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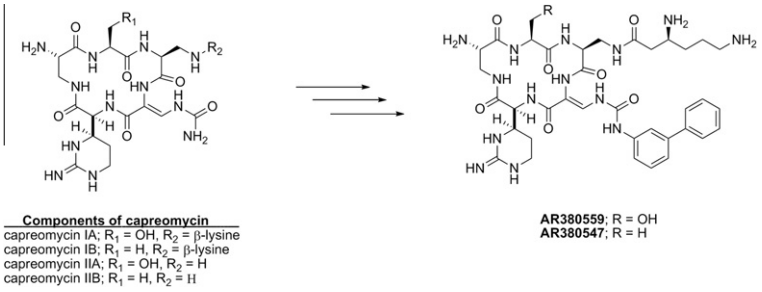
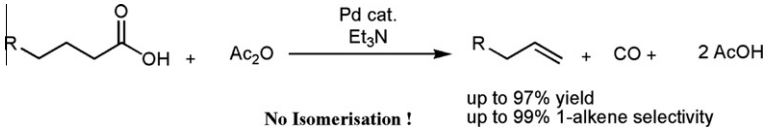
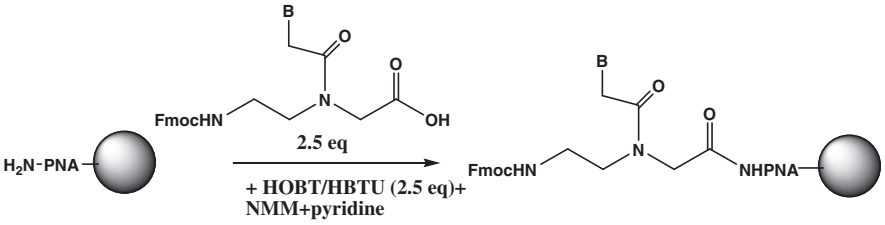
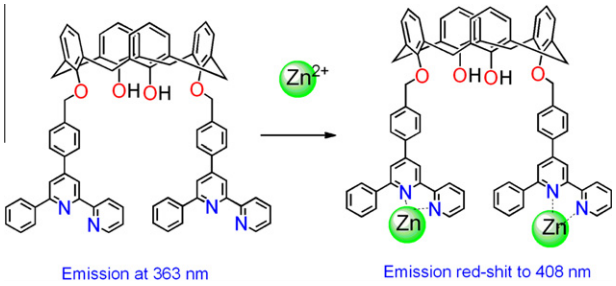
Contents

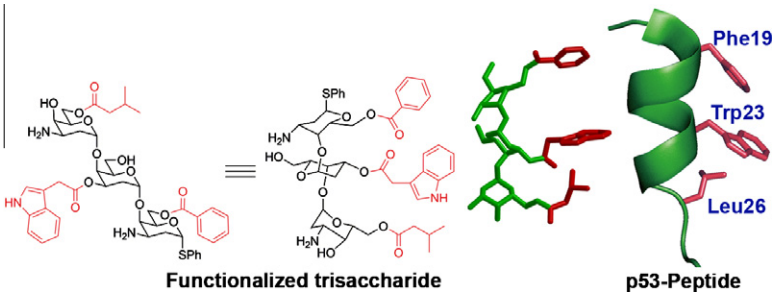
COMMUNICATIONS



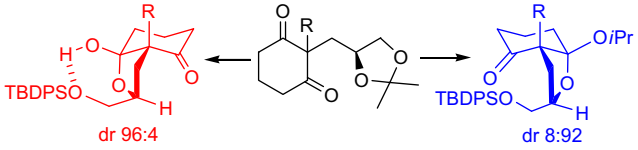




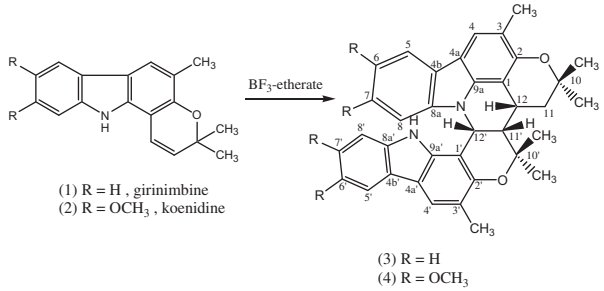




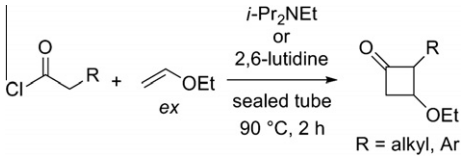
We report here the design and synthesis of functionalized trisaccharides modeled after an α-helical 15-mer peptide region of p53 which binds to its cellular regulator MDM2.



R = allyl, -$(CH_2)_2CO_2Et$, Me, Bn, (*E*)-4-acetoxy-2-butenyl



One-pot synthesis of murranimbine, a naturally occurring dimeric carbazole alkaloid and a new dimer of koenidine was described.



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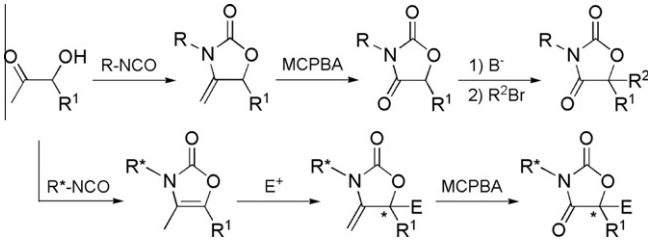
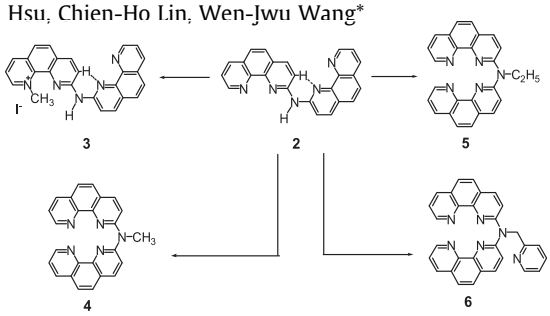
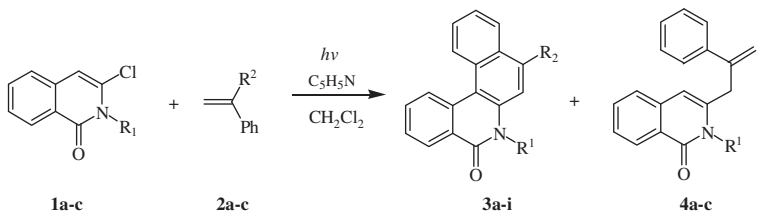
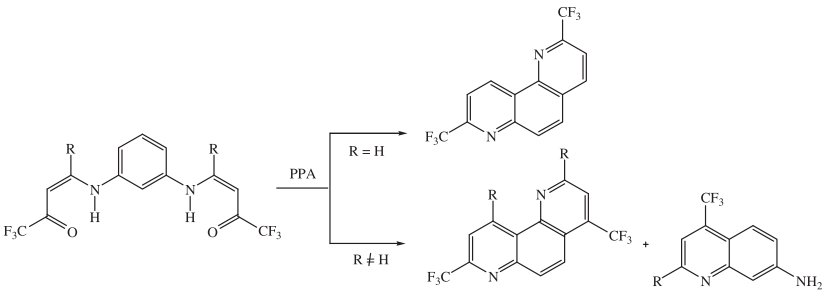




An efficient and regioselective method was developed to prepare the amino-substituted bis-1,10-phenanthroline derivatives and 1,10-phenanthrolino-N-alkylated compounds. X-ray and NMR investigations reveal the *transoid* structure for **2**, where the unusual intramolecular CH···N hydrogen bond was shown.



One-pot synthesis of benzo[*a*]phenanthridin-5-ones and benzo[*k*]phenanthridin-6-ones in fairly good yields was achieved by the photocycloaddition reactions of 3-chloroisoquinolin-1-ones and 3-chloroquinolin-2-ones with styrenes.



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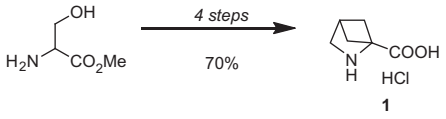
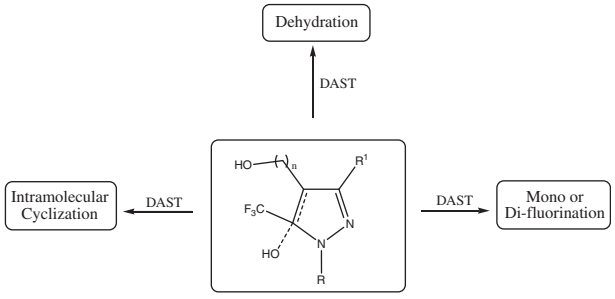
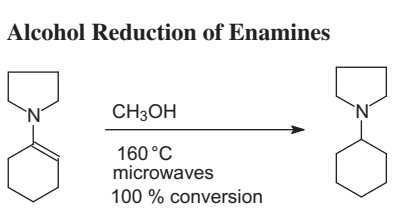
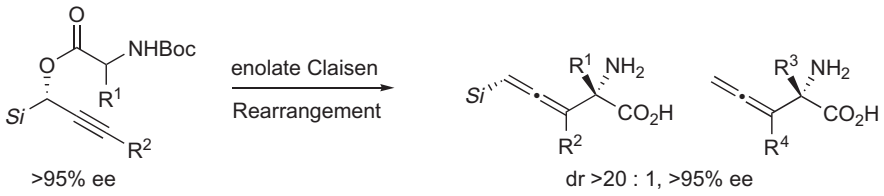
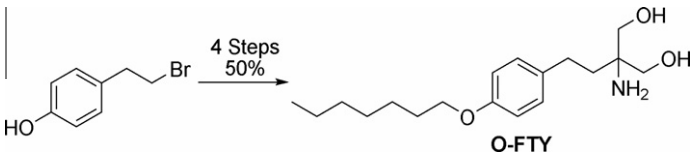


Using a modification of the route described by Clardy and Hughes et al., 2,4-methanoproline hydrochloride (**1**) was prepared in four steps and 70% overall yield from DL-serine methyl ester.

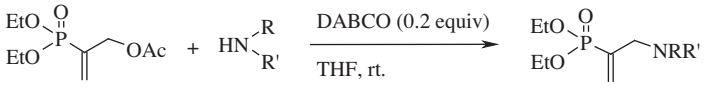


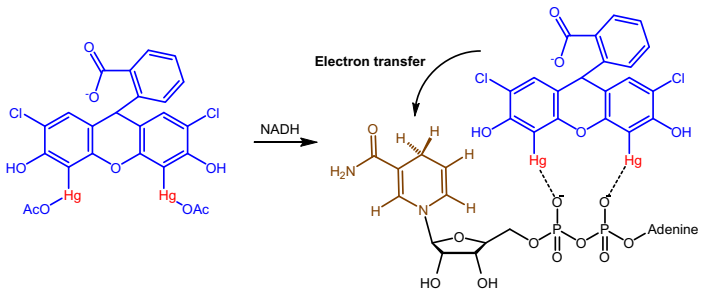


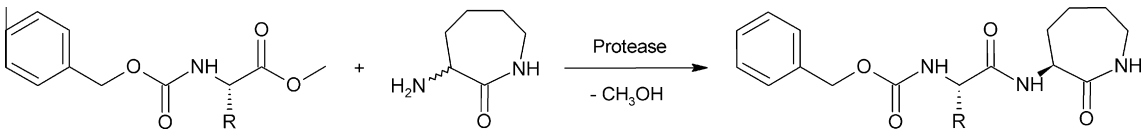


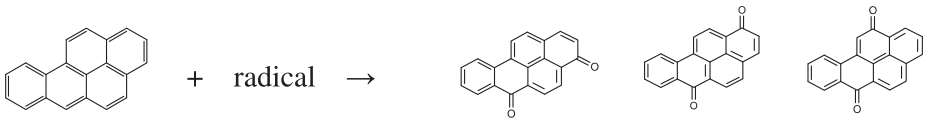


A new highly efficient optimized multigram synthesis of the ether analogue of fingolimod (FTY720) is described in four steps and 50% overall yield without a single chromatographic purification step. The synthesis route is conveniently applicable to numerous structural variations.

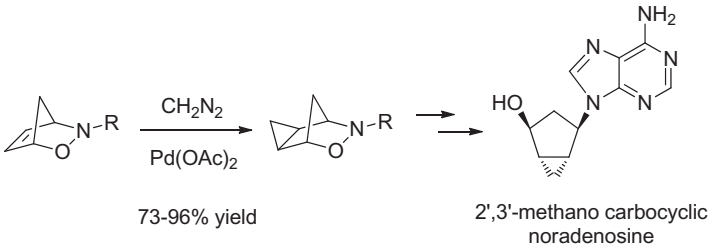


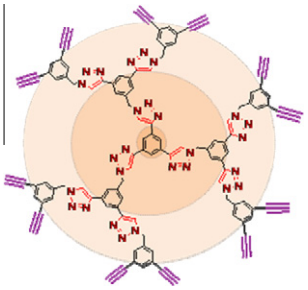


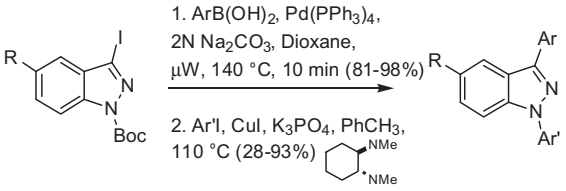


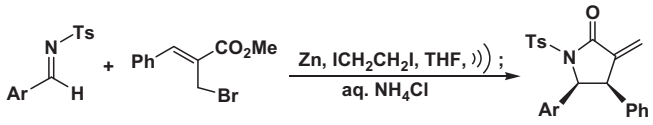


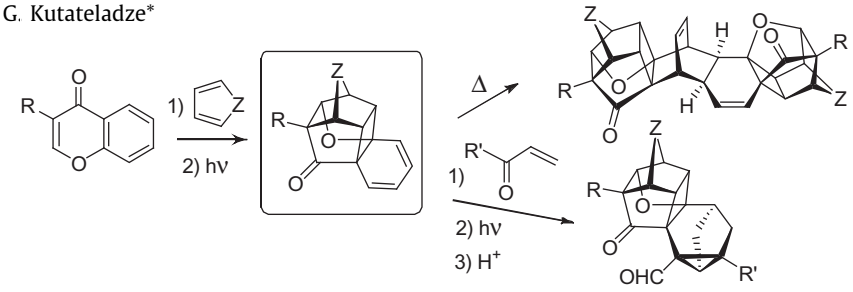
A new synthetic route toward the triphenylphosphine derivatives **1–6** possessing a pendent ethynyl substituent on peripheral aryl ring(s) is reported. All the new compounds were characterized by NMR and IR.

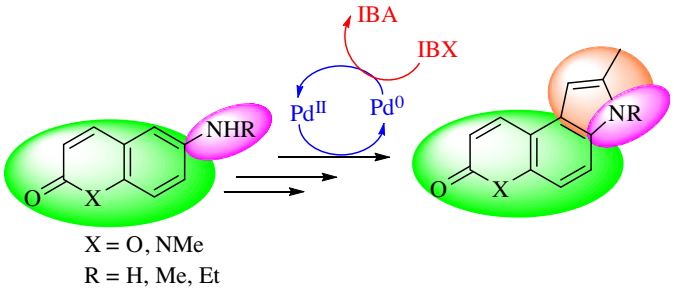


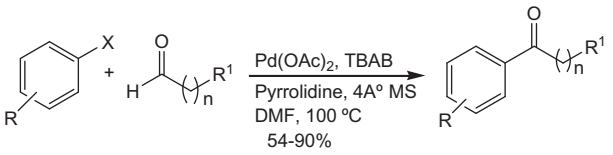




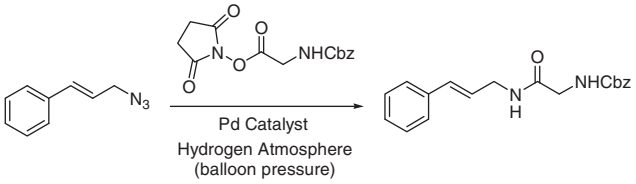


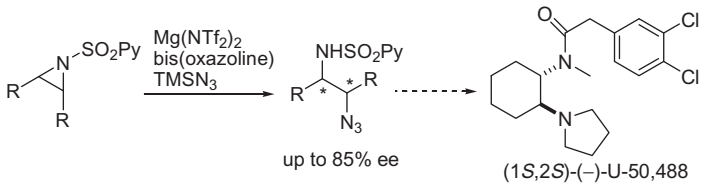


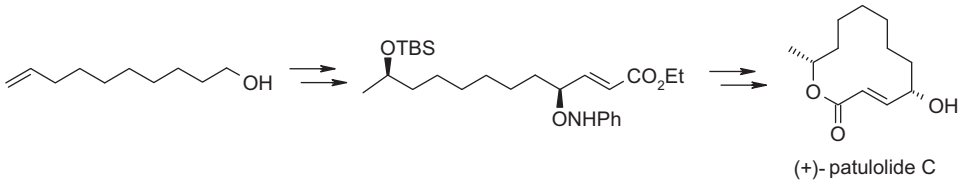


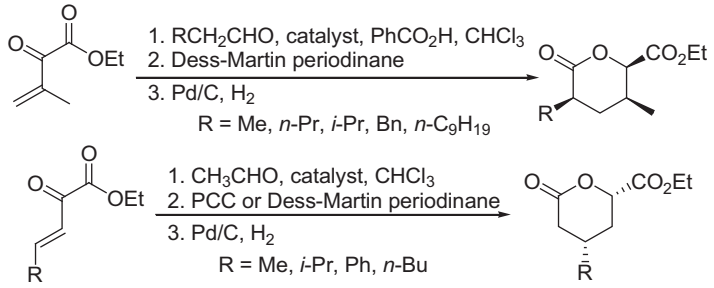


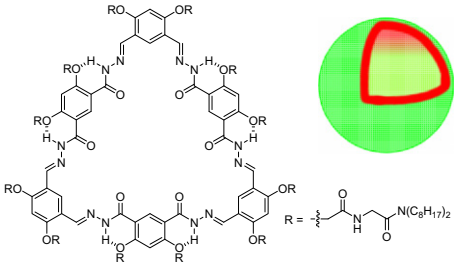
Palladium(0) nanoparticles efficiently catalyze aldehyde C–H functionalization by aryl halides to produce alkyl–aryl ketones in good yields.

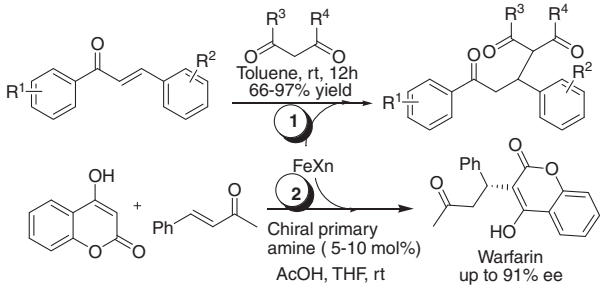


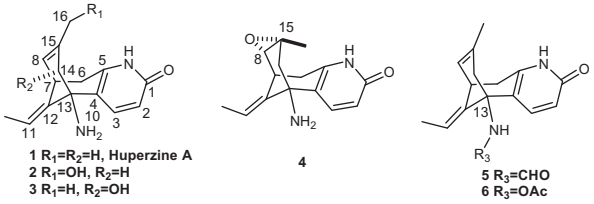


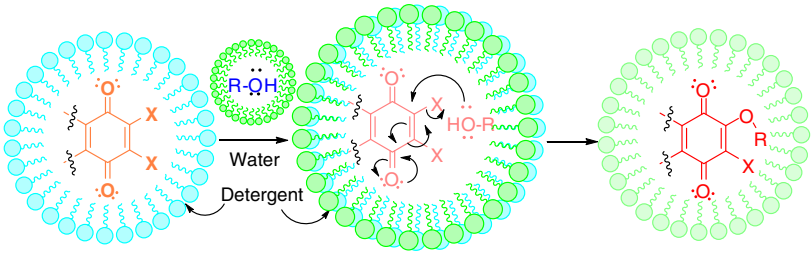


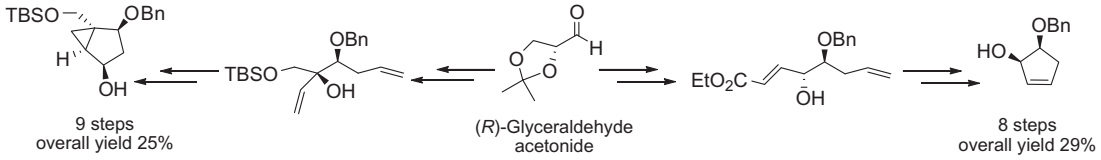


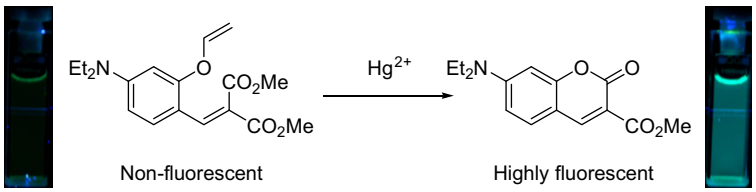




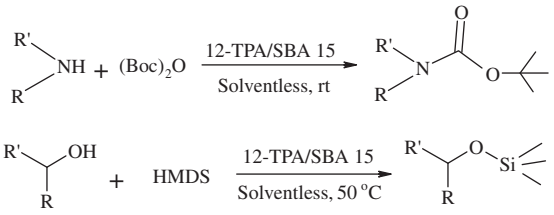




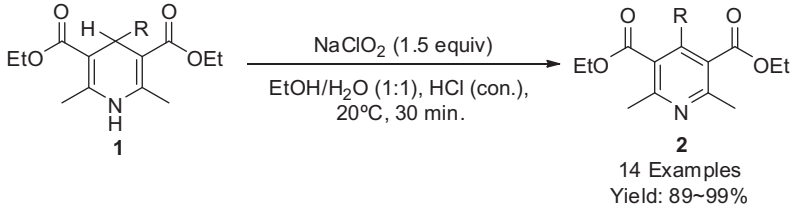




A fluorescent probe selectively senses inorganic mercury in the turn-on mode through a mercury ion-promoted hydrolysis reaction that leads to a coumarin, among various other metal species except Au(III).



A green method has been adopted for the protection of amines as *N*-Boc and alcohols as silyl ether in the presence of tungstophosphoric acid-doped mesoporous silica (SBA15).



*Corresponding author
Supplementary data available via ScienceDirect

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