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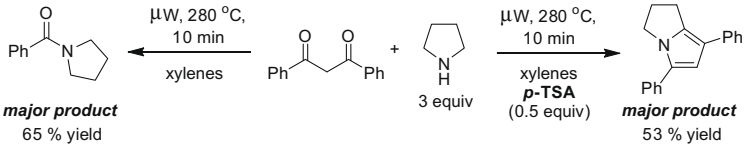
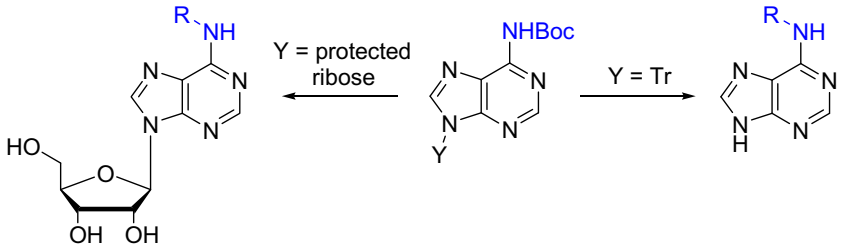
Contents

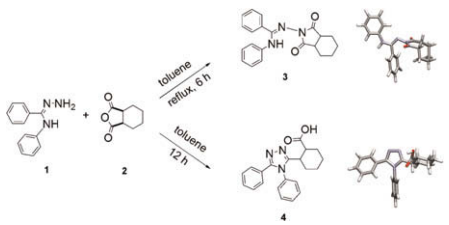
COMMUNICATIONS



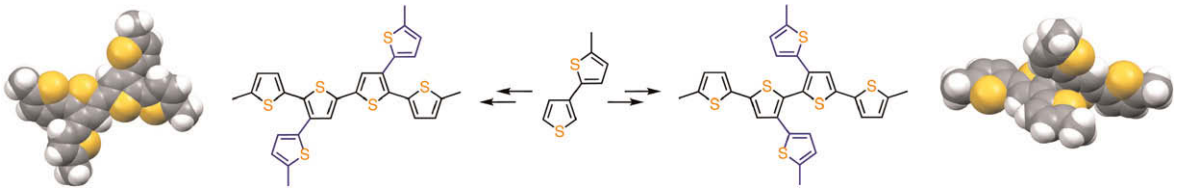
Cyclic amines and 1,3-diketones readily react under microwave irradiation to form ring-fused pyrroles in a single operation. A competing retro-Claisen pathway is efficiently suppressed by employing *p*-toluenesulfonic acid as an additive.

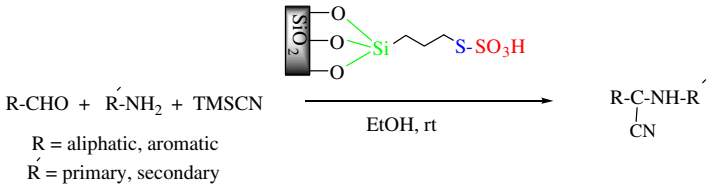


Activation of the exocyclic N6 amino group of adenine/adenosine as its Boc carbamate facilitates efficient N^6-alkylation by the Mitsunobu reaction, offering a milder alternative to the traditional nucleophilic aromatic substitution of the corresponding 6-chloropurines.

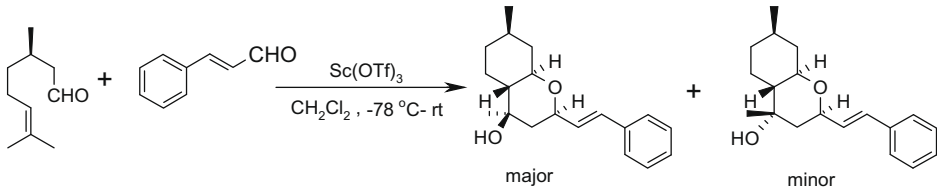


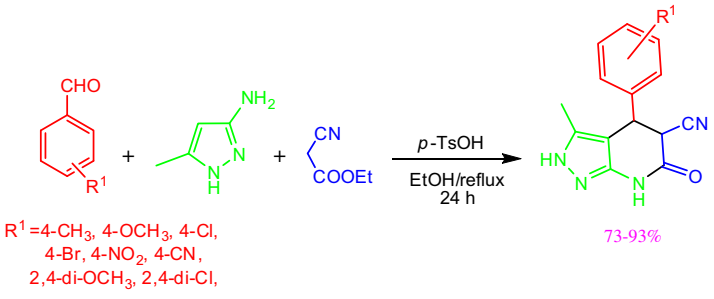
The identification of the products of the reaction of N^3-phenylbenzamidrazone with *cis*-1,2-cyclohexanedicarboxylic anhydride is carried out with the support of computational techniques.





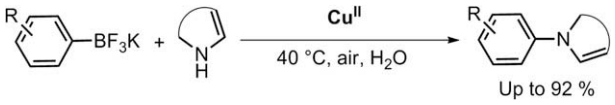
Silica-bonded *S*-sulfonic acid (SBSSA) is employed as a recyclable catalyst for the synthesis of α-amino nitriles. These syntheses were performed via a one-pot three-component condensation of aldehydes, amines, and trimethylsilyl cyanide under mild reaction conditions at room temperature.



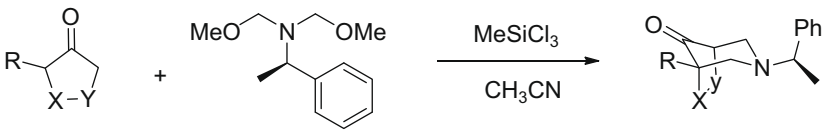


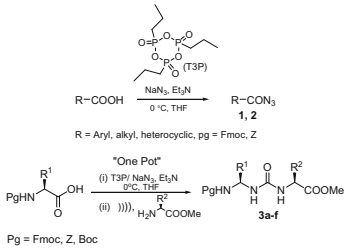
Marchantin C, a natural product from liverworts was now found to be highly active. We present the first total synthesis of this macrocyclic (bis)biarylether compound.

The reaction of resin trapped [13N]NO2- with thiols in acidic media led to the formation of the corresponding *S*-[^{13}N]nitrosothiols. Good radiochemical yields and excellent radiochemical purities were obtained through a fully automated process.

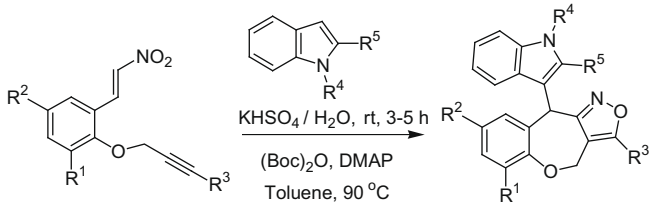


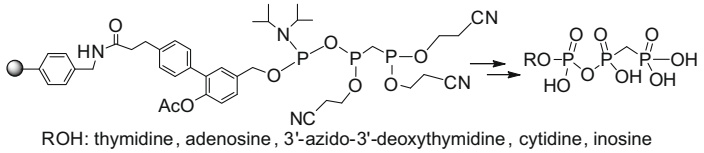
An economic, mild and efficient copper-catalyzed methodology for the N-arylation of heterocycles was optimized using potassium aryltrifluoroborates in water.



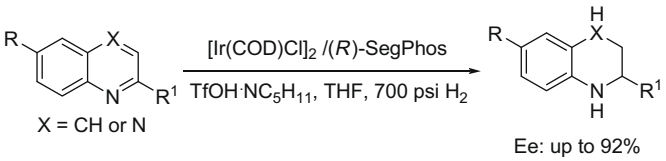


A general, mild, efficient, and environmentally benign protocol which makes use of T3P® as an acid activating agent for the direct synthesis of acid azides from carboxylic acids is described. Further, the protocol is employed for the one-pot synthesis of α-ureidopeptides starting from N-protected α-amino acids.

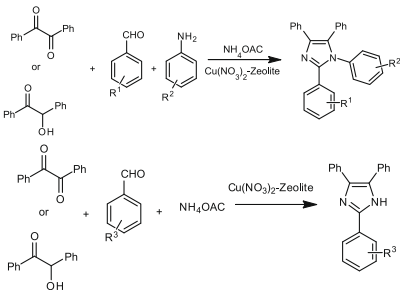




Methods for the synthesis of 5′-*O*-β,γ-methylenetriphosphate derivatives of nucleosides are described.



Enantioselective hydrogenation of quinolines and quinoxalines catalyzed by iridium/diphosphine complex with catalytic amount of Brønsted acid as activator was developed. In the presence of piperidine·TfOH as the activator, full conversions and up to 92% ee were obtained.



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Supplementary data available via ScienceDirect

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