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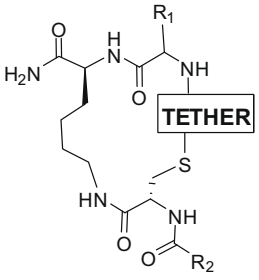
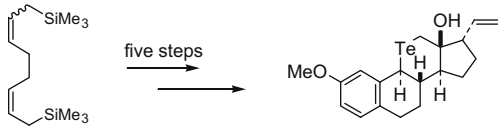
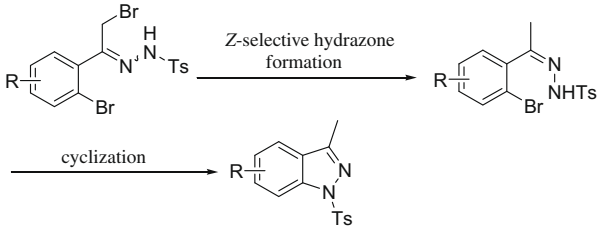
Contents

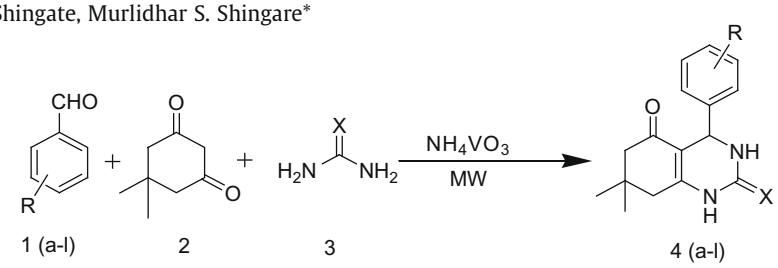
COMMUNICATIONS



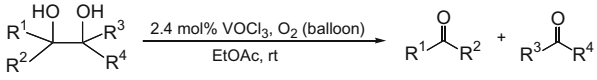


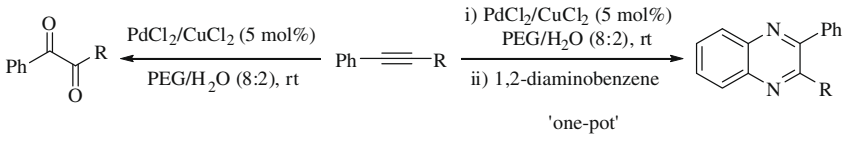
The first total synthesis of 11-tellura steroids is described.

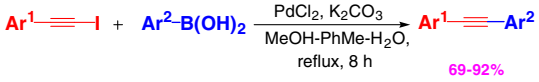


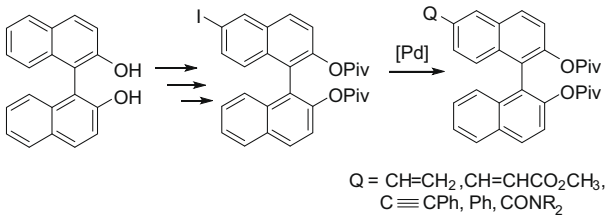


Ammonium metavanadate (NH_4VO_3) has been shown to be an inexpensive, efficient, and mild catalyst for the one-pot synthesis of octahydroquinazolinone derivatives using dimedone, urea/thiourea, and appropriate aromatic aldehydes under microwave-irradiation.

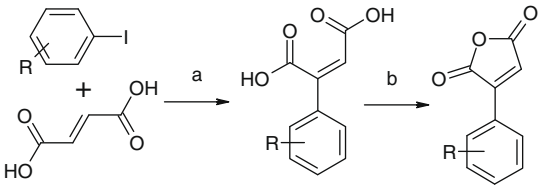




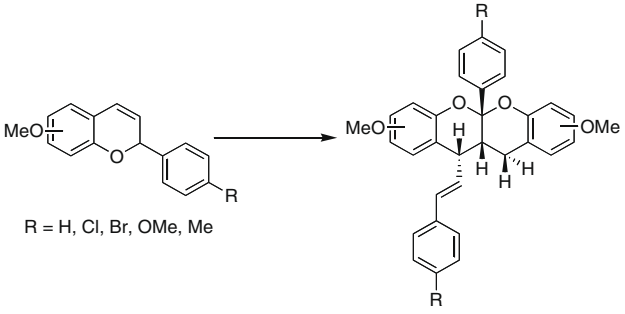


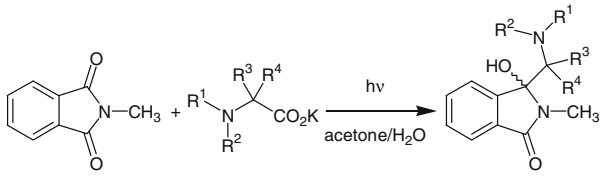


6-Iodo-2,2′-dipivaloyloxy-1,1′-binaphthyl is synthesized in three steps from dihydroxy-1,1′-binaphthyl in 88% overall yield and is shown to be a highly reactive substrate in various Pd-catalyzed coupling reactions.

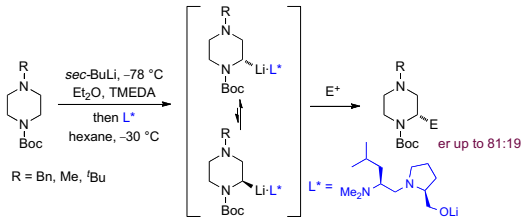


(a) $PdCl_2$ (0.4 mol%), Ph_3P (1.6 mol%), K_2CO_3, DMF-H_2O 100 °C, 2.5-48 h
(b) 200-300 °C, 0.5-2 Torr or Ac_2O, 100 °C, 0.5 h

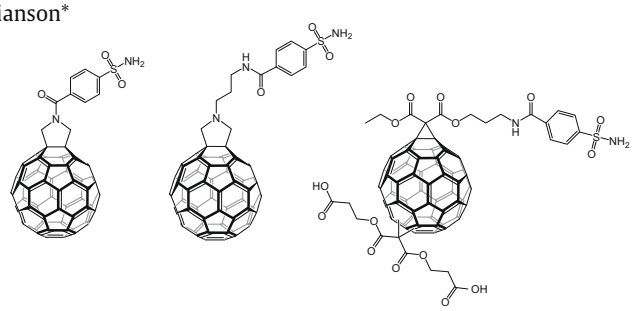




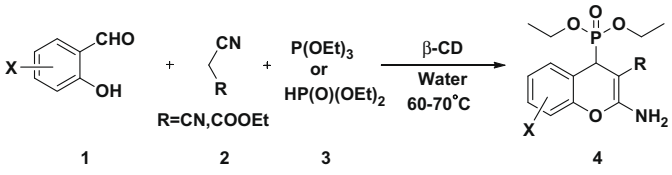
Photoreactions involving N,N-dimethylated α-amino acid salts and *N*-methylphthalimide are dominated by photoreduction and acetone trapping. Only *N*-phenyl glycinate underwent photodecarboxylative addition in a moderate yield of 30%. In contrast, N-acylated α-amino acid salts readily gave addition products in fair to high yields of 20–95%. Comparison experiments with *N*,*N*-dimethylacetamide and amino-/amido-containing phthalimides revealed the origin of the crucial electron-transfer step and the reactivity order NR_3 » RCO_2^- ⩾ $RCONR_2$ was established.

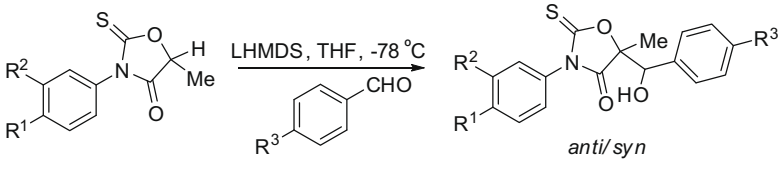


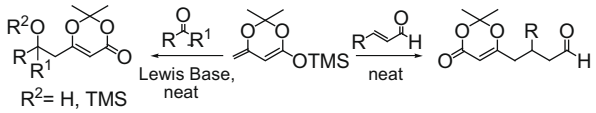
Deprotonation of *N*-Boc-*N′*-alkylpiperazines and dynamic thermodynamic resolution (DTR) with a chiral ligand gave, after electrophilic quench, 2-substituted *N*-Boc-*N′*-alkylpiperazines with moderate yields and enantioselectivities.

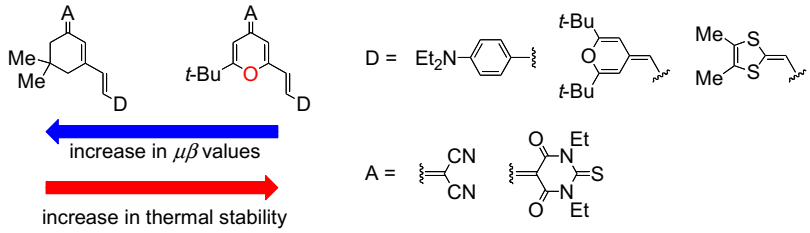


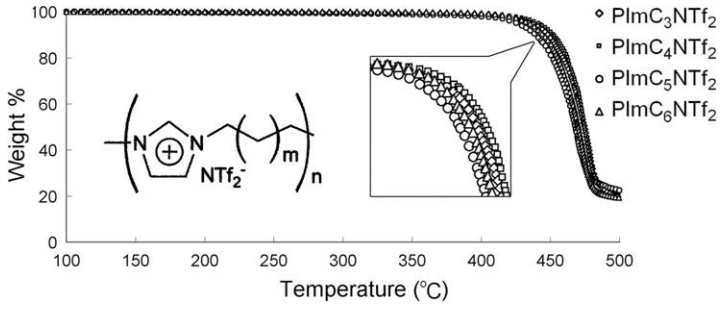
Synthesis of C_{60}–benzenesulfonamide conjugates is reported. The strategies for improving their water solubility, as required for binding to human carbonic anhydrase II, are discussed.



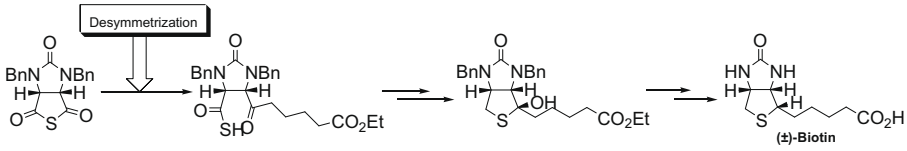




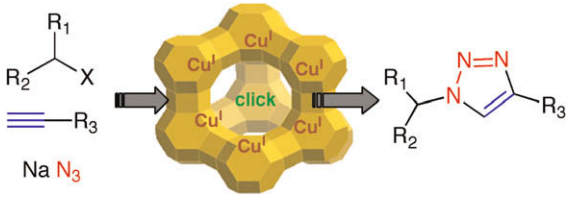




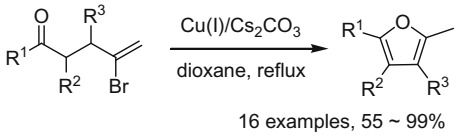
Thermal gravimetric analysis of the proposed polymerized ionic liquids.

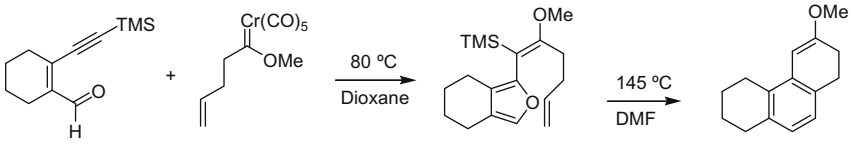


A concise and efficient TEA-mediated desymmetrization of *meso*-thioanhydride with 5-ethoxy-5-oxopentylzinc bromine has been developed, which affords a convenient strategy for the stereospecific total synthesis of (±)-biotin.

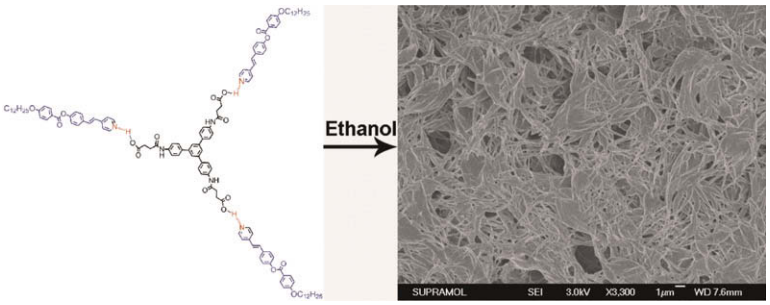


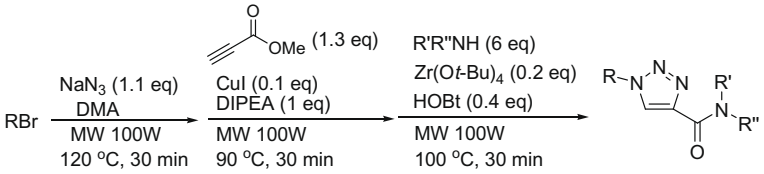
Primary and secondary halides or tosylates react with sodium azide and alkynes in a Cu^{I}-zeolite-catalyzed cascade reaction in water, directly yielding substituted triazoles in a green way.





Reaction of simple enyne aldehydes with γ,δ-unsaturated carbene complexes leads to alkene-appended furans, which undergo tandem intramolecular Diels–Alder reactions followed by dehydration in DMF solvent.





A convenient and efficient one-pot sequence has been developed for the synthesis of *C*-carbamoyl-1,2,3-triazoles from alkyl bromide under microwave irradiation.

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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