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Tetrahedron Letters

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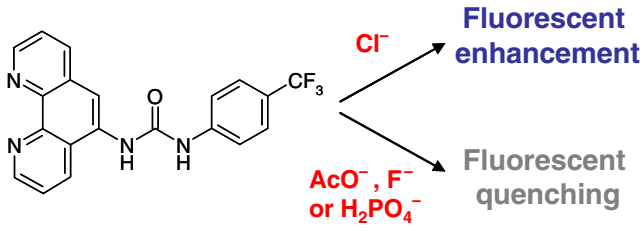
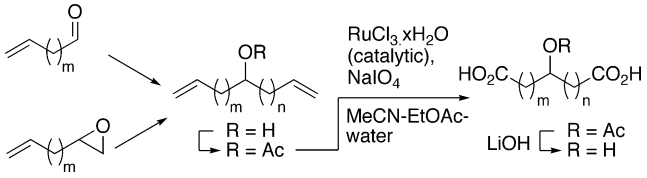
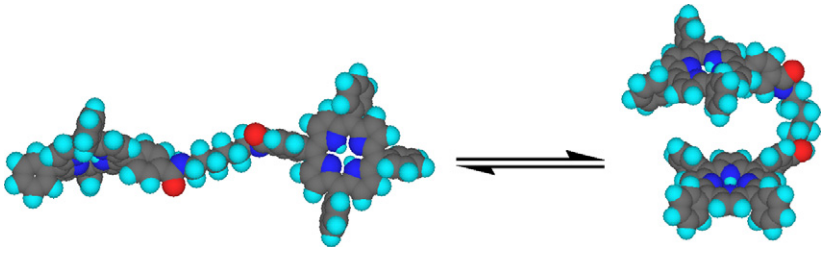
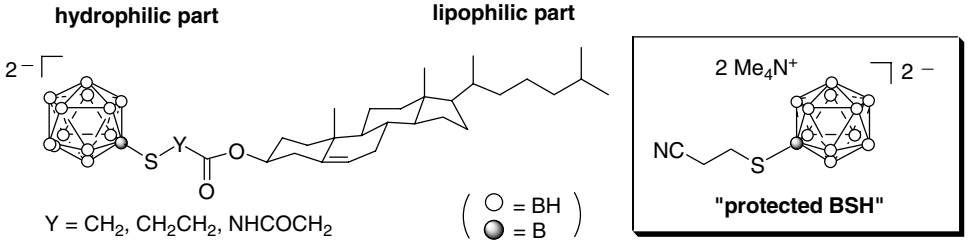
Contents

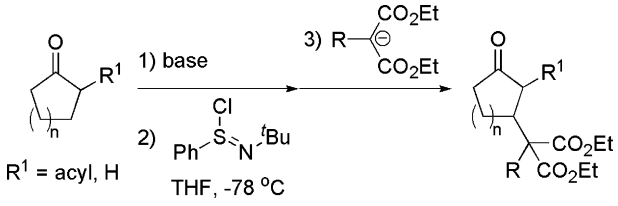
COMMUNICATIONS



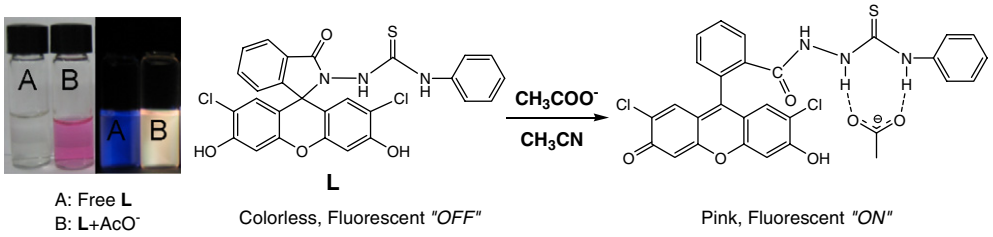


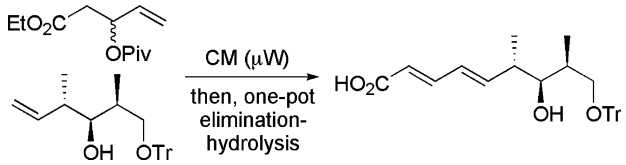


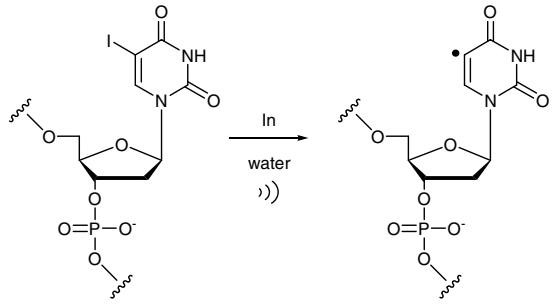


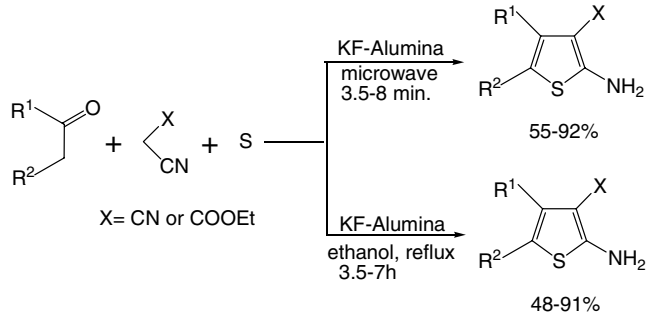


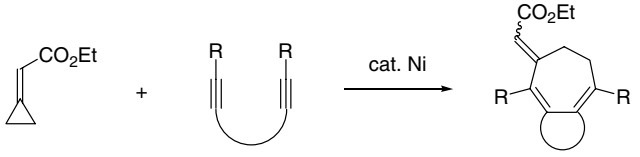
One-pot carbon–carbon bond formation at the β-position of ketones proceeded by oxidation with PhS(Cl)=N^{t}Bu followed by addition of carbon nucleophiles.

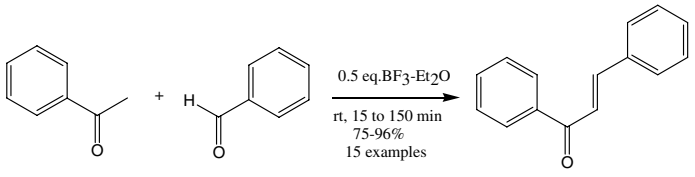


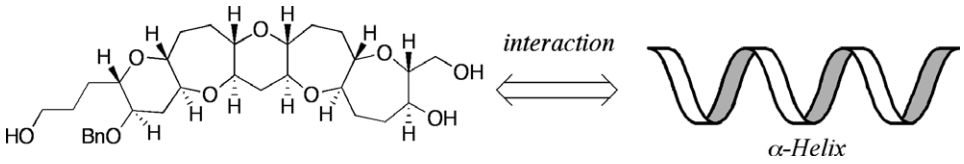


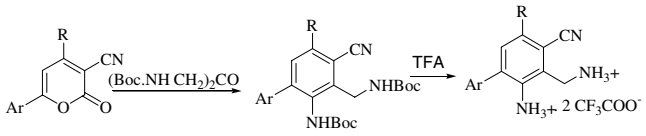


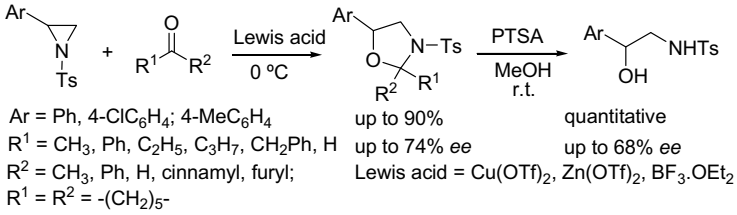


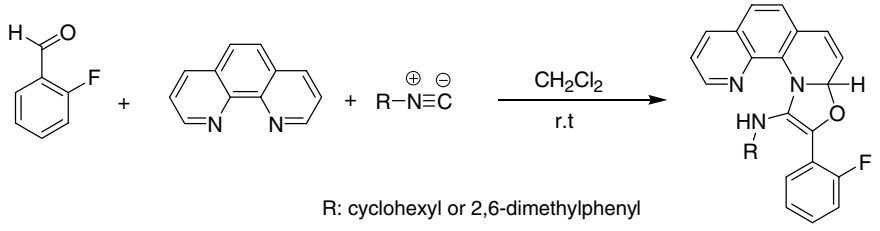


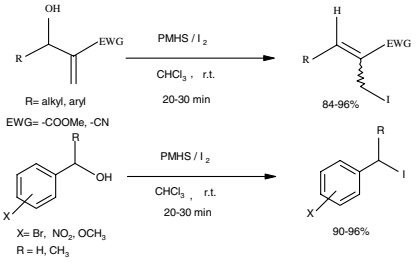


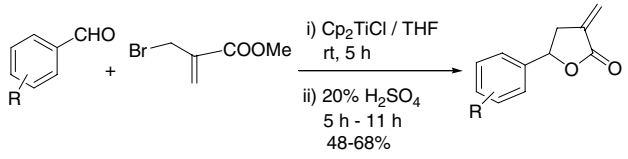


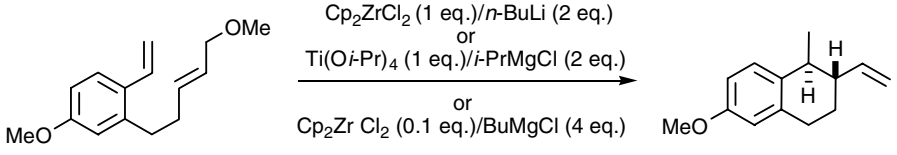


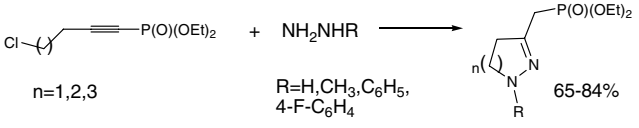


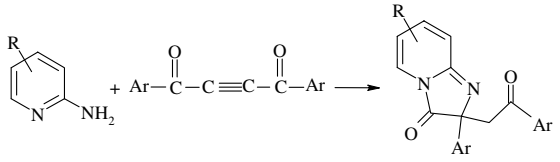


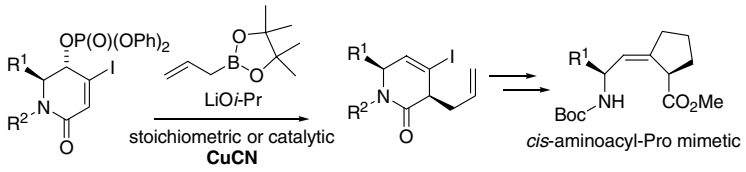


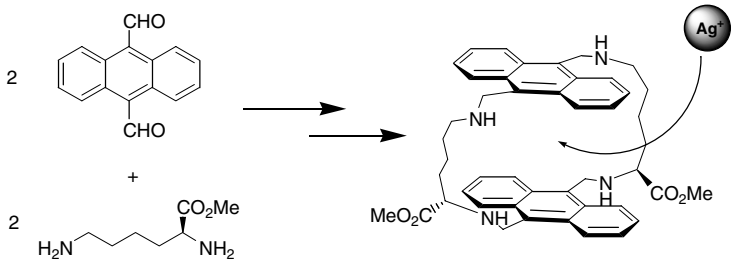


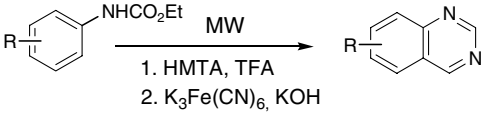


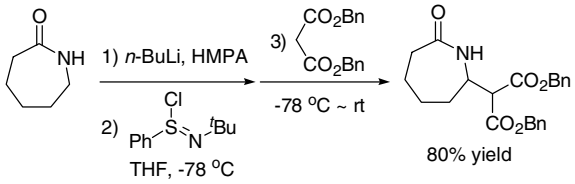




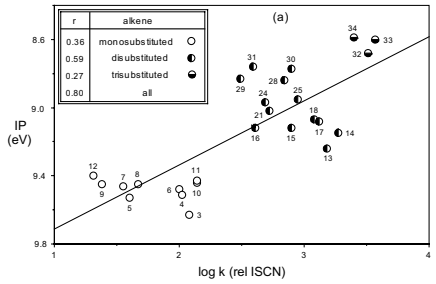




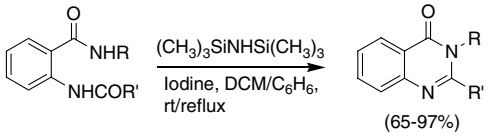




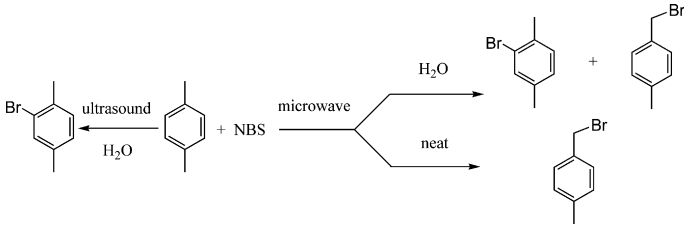
A carbon–carbon bond was directly introduced at the α-position of the nitrogen atom of lactams by oxidation with PhSCl(=N^{t}Bu) followed by the reaction with dialkyl malonates.

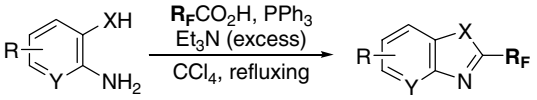


The plot of logarithms of relative rates of ISCN addition to alkenes versus alkene IPs reveals that the alkene relative reactivity depends upon both electronic and steric effects of the substituents. Relative position, size, and branching of alkyl substituents contribute to the steric effects, in addition to the degree of substitution on C=C.



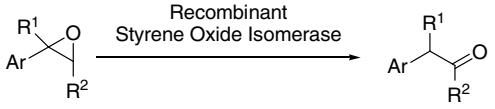
R = R' = alkyl, benzyl, aryl, peptidomimetic

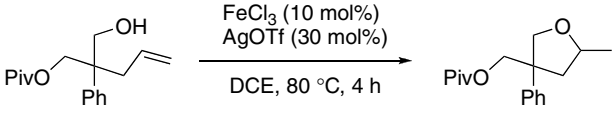




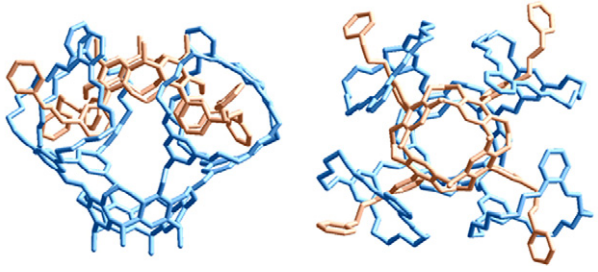
R_F = CF_3, CF_2H
X = NH, S, O
Y = C, N
R = Alkyl, NO_2, Cl

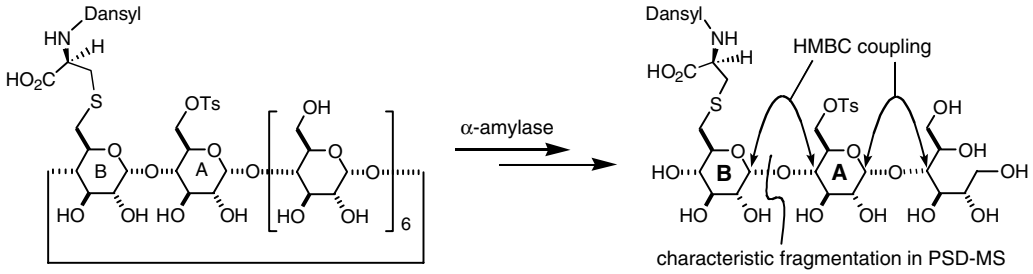
72 - 99%

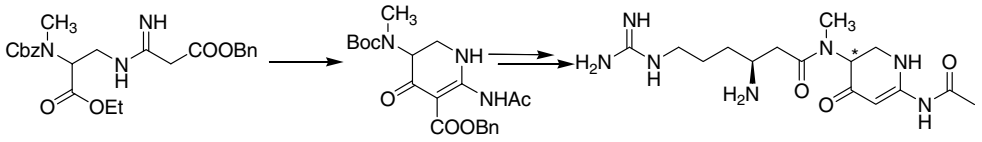




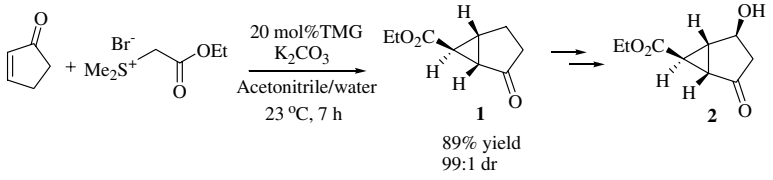
97%



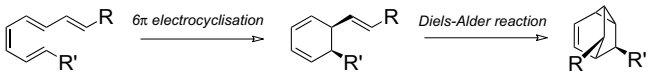




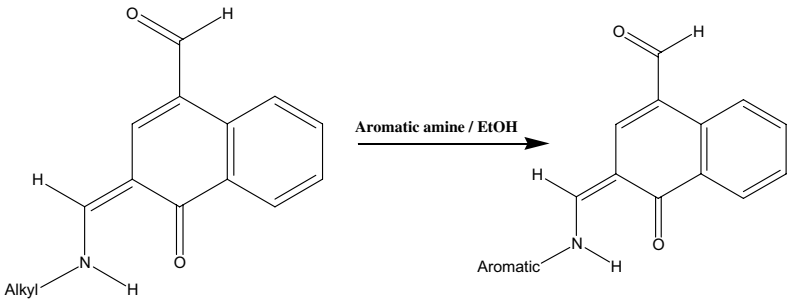
A facile construction of the 3,6-diamino-1,2,3,4-tetrahydropyridine-4-one class of compounds is described. A carbon analog at the N-3 position of TAN-1057A/B was synthesized using this approach.

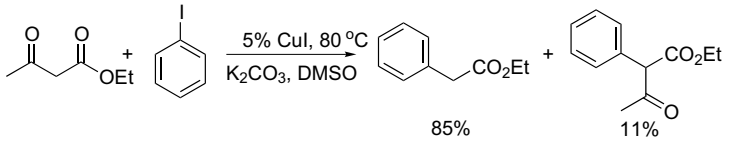


The catalytic preparation of bicyclo[3.1.0]hexane-2-one-6-carboxylic acid ethyl ester **1** is described by cyclopropanation of cyclopentenone using TMG as a catalyst in high yield and high diastereoselectivity.

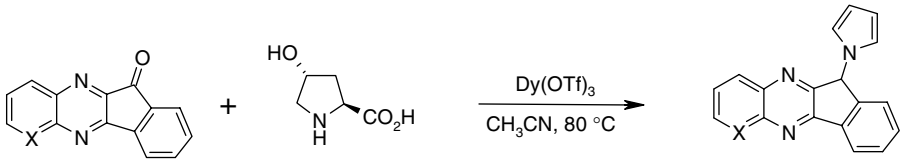


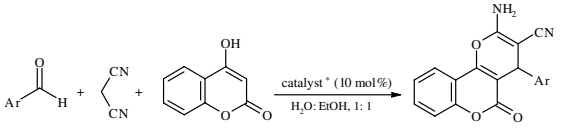
Conjugated (*E*,*Z*,*E*,*E*)-tetraenes, upon thermolysis, undergo a domino pericyclic process involving a 6π electrocyclisation followed by an intramolecular Diels–Alder reaction to give tricyclo[3.2.1.$0^{2,7}$]oct-3-enes.



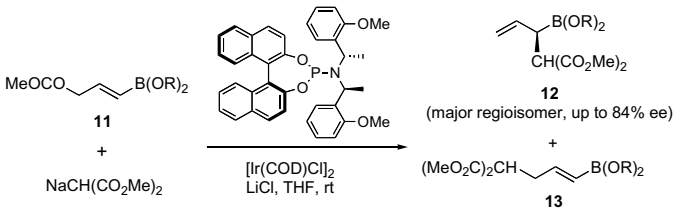


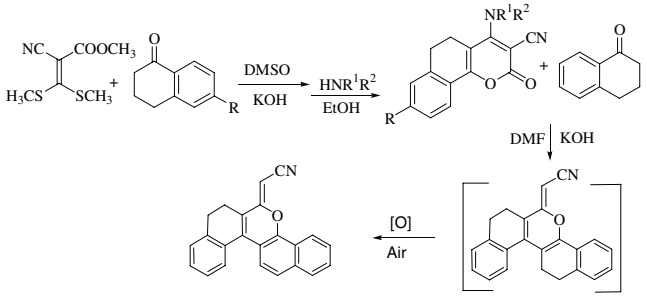
The CuI-catalysed arylation of ethyl acetoacetate in the absence of additional ligand and subsequent deacylation to prepare a number of 2-arylacetic acid esters is described.





Catalyst: A: 10 mol% diammonium hydrogen phosphate, r.t.
B: 10 mol% (*S*)-proline, reflux.





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*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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