorporating C-glycoside and *carba*-sugar moieties have been prepared.







A solvent-free and catalyst-free Kabachnik–Fields reaction for α-amino phosphonates is promoted by microwave irradiation and finished in 2 min.



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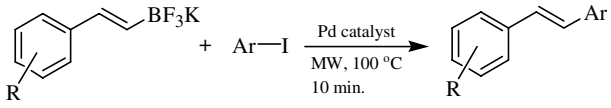
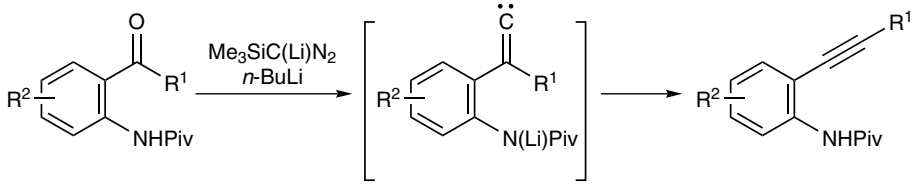
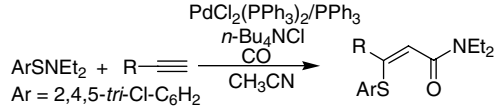
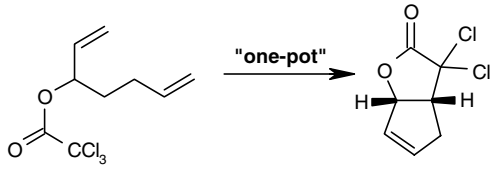


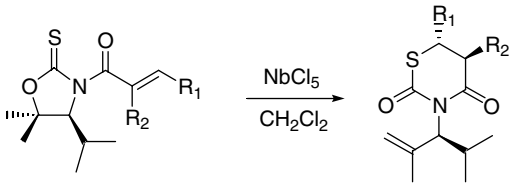
Cross-coupling reactions of potassium arylvinyltrifluoroborates with aryl iodides in the presence of a palladium catalyst occur rapidly utilizing microwave irradiation. The coupled products are produced in excellent yields. Alkynyltrifluoroborates also undergo the coupling reaction.

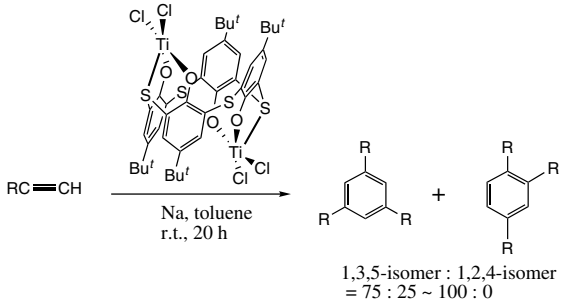


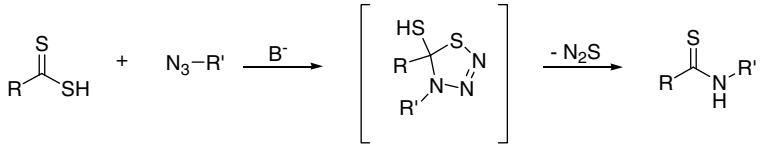


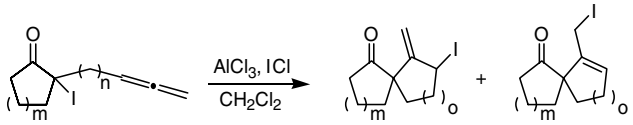


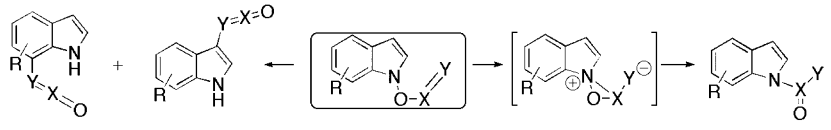
The Grubbs metathesis catalysts have been shown to participate in sequential metathesis–Kharasch sequences.

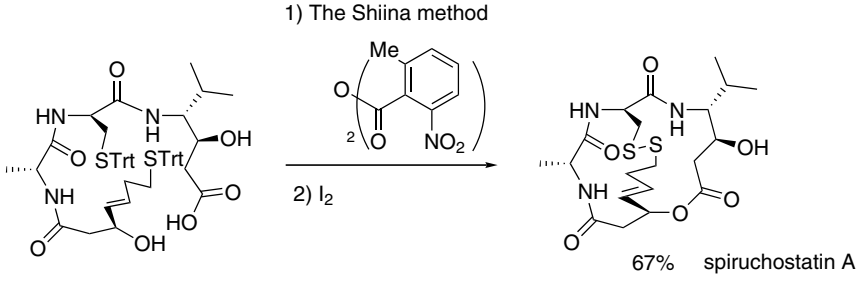


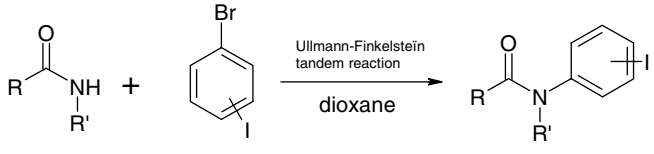




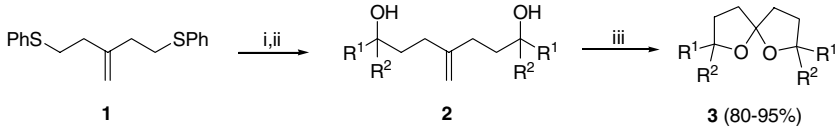




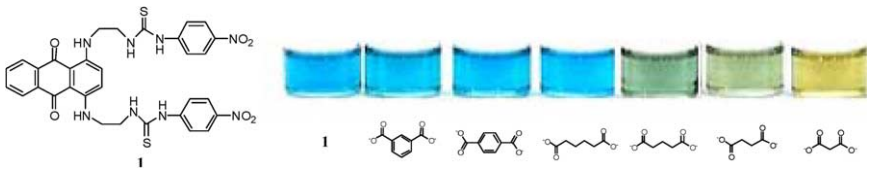


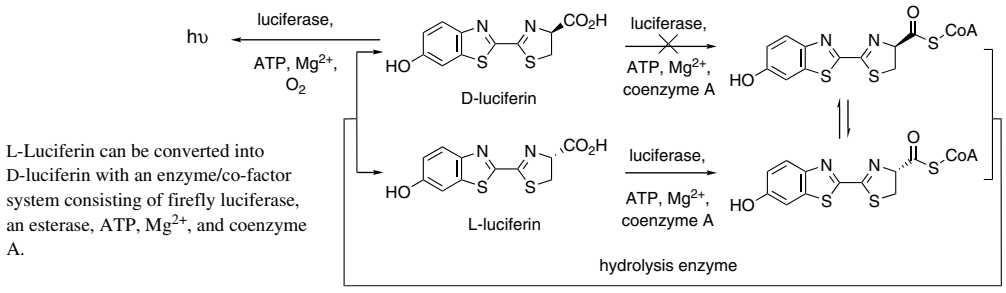


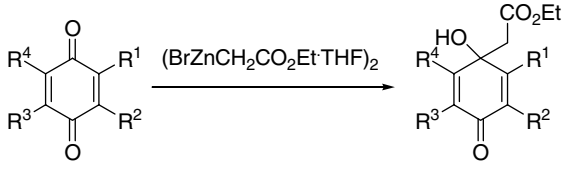
A new Ullmann–Finkelstein tandem reaction for the preparation of *N*-(iodophenyl)-amides is described.

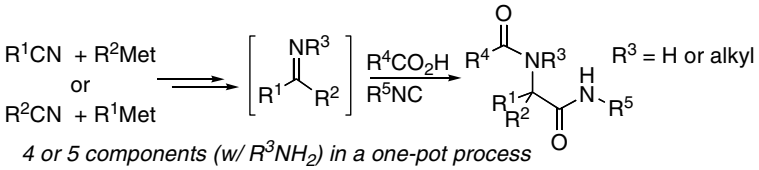


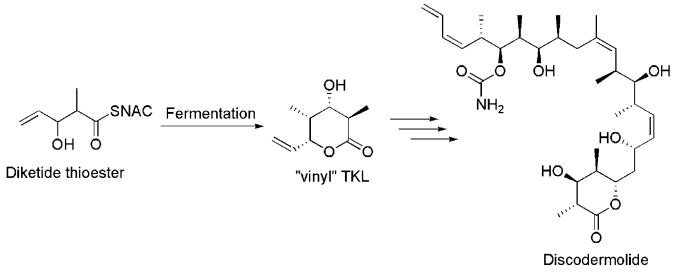
(i) Li, DTBB (2.5%), R^1R^2CO, THF, 0 °C, 2 h; (ii) H_2O; (iii) O_3, CH_2Cl_2, -78 °C, then $SC(NH_2)_2$, rt.



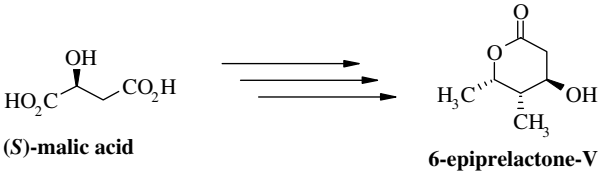




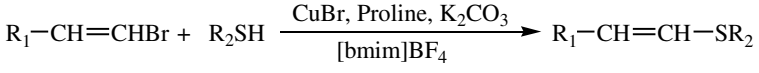


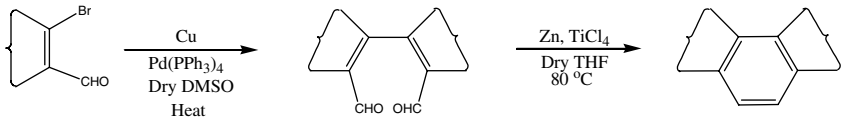


Key intermediates used in Smith's total synthesis of discodermolide were synthesized from an engineered polyketide made via precusor feeding to genetically modified polyketide producing bacteria.



The intramolecular protective group (benzylidene acetal) assisted *syn*-1,3-diol synthesis has been efficiently utilized in a short synthesis of 6-epiprelactone-V starting from (*S*)-malic acid.





OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Total synthesis of halipeptin A, a potent anti-inflammatory cyclodepsipeptide, has been achieved. Key steps are proline-catalyzed asymmetric α-oxyamination, diastereoselective aldol reaction, silver cyanide-mediated racemization-free esterification, and macrolactamization. *Tetrahedron Letters* **2006**, *47*, 1081–1085.

Indexed/Abstracted 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

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