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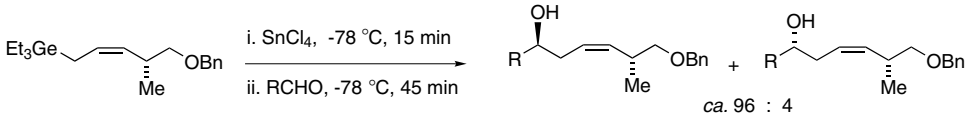
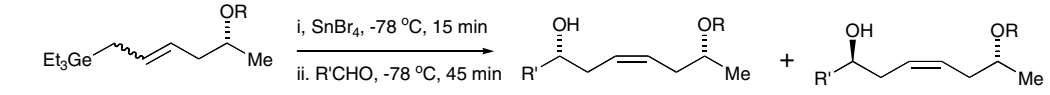
Contents

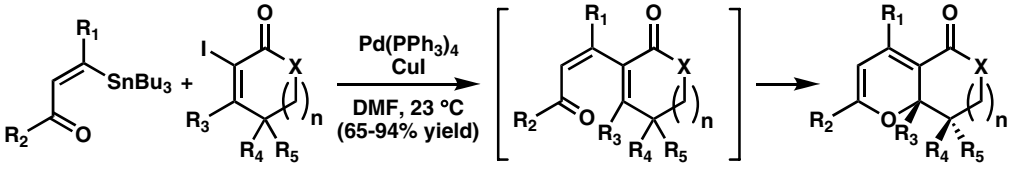
COMMUNICATIONS



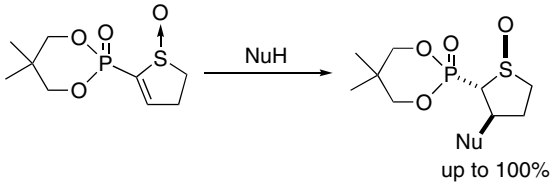


(2*E*)- or (2*Z*)-5-Hydroxy- and 5-methoxy-hex-2-enyl(triethyl)germanes

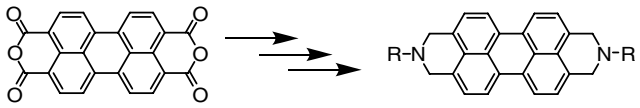
1,6-*syn*:1,6-*anti* = 90:10



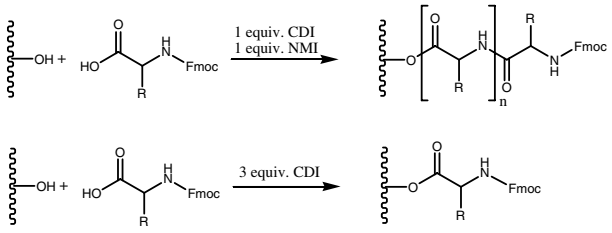
A palladium-catalyzed tandem Stille-oxa-electrocyclization reaction has been developed for the convergent preparation of highly substituted polycyclic pyran systems. The strategy presented in this letter is an alternative to the known methods for constructing similar pyran systems. The substrate scope of this diastereoselective transformation is explored.



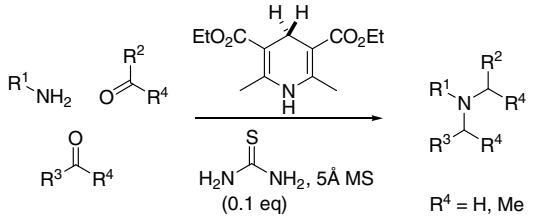
NuH = PhSH, 4-TolSH, *t*-BuSH, *n*-HexSH, $PhNH_2$, $CH_2(CO_2Et)_2$



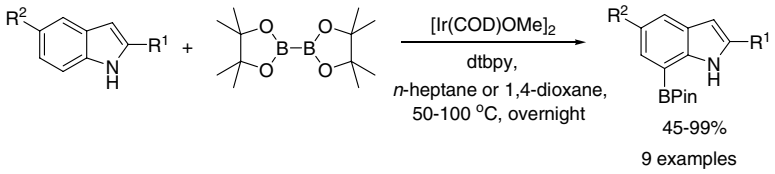
A new class of reduced perylene bisimide analogues was prepared from commercially available perylene-3,4,9,10-tetracarboxylic dianhydride.



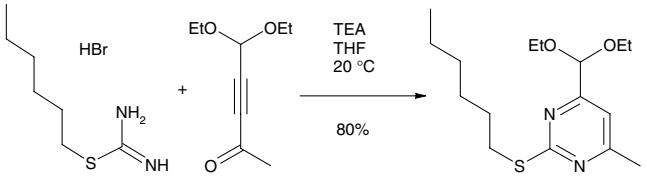
Direct coupling of CDI activated amino acids on cellulose membranes allows the synthesis of cleavable peptides with free C-termini in yields of at least 50 μg/cm^2 which are enough for any biological assays.



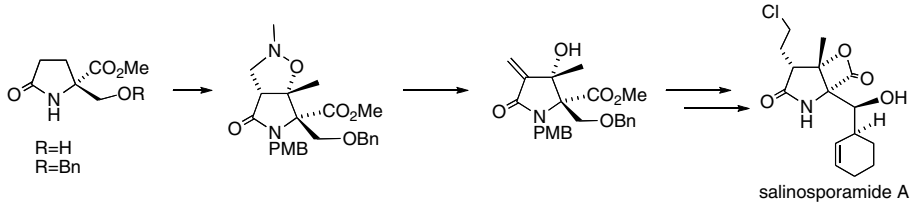
An efficient metal-free procedure for the synthesis of tertiary amines by the reductive amination of carbonyl compounds is reported, which allows a convergent and mild access to amines of the general formulas $NR(R')_2$ and $NRR'R''$.

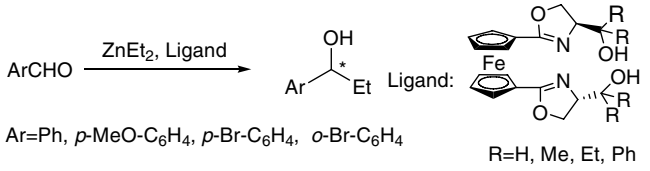


The iridium-catalyzed borylation of 2-substituted indoles has been investigated. Direct CH-activation is observed highly selective at the 7-position of the indole. The scope and limitation of the mono- and di-borylation reaction are presented.

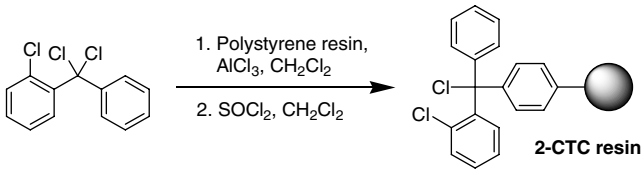


The key step involved a cyclocondensation of a thiuronium salt with an acetylenic ketone harbouring an acetal protected aldehyde function.

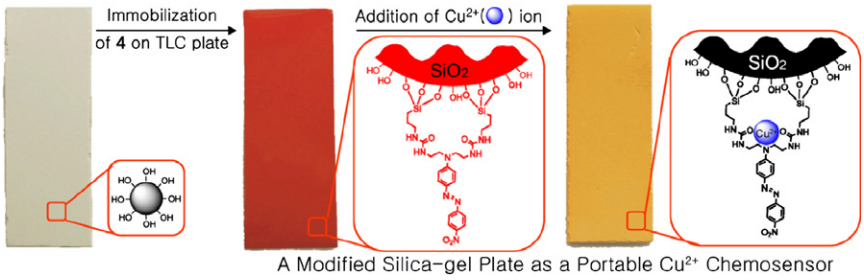


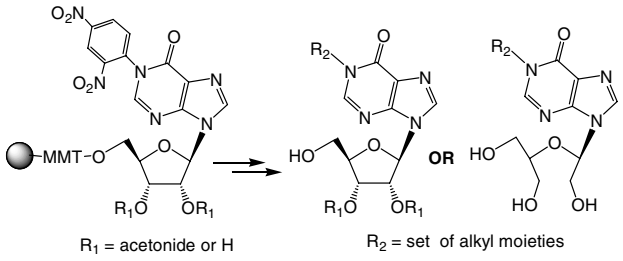


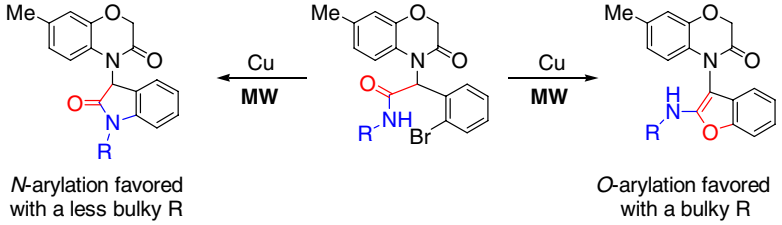
Novel C_2-symmetric bisoxazoline ligands **5** with a ferrocene backbone and a hydroxyl group at the substituent of the oxazoline ring were designed and prepared. With these ligands, up to 94% ee was obtained for the alkylation of arylaldehyde with diethylzinc.

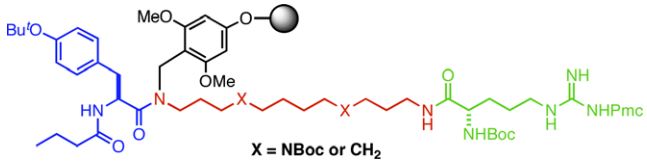


2-Chlorotritylchloride (CTC) resin was prepared efficiently from 1% DVB-crosslinked polystyrene resin and 1-chloro-2-(dichloro(phenyl)methyl)benzene. This 2-CTC resin showed excellent properties as a support for solid-phase synthesis. Four peptide fragments were obtained in high purity using the resin.

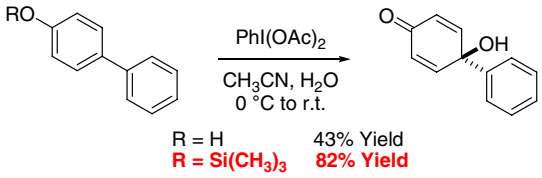


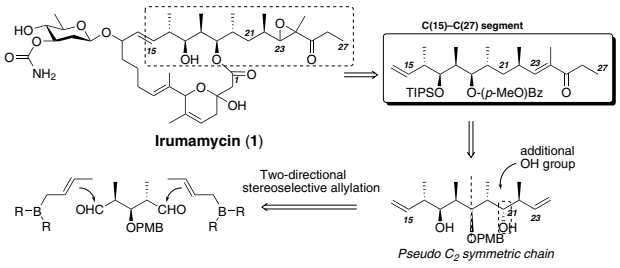


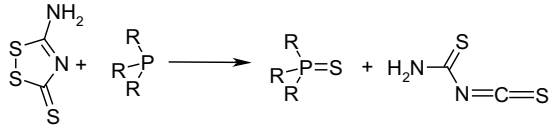


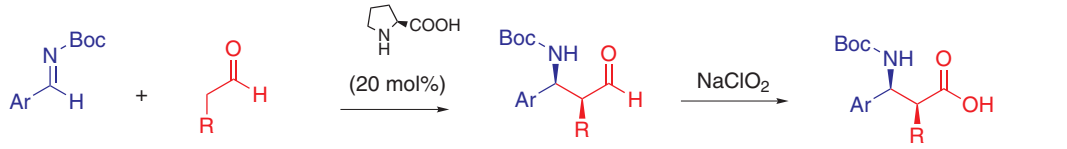


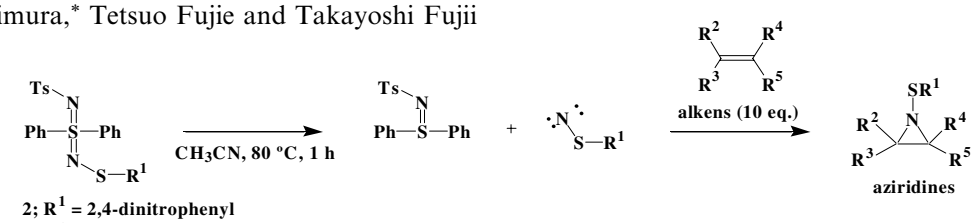
The efficient solid-phase synthesis (SPS) of novel hybrid toxins using a BAL resin is described. This strategy enables bidirectional construction of toxin molecules and has a potential in SPS of chemically diverse libraries of toxin analogues for structure–activity relationship (SAR) studies.



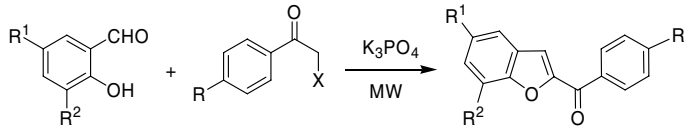


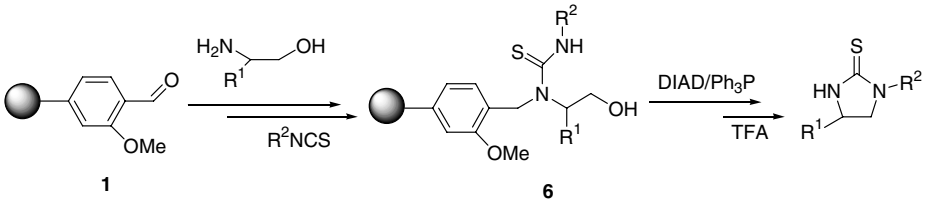






Thermolysis of *S*,*S*-diphenyl-*N*-(2-nitrophenylsulfenyl)- and *S*,*S*-diphenyl-*N*-(2,4-dinitrophenylsulfenyl)-sulfodiimides in the presence of olefins proceeded at 50–80 °C to give the corresponding deiminated *S*,*S*-diphenyl-*N*-tosylsulfimide and *N*-sulfenylaziridines in very good yields.





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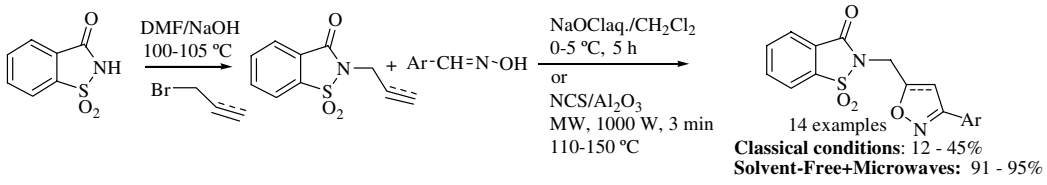

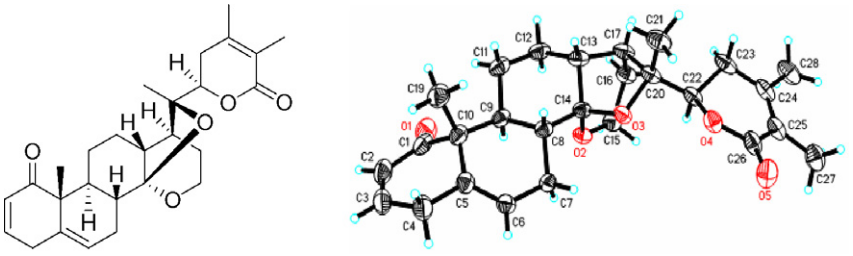

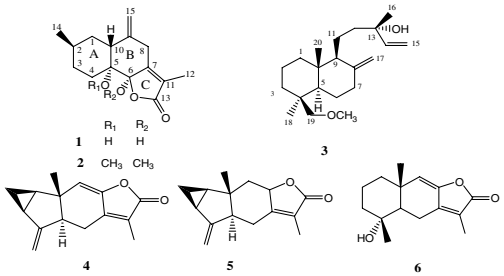

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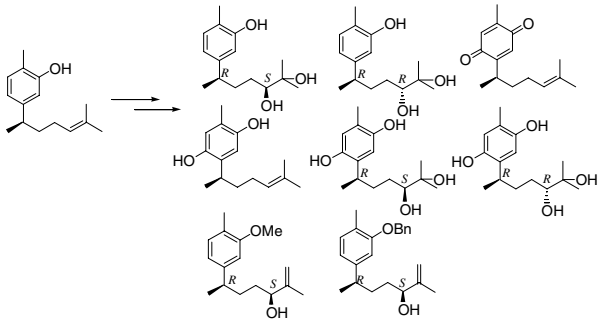
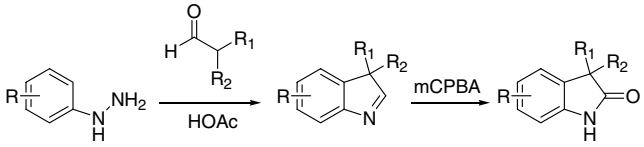
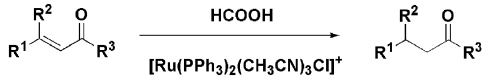
Dayejijiol (**1**), a novel sesquiterpene with a new carbon skeleton, and a novel labdane-type diterpenoid together with three known compounds were isolated.

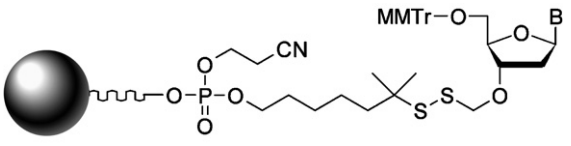




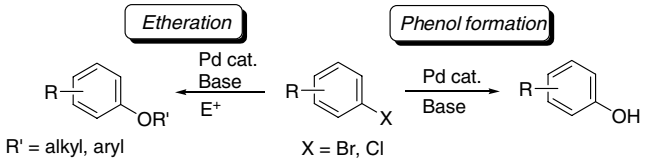


$R^1 = Ph, R^2 = H, R^3 = Ph$
$R^1 = Ph, R^2 = H, R^3 = CH_3$
$R^1 = Ph, R^2 = H, R^3 = CH{=}CH\text{-}Ph$
$R^1 = R^2 = R^3 = Me$

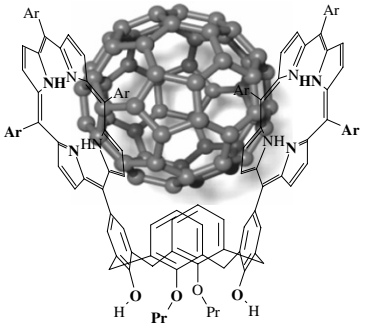
$[Ru(PPh_3)_2(CH_3CN)_3Cl][BPh_4]$ catalyzes regiospecific transfer hydrogenation of the double bond in α,β-unsaturated carbonyl compounds.

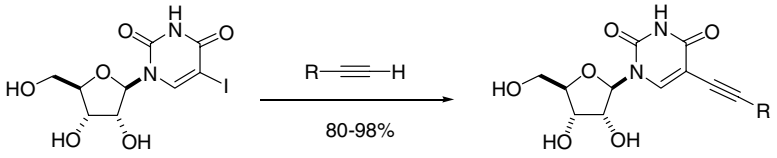


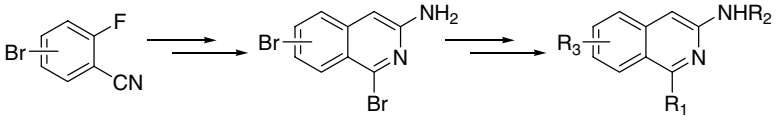
A novel linkage, useful for the synthesis of oligonucleotides is described. The linking function is compatible with all conditions used for oligonucleotide synthesis, orthogonal to all other protecting groups, but regenerates 3′-OH rapidly upon mild reduction under aqueous conditions. This method is employed in the removal of depurinated fragments during the synthesis of oligonucleotides.



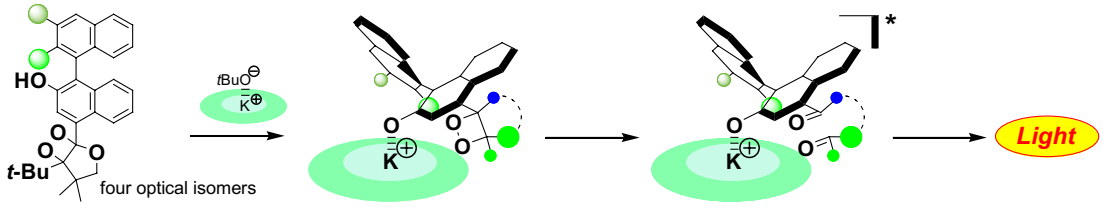
Novel calix[4]arene–porphyrin conjugates, possessing a pronounced selectivity towards fullerene C_{70}, have been prepared using several different synthetic approaches.

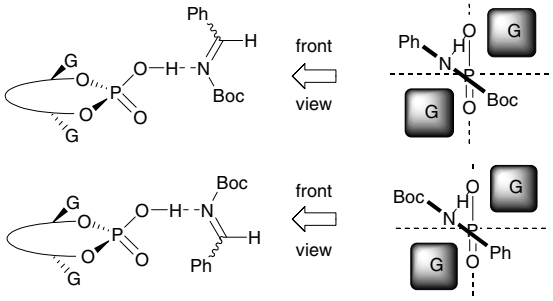






An efficient synthetic route to 1,6- and 1,7-dibromo-3-aminoisoquinoline was devised. These intermediates served as ideal templates for the preparation of 3-aminoisoquinoline analogues functionalized at C(6) or C(7).





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