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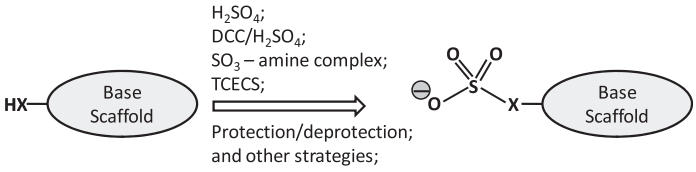
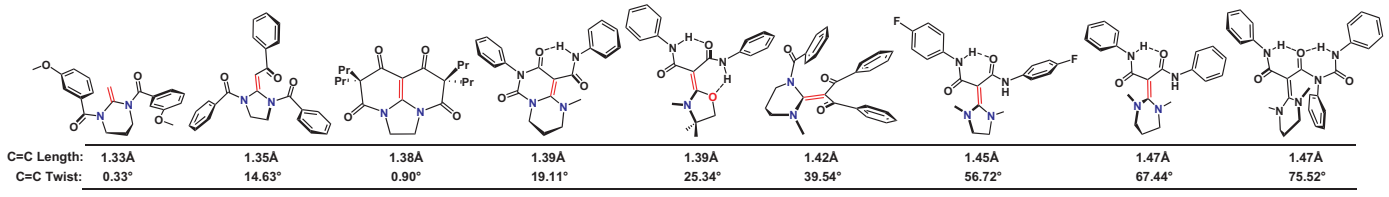
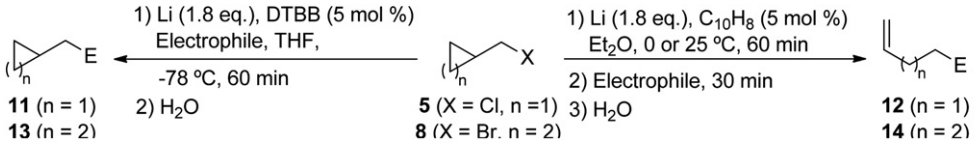
Contents

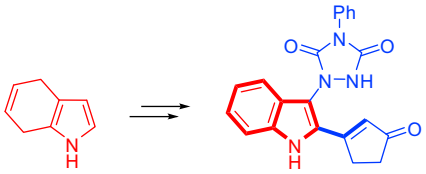
REPORT

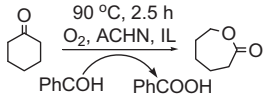


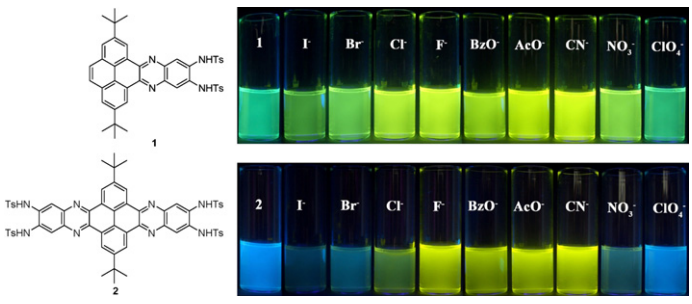
ARTICLES

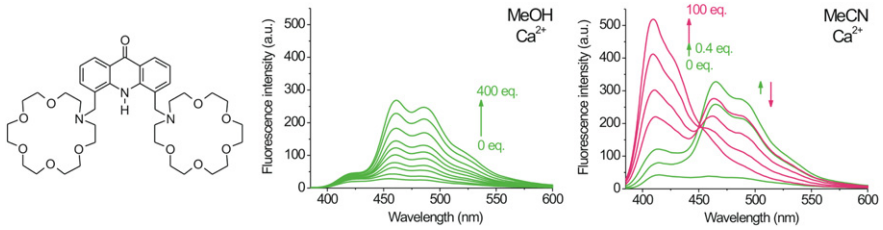


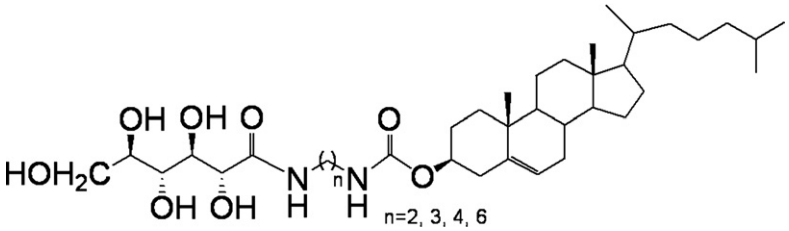


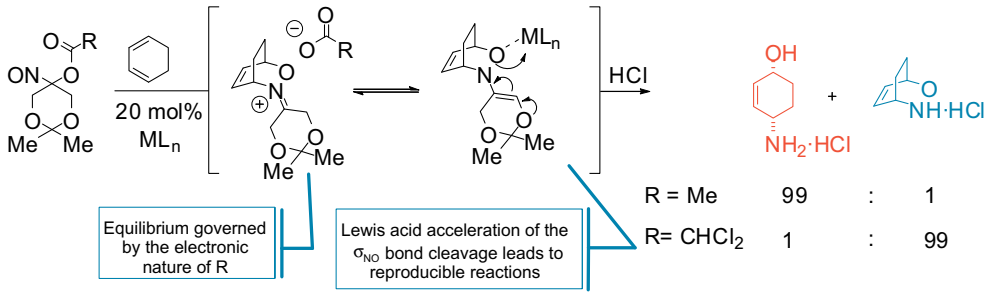


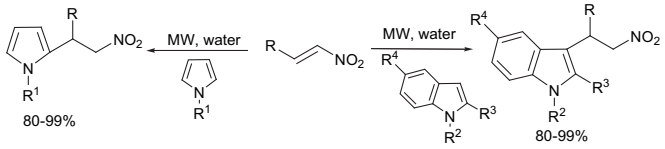


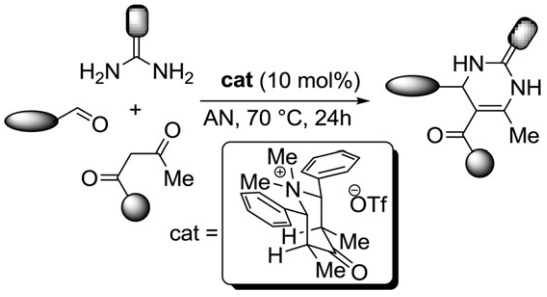


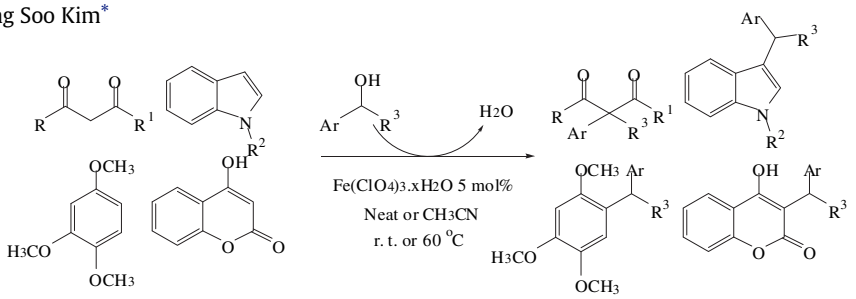




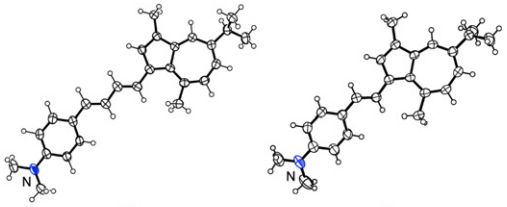






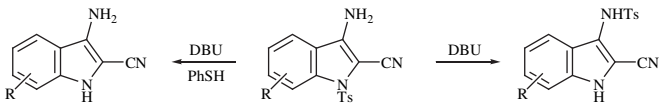


A mild and efficient $Fe(ClO_4)_3\cdot\times H_2O$-catalyzed direct C–C bond coupling reactions of 1,3-dicarbonyl compounds, electron-rich heteroarenes and arenes, and 4-hydroxycoumarin with secondary benzylic alcohols have been described.

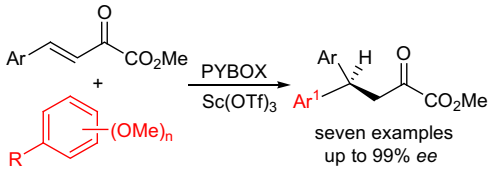


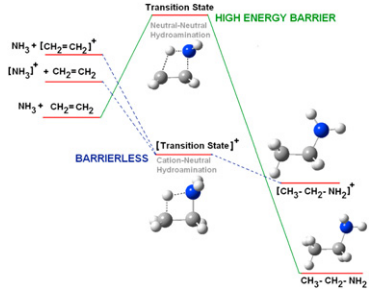
6E **12**

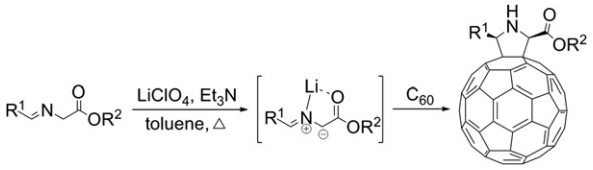
Wittig reaction of 3-[4-(dimethylamino)phenyl]propanal with (3-guaiazulenylmethyl)triphenylphosphonium bromide in ethanol containing NaOEt at 25 °C for 24 h under argon gives the title compound **6E** in 19% isolated yield. Preparation and crystal structure as well as spectroscopic, chemical, and electrochemical properties of **6E** compared with those of **12** are reported in detail.

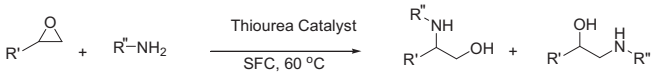


R = H, 5,6-$(MeO)_2$, 5-O_2N

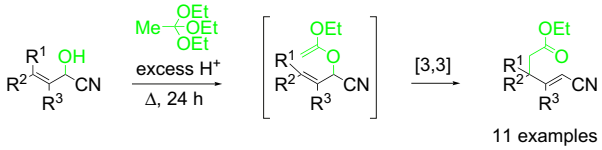




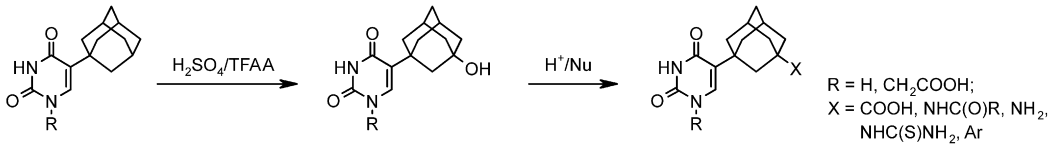


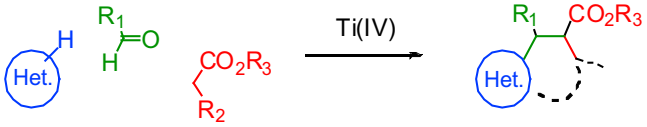


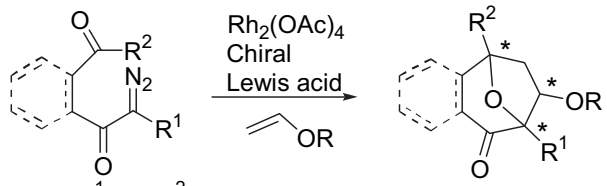
A reactant economizing method for epoxide ring opening reaction catalyzed by thiourea derivative at 60 °C is reported. DFT calculations and ^{13}C NMR provide support to the experimentally observed electronic control of regioselective epoxide ring opening.



Subjecting cyanohydrins derived from enals to standard Johnson–Claisen conditions does not lead to the desired products. We have now developed methodology for accomplishing this reaction, giving δ-ethoxycarbonyl-α,β-unsaturated nitriles in good yields.







Benzo, R^1 = H, R^2 = OMe, R = *c*-Hex: 96% ee (*endo*)
Benzo, R^1 = Acyl, R^2 = OMe, R = *c*-Hex: 73 - 97% ee (*endo*)
R^1 = H, R^2 = Alkyl and Ph, R = Bu: 75 - 84% ee (*exo*)

*Corresponding author
Supplementary data available via ScienceDirect

COVER

α-Acyloxynitroso derivatives are a class of heterodienophiles leading to valuable 1,4-*syn*-aminoalcohols in good yields starting from 1,3-dienes. The discovery that a α-oxygenated moiety led to a domino [4+2] cycloaddition/σ(N—O) bond cleavage in the presence of a catalytic amount of Lewis acid was investigated in detail, through kinetic profiling of the reaction.
Details can be found in Tetrahedron, **2010**, *66*, 2969–2980.

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