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Tetrahedron Letters

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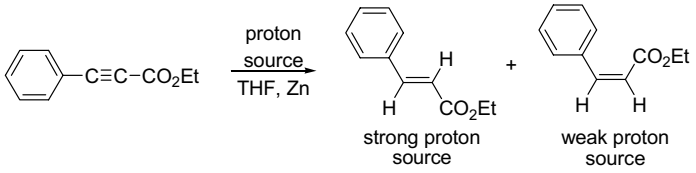
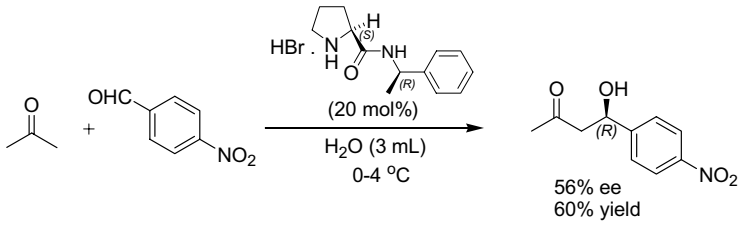
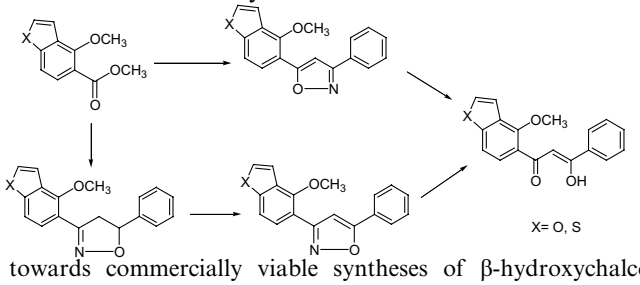
Contents

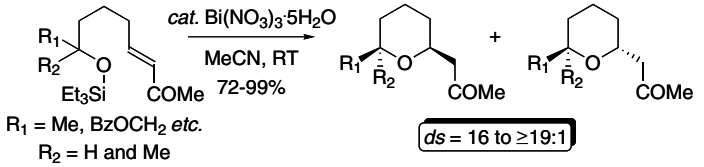
COMMUNICATIONS



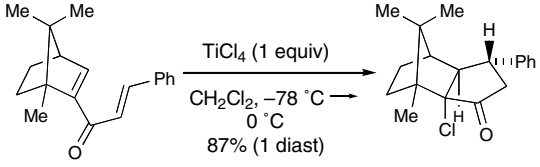




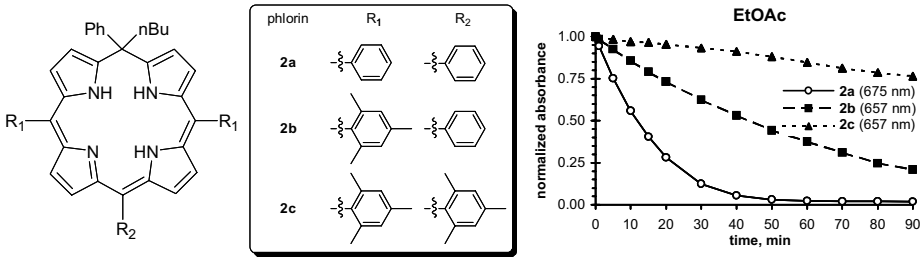
An easy and efficient approach towards commercially viable syntheses of β-hydroxychalcones containing anellated furan (pongamol) and thiophene rings is described.



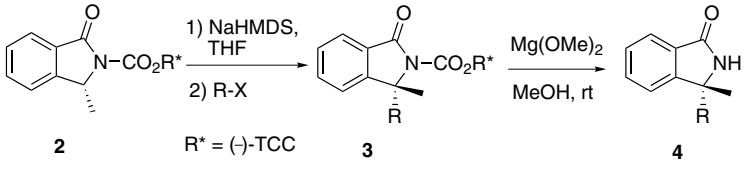
The intramolecular oxa-conjugate addition of tethered triethylsilyloxy substituted α,β-unsaturated ketones mediated by bismuth(III) nitrate pentahydrate provides a mild and efficient method for the stereoselective construction of *cis*-2,6-disubstituted tetrahydropyrans.

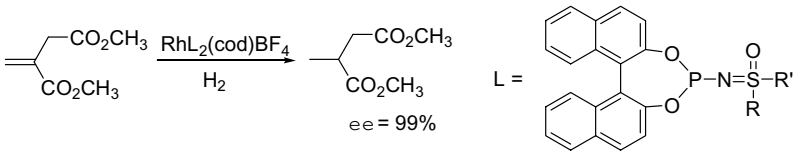


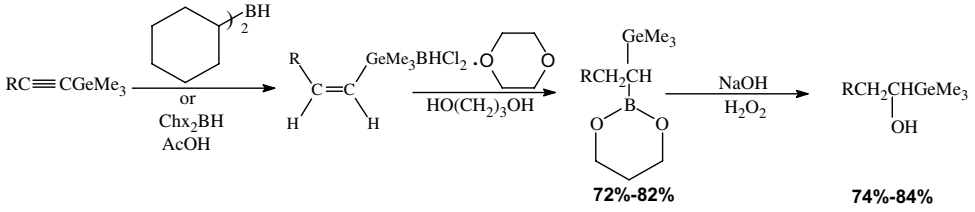
Upon treatment with $TiCl_4$, various bridged bicyclic dienones underwent Nazarov electrocyclization and efficient chloride trapping of the resulting cyclopentenyl cation. By this process, up to four new stereocenters are created with high control.

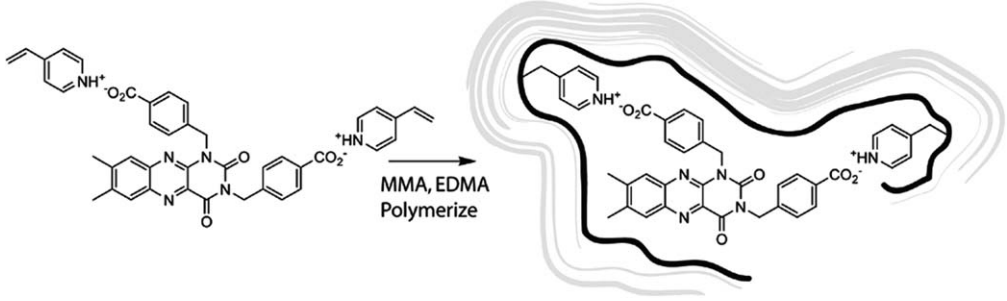


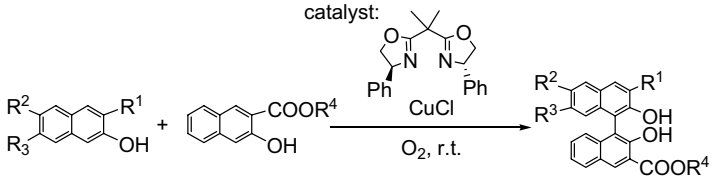
The effect of sterically bulky mesityl substituents on the stability towards light and air of dilute solutions of *meso*-substituted phlorins was examined.



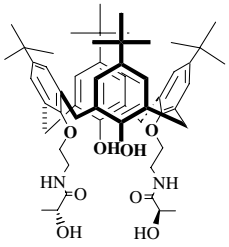




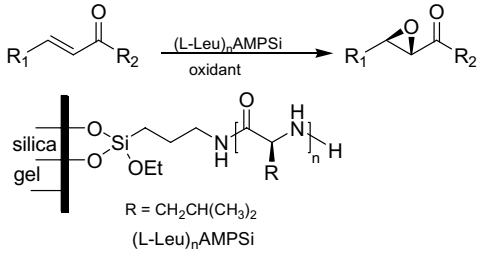




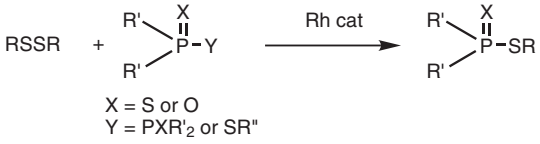
R^1, R^2, R^3 = H, R^4 = CH_3: Cross-coupling selectivity = 95.8%

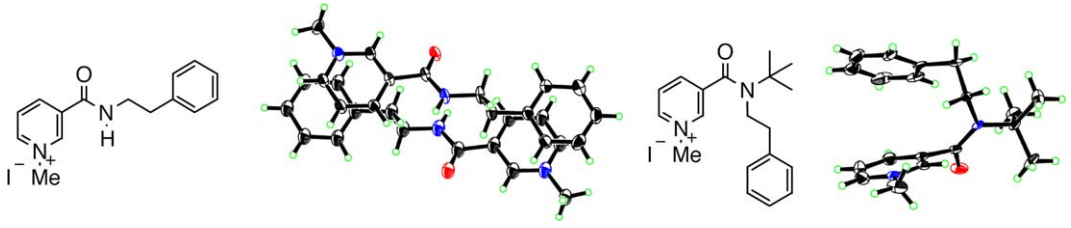


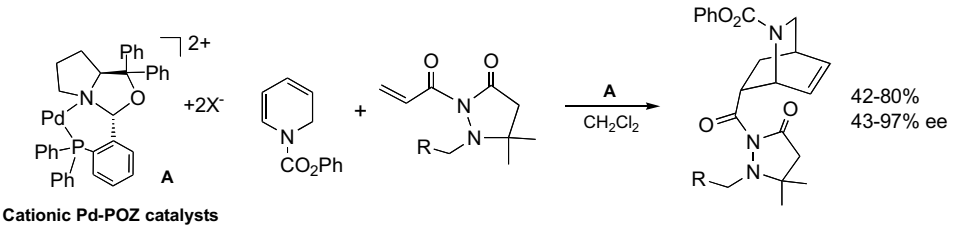
A new family of *p-tert*-butylcalix[4]arenes functionalized at the lower rim with α-ketoamide or α-hydroxyamide functions has been prepared. Host–guest complexation properties towards various anions of a chiral α-hydroxyamide have been examined by ^{1}H NMR spectroscopy. This new receptor has shown promising selectivity for $H_2PO_4^-$ and *N*-tosyl-(L)-alaninate.



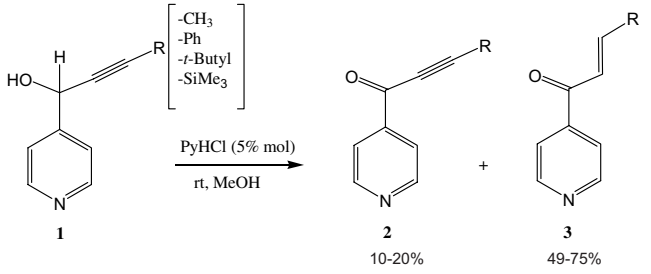
A readily recoverable silica-grafted poly(amino acid) catalyst has been developed for Juliá–Colonna asymmetric epoxidation of α,β-unsaturated aromatic ketones.



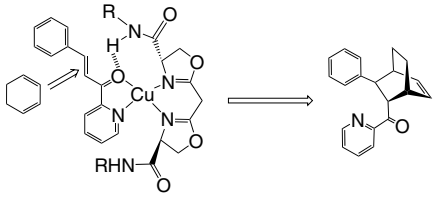




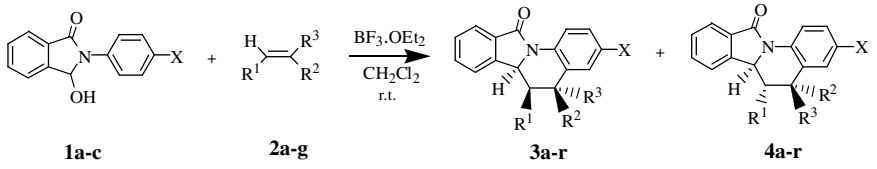
The DA reaction of 1-phenoxy-1,2-dihydropyridine with 1-substituted 2-acryloyl-pyrazolidin-3-ones using cationic chiral Pd–phosphinooxazolidine catalyst afforded chiral isoquinuclidines with an excellent optical purity (up to 97% ee).

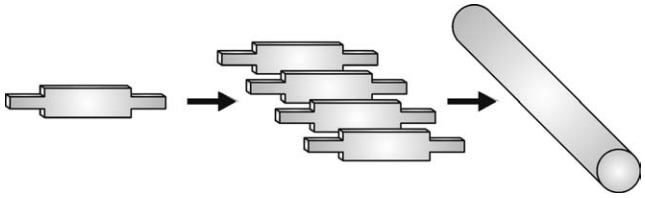


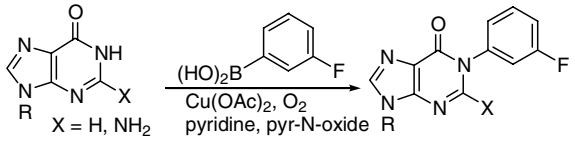
(*Z*)-Enone **3** was detected at early times except for R = CH_3. When carried out in MeO^2H, the two vinylic hydrogens of enone **3** are deuterated.



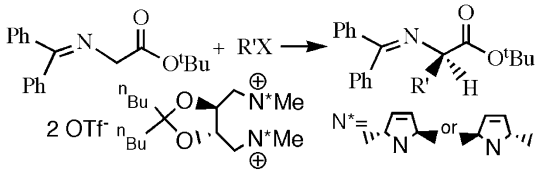
High catalytic performance was achieved through the interligand hydrogen bonding interaction.

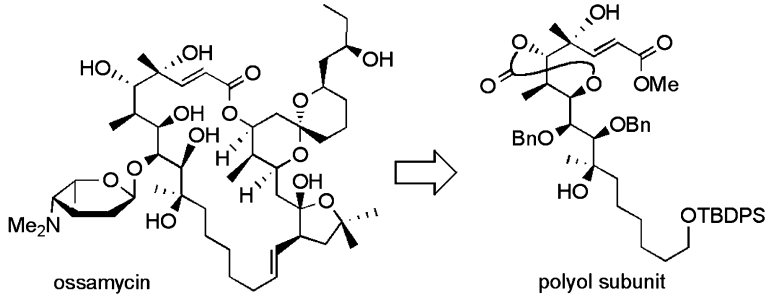


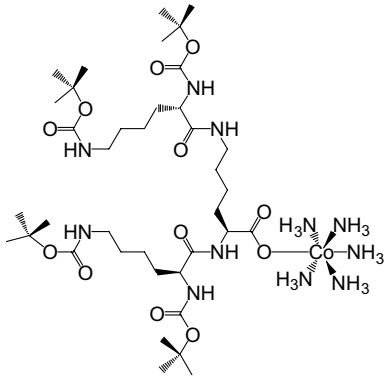


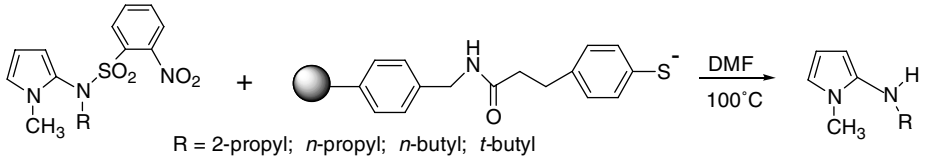


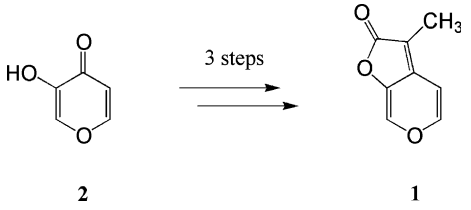
Chemoselective copper(II) mediated oxidative coupling with boronic acids was used to synthesize N^1-aryl inosine and guanosine derivatives.



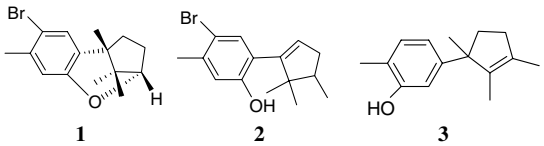




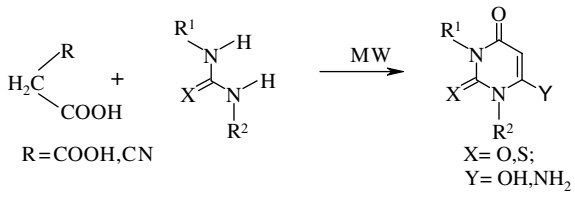


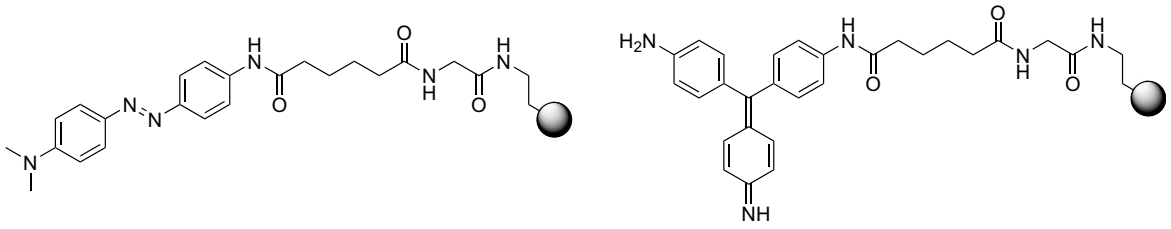


2 **1**

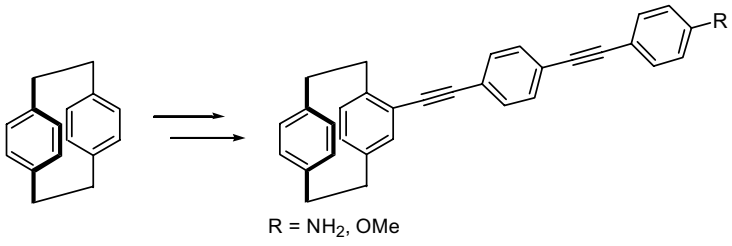


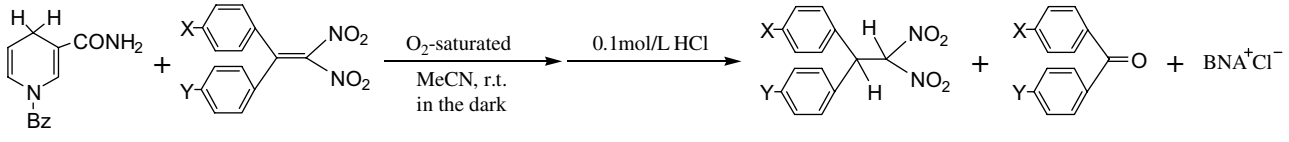
1 **2** **3**



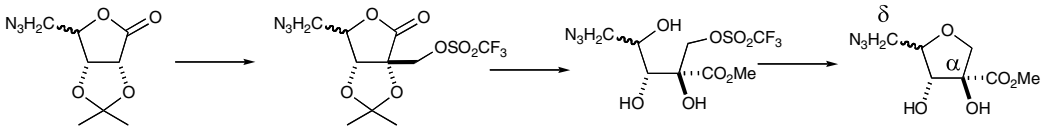


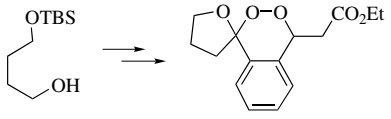
Two aniline-based indicators were immobilised on controlled pore glass and evaluated as pH sensors. The UV–vis spectrometric pH response ranges and response times were examined.



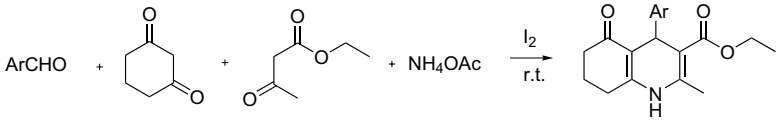


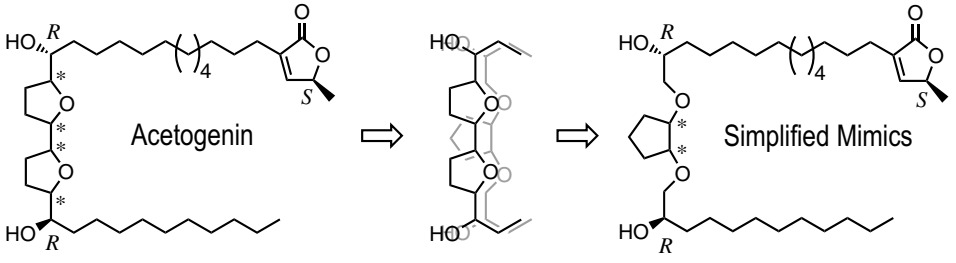
On the basis of the ratios of the reduction product to the oxidation product from the title reaction it is seen that there exists a mechanistic spectrum between polar mechanism and SET mechanism for the equivalent hydride transfer.





Four novel spiro-peroxides were designed and synthesized.





OTHER CONTENTS

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Highly efficient asymmetric synthesis of isoquinuclidines was achieved by the enantioselective Diels–Alder reaction of 1-phenoxy-1,2-dihydropyridine with 1-substituted 2-acryloyl-pyrazolidin-3-ones using cationic chiral palladium–phosphinooxazolidine catalyst. *Tetrahedron Letters* **2005**, *46*, 5677–5681.

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