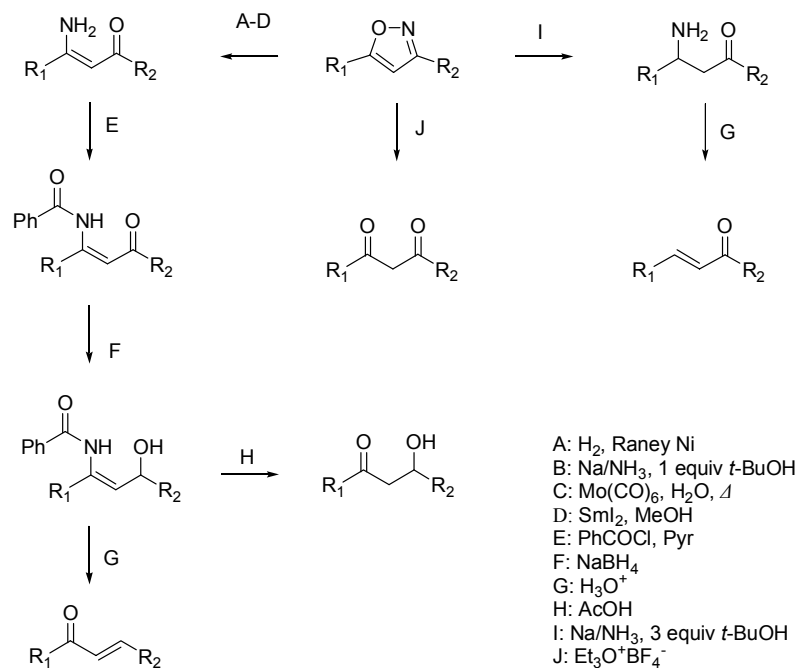
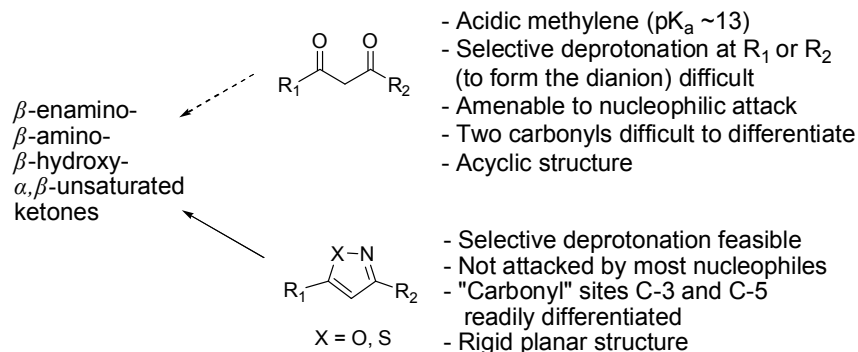
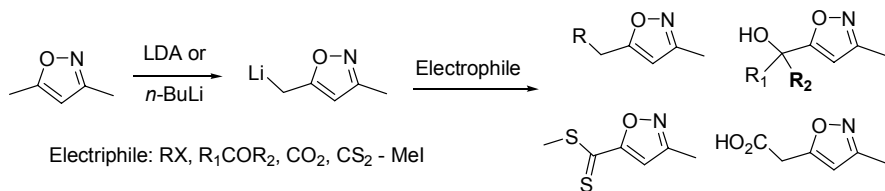


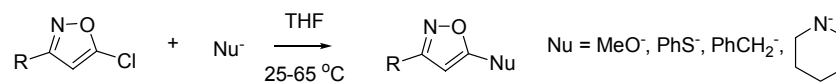
Isoxazoles-Isothiazoles vs β -Diketones

Baraldi, P. G.; Barco, A.; Pollini, G. P.; Simoni, D. *Synthesis* **1987**, 857, and references cited therein.

Isoxazole functionalization

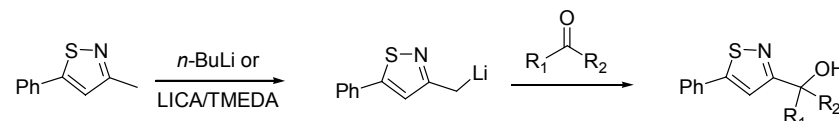


Micetich, R.; *Can. J. Chem.* **1970**, *48*, 2006.
for a review see: Natale, N. R.; Mirzaei, Y. R.; *Org. Prep. Proc. Int.* **1993**, *25*, 515-556.

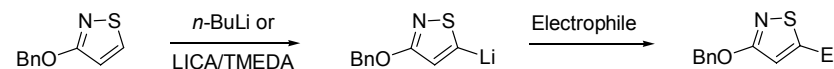


Stevens, R. V.; Albizati, K. F. *Tetrahedron Lett.* **1984**, *25*, 4587.

Isothiazole functionalization

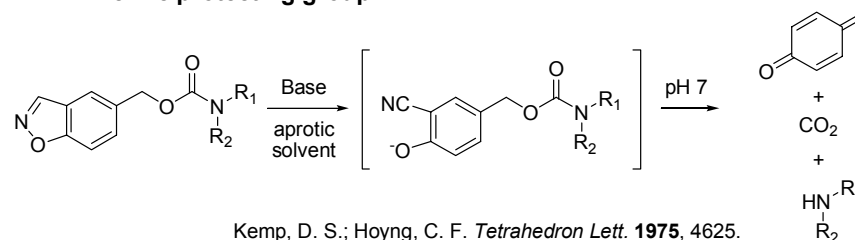


Alberola, A.; Calvo, L.; Rodriguez, M. T.; Sanudo, M. C. *J. Heterocycl. Chem.* **1993**, *30*, 537.

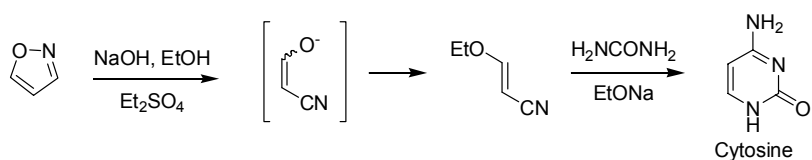
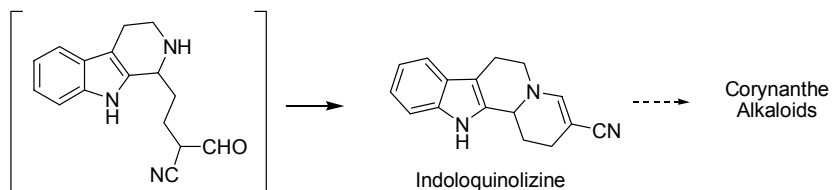
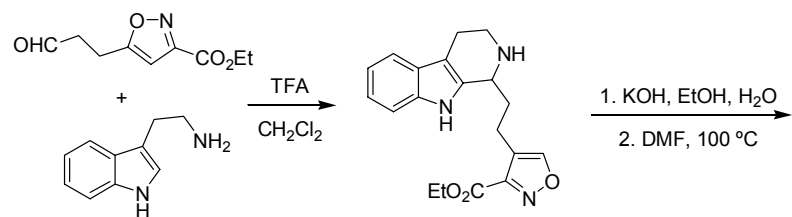
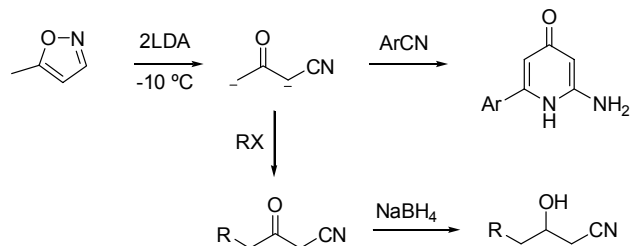
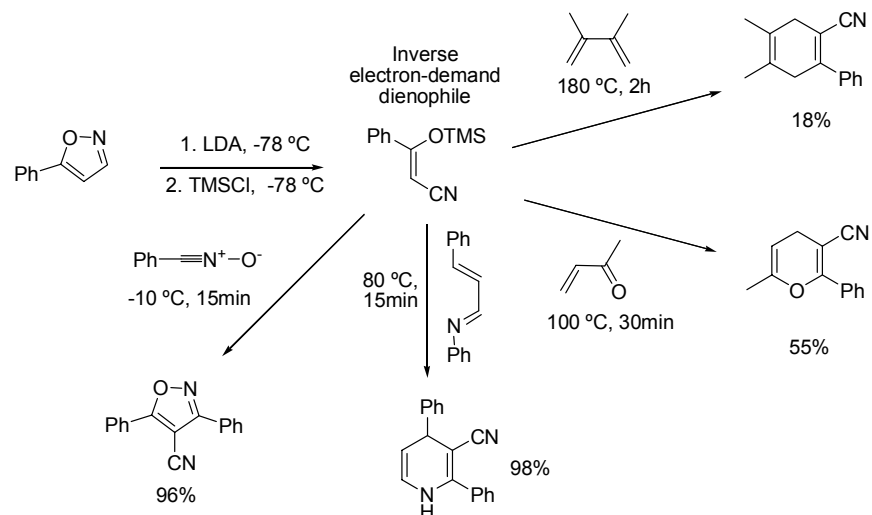


Bunch, L.; Krogsgaard L., P.; Madsen, U. *J. Org. Chem.* **2002**, *67*, 2375.

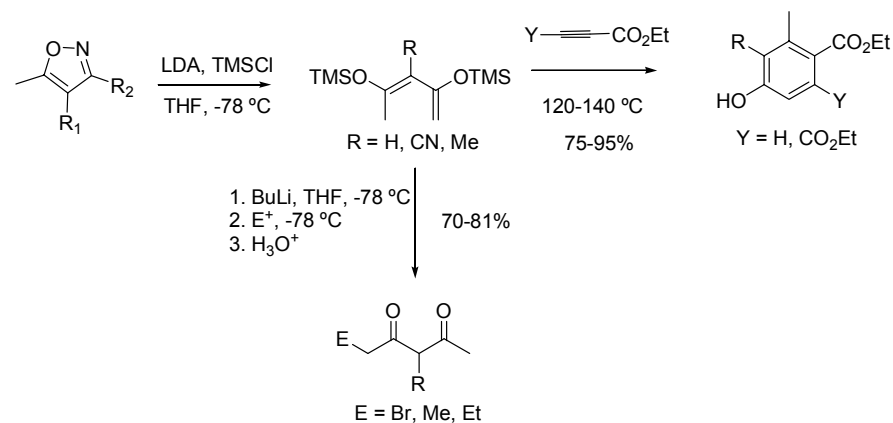
The Bic protecting group



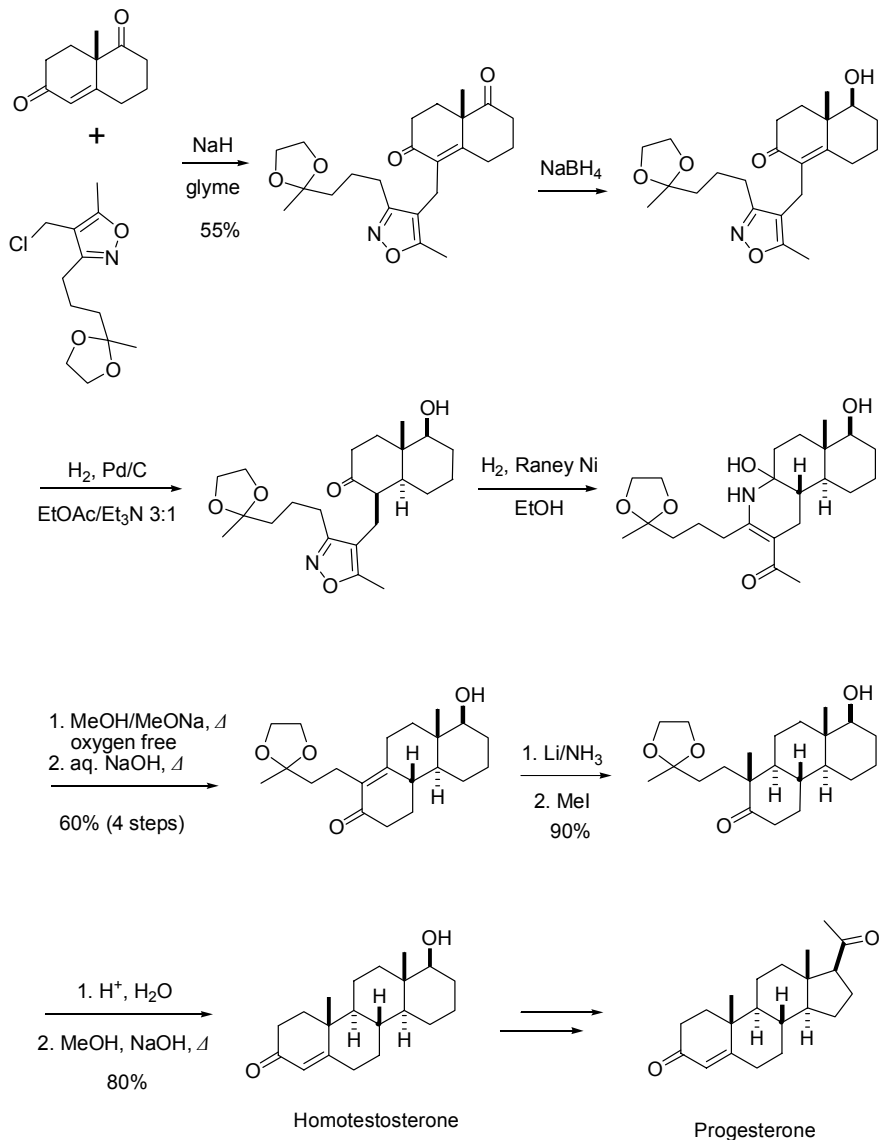
Kemp, D. S.; Hoyng, C. F. *Tetrahedron Lett.* **1975**, 4625.

Latent β -ketonitrilesTarsio, P. J.; Nicholl, L. *J. Org. Chem.* **1957**, *22*, 192.Perez, C; Janin, Y. L.; Grierson, D. S. *Tetrahedron* **1996**, *52*, 987.Vinick, F. J.; Pan, Y.; Gschwend, H. W. *Tetrahedron Lett.* **1978**, 4221.Latent β -ketonitrilesAlberola, A.; Gonzalez, A. M.; Gonzalez, B.; Laguna, M. A.; Pulido, F. J. *Tetrahedron Lett.* **1986**, *27*, 4221.

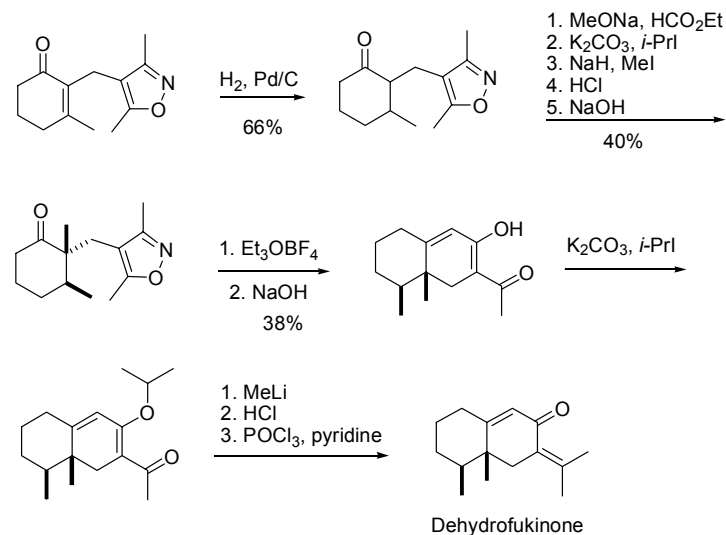
Latent siloxybutadienes

Barbero, A.; Pulido, F. J. *Synthesis* **2004**, 401.

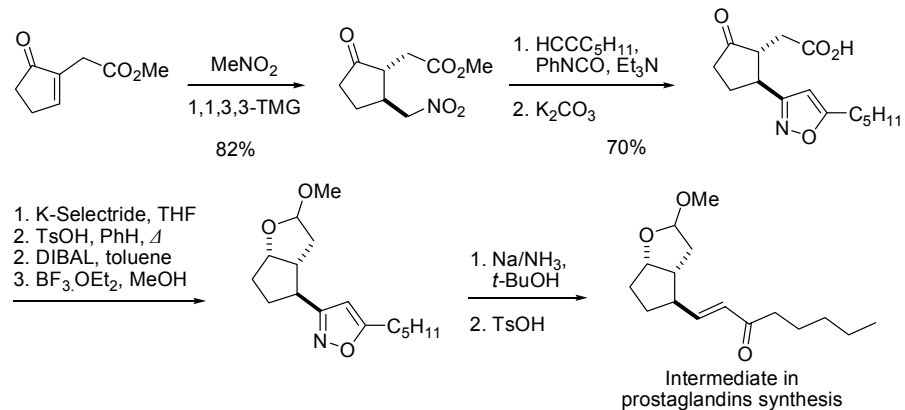
Homotestosterone -Progesterone

Stork, G.; McMurry, J.E. *J. Am. Chem. Soc.* **1967**, *89*, 5464.

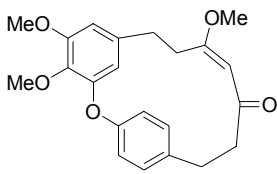
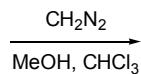
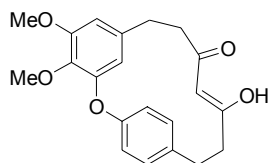
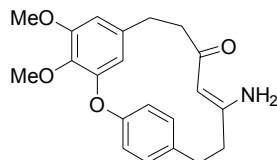
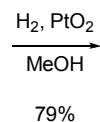
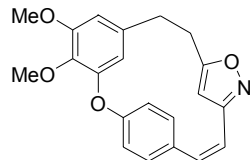
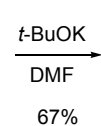
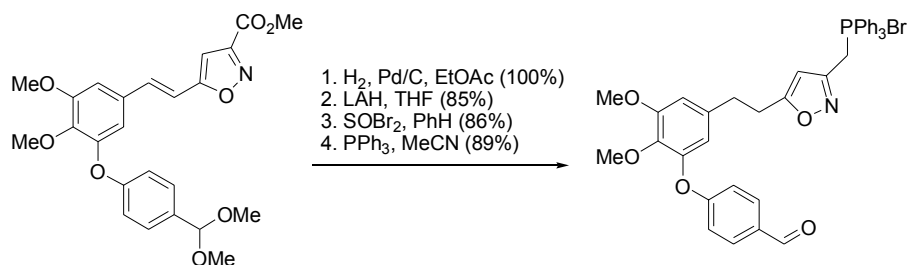
Dehydrofukinone

Ohashi, M. *Chem. Comm.* **1969**, 893.

Prostaglandins

Barco, A.; Benetti, S.; Pollini, G. P.; Baraldi, P. G.; Simoni, D.; Guarneri, M.; Gandolfi, C. *J. Org. Chem.* **1980**, *45*, 3141.

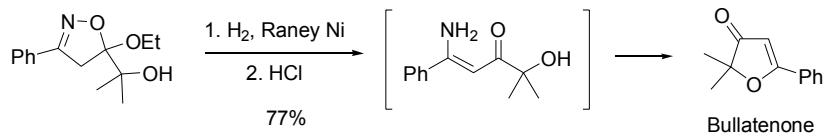
Garuganin III



Garuganin III
(+ 3 isomers)

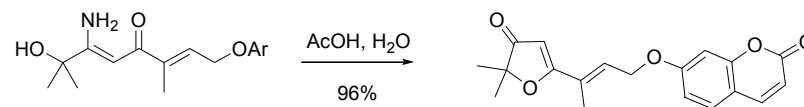
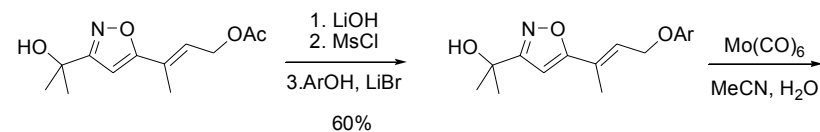
Keseru, G.M.; Dienes, Z; Nogradi, M. *J. Org. Chem.* **1993**, *58*, 6725.

3(2H)-Furanone natural products



Curran, D.P.; Singleton, D.H. *Tetrahedron Lett.* **1983**, *24*, 2079.

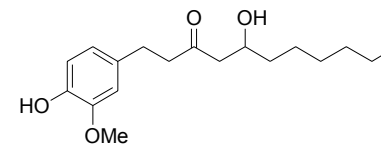
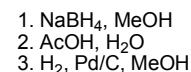
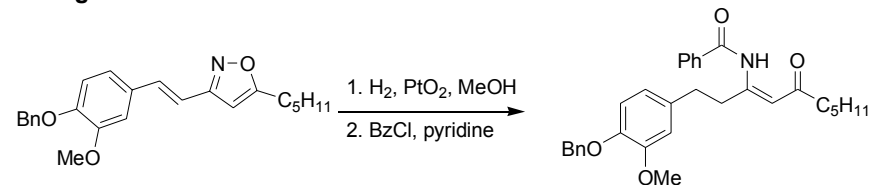
3(2H)-Furanone natural products



Geiparvarin

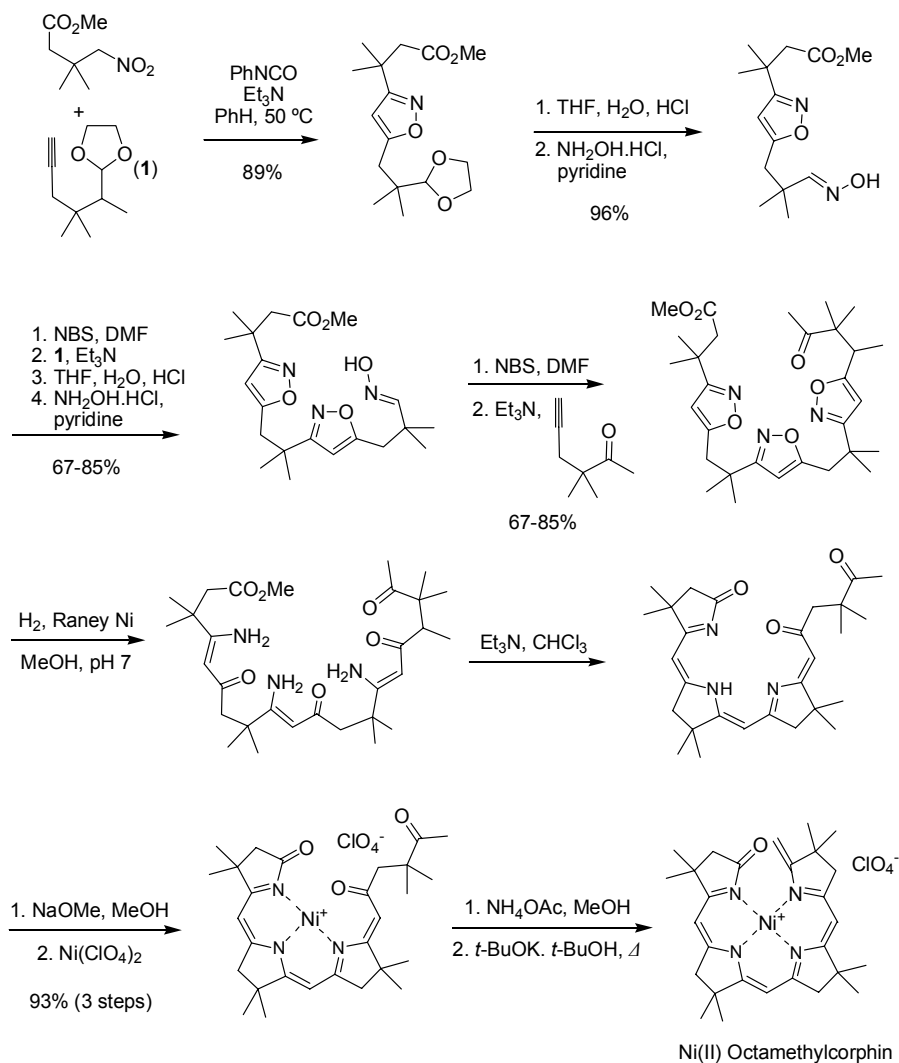
Baraldi, P.G.; Barco, A.; Benetti, S.; Guarneri, M. *Tetrahedron Lett.* **1985** *26*, 5319.

Gingerol

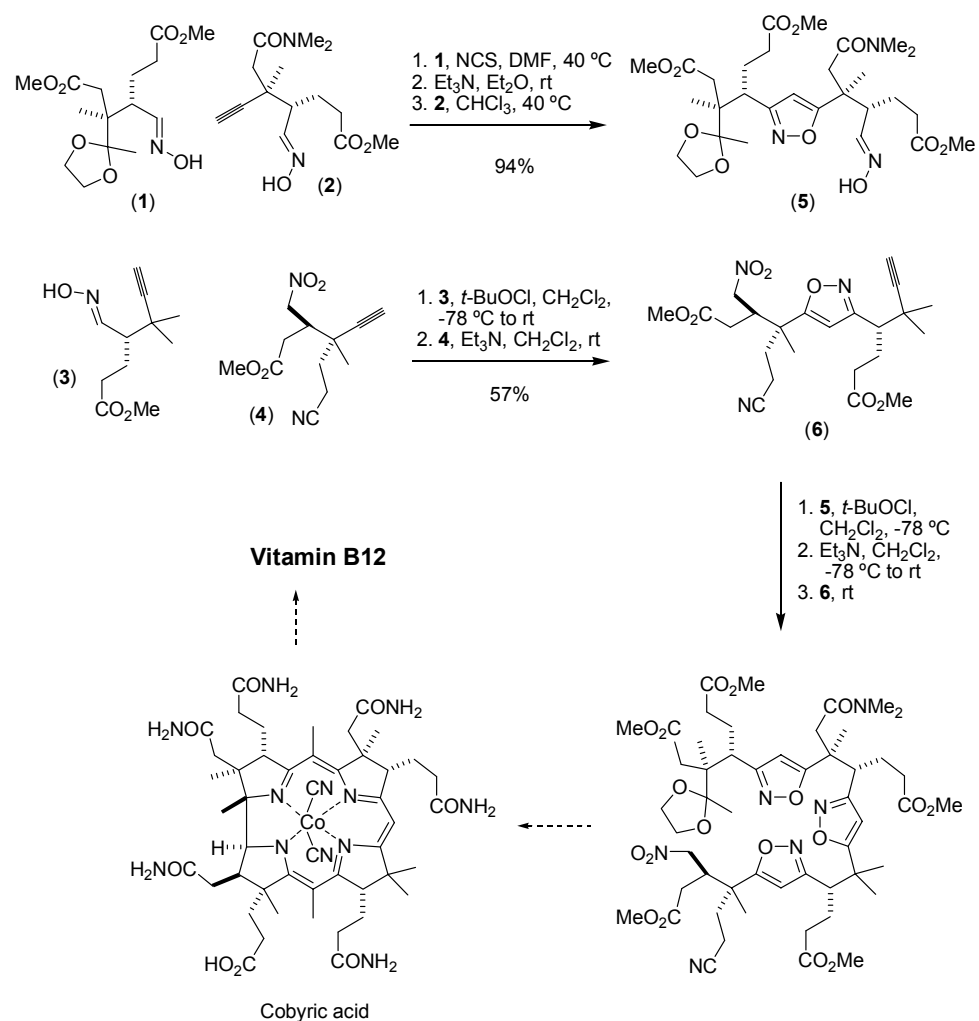


Barco, A.; Benetti, S.; Baraldi, P. G.; Guarneri, M.; Pollini, G. P.; Simoni, D. *J. Org. Chem.* **1980**, *45*, 3141.

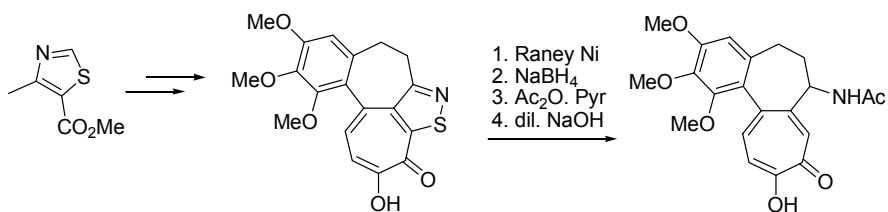
Ni(II) Octamethylcorphin



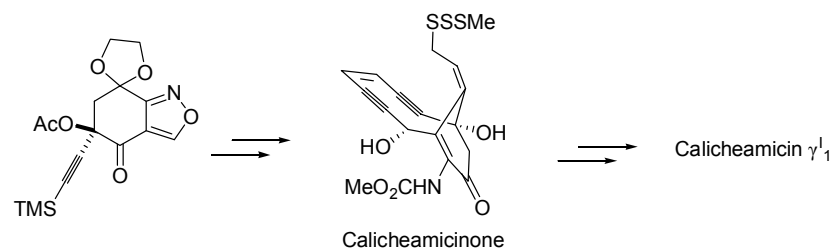
Studies towards Vitamin B12



Natural products Synthesis (last but not least)



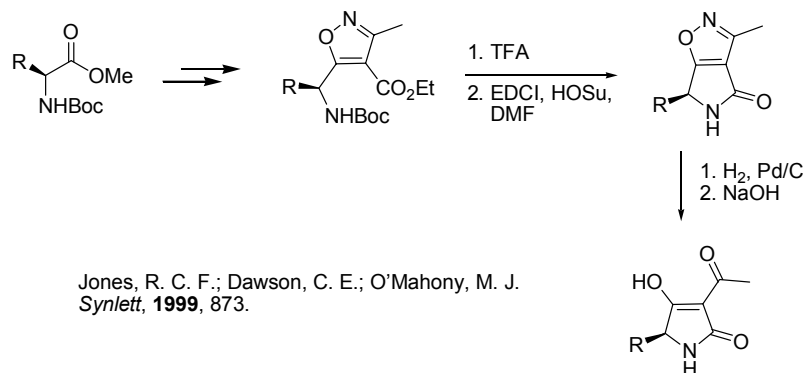
Woodward synthesis of colchicine (racemic)



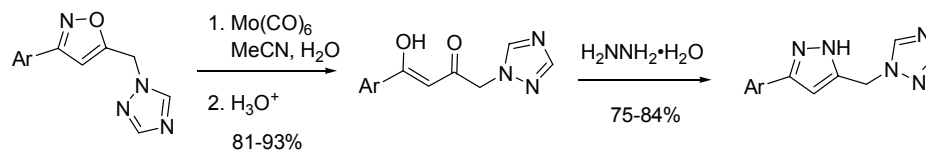
Nicolaou synthesis of calicheamicin

Synthesis of Heterocycles

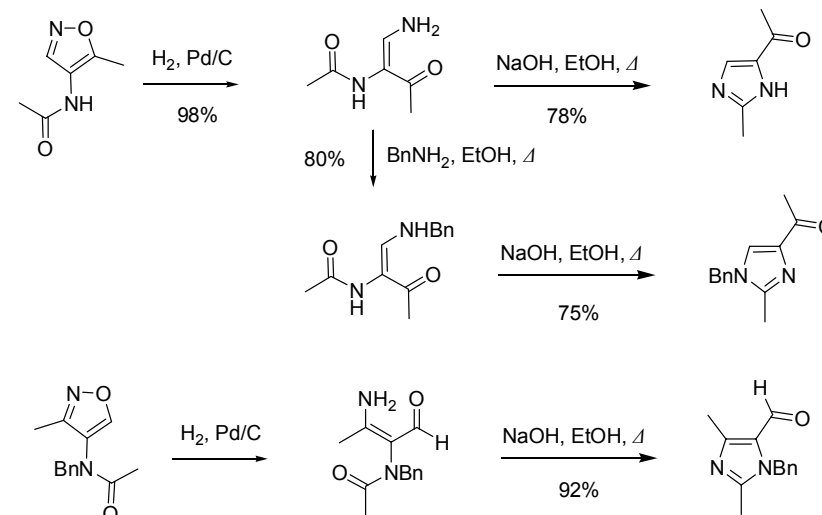
Pyrrolidinones

Jones, R. C. F.; Dawson, C. E.; O'Mahony, M. J. *Synlett*, **1999**, 873.

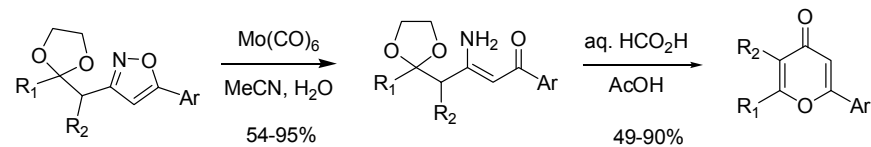
Pyrazoles

Skacani, I.; Fiserá, L.; Bartovicová, M.; Varkonda, S.; Hyblova, O.; *Collect. Czech. Chem. Comm.* **1991**, *56*, 1926.

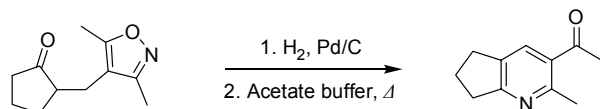
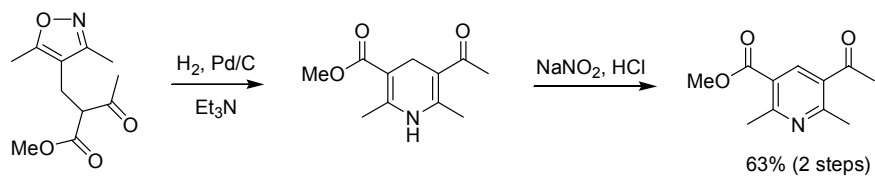
Imidazoles

Reiter, L.A. *J. Org. Chem.* **1987**, *52*, 2714.

Pyrones

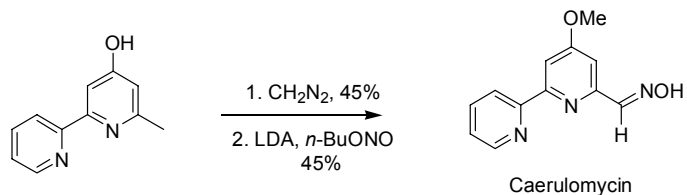
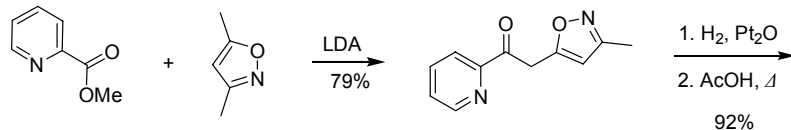
Li, C.-S.; Lacasse, E. *Tetrahedron Lett.* **2002**, *43*, 3565.

Pyridines

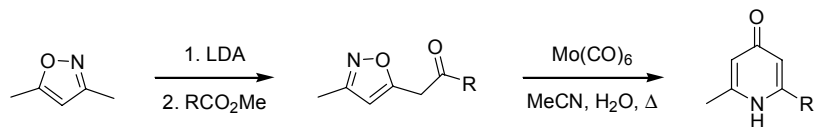


Ohashi, M.; Kamachi, S.; Kakisawa, H.; Stork, G. *J. Am. Chem. Soc.* **1967**, *89*, 5460.

Pyridones

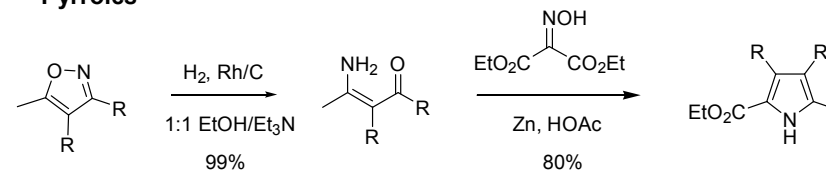


Alreja, B.D.; Kattige, L.S.; Lal, B.; deSouza, N.J. *Heterocycles* **1986**, *24*, 1637.



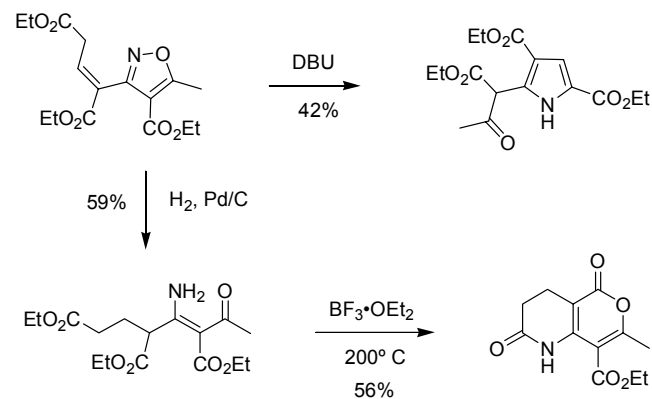
Nitta, M.; Higuchi, T. *Heterocycles*, **1994**, *38*, 853.

Pyrroles



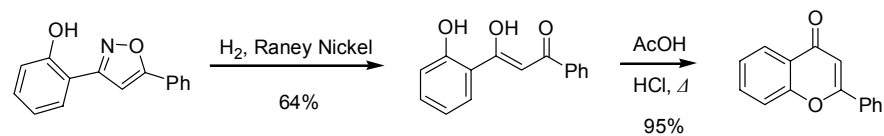
LeGoff, E.; Williams, P.D. *Heterocycles* **1984**, *22*, 269.

Pyrroles and bicyclic lactams

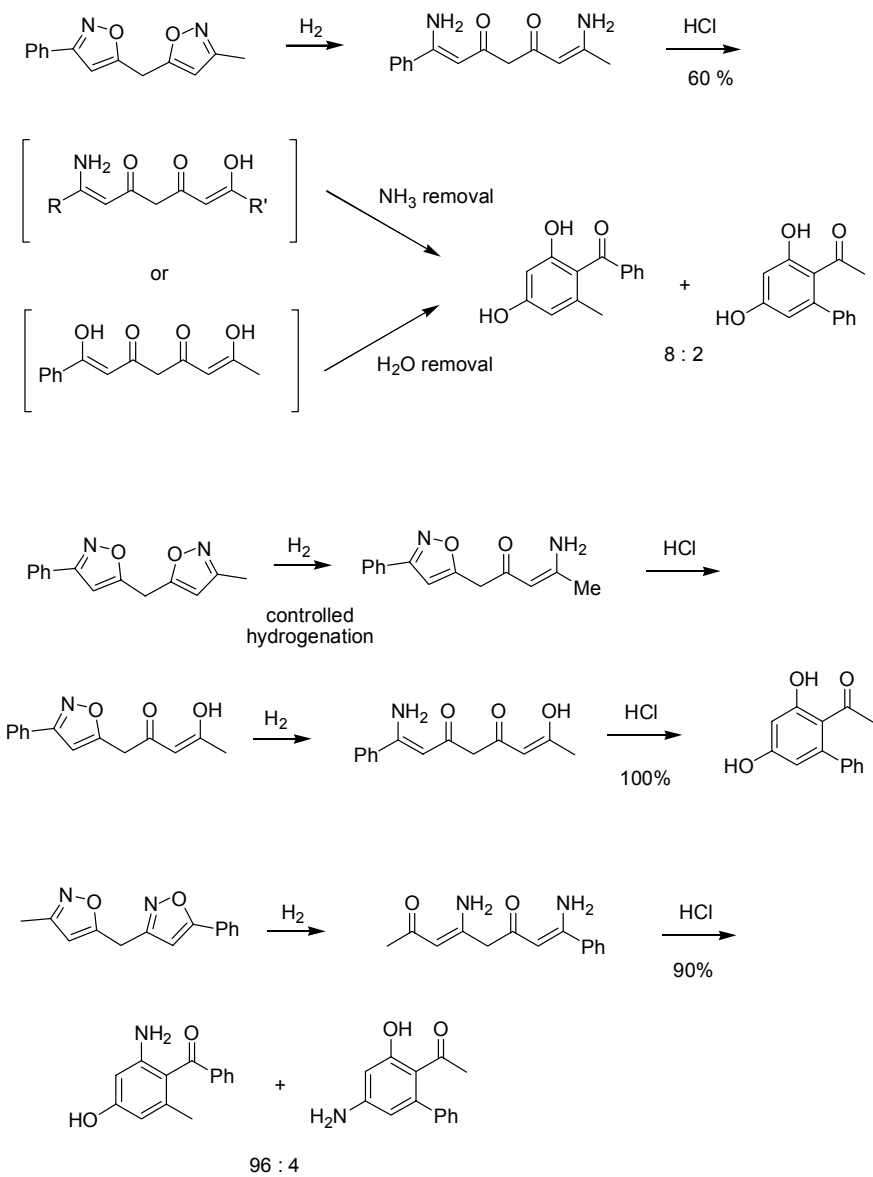
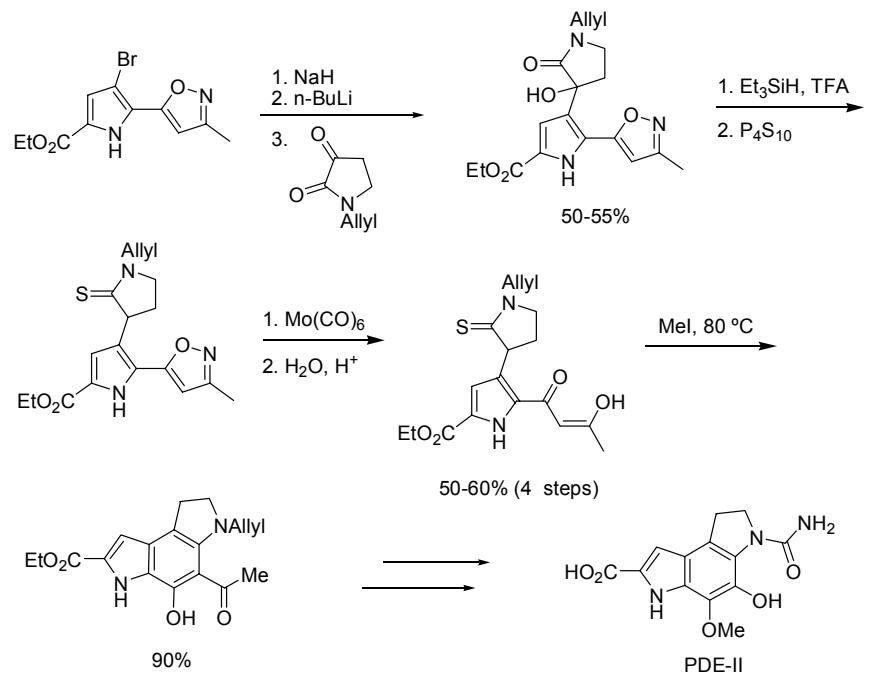
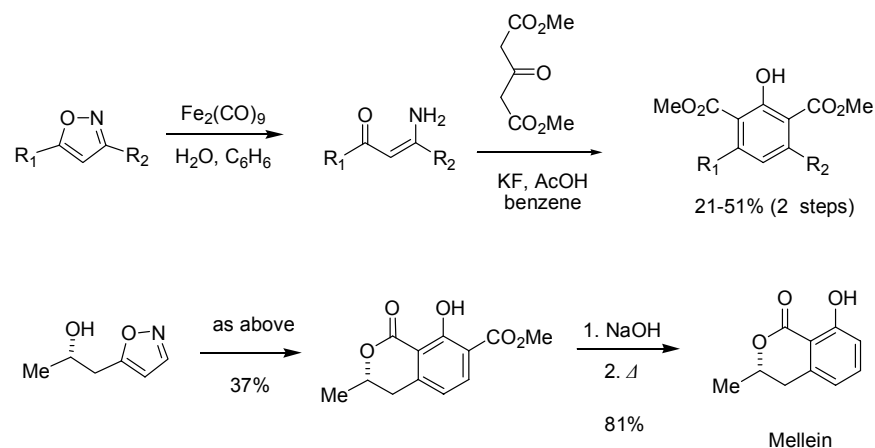


Doleschall, G.; Seres, P.; Parkanyi, L.; Toth, G.; Almasy, A.; Bihatsi-Karsai, E. *J. Chem. Soc., Perkin Trans. 1* **1986**, 927.

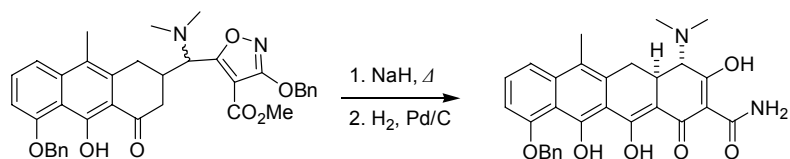
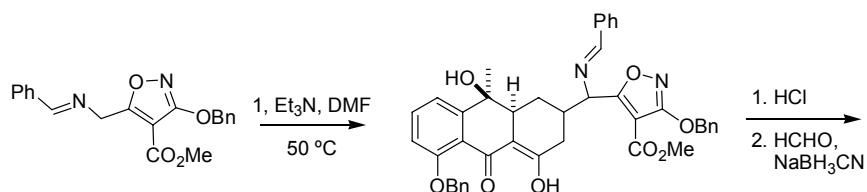
Flavones



Thomsen, I.; Torssell, K.B.G. *Acta Chem. Scand. B* **1988**, *42*, 303.

Arruchio, S.; Morrocchi, S.; Ricca, A. *TL* **1974**, 33, 2793.Sundberg, R.J.; Hamilton, G.S.; Laurino, J.P. *J. Org. Chem.* **1988**, 53, 976.Takeuchi, N.; Goto, K.; Sasaki, Y.; Fujita, T.; Okazake, K.; Kamata, K.; Tobinaga, S. *Heterocycles* **1992**, 33, 357.

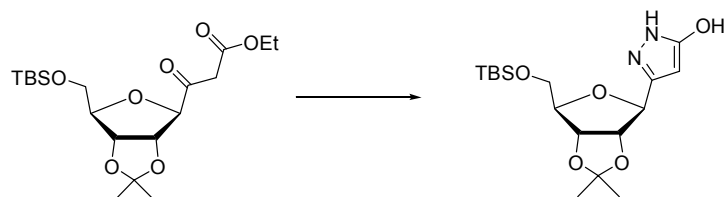
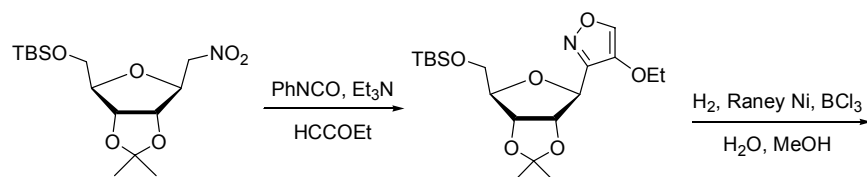
Studies towards tetracyclines



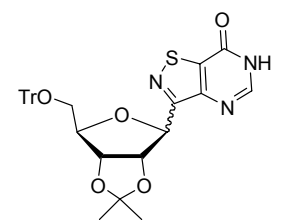
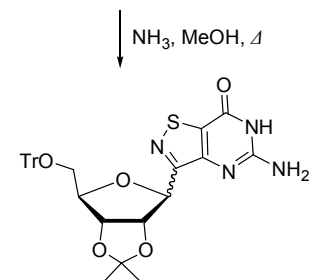
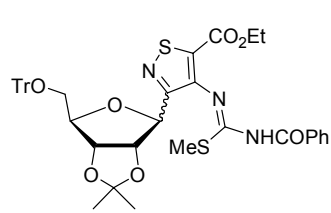
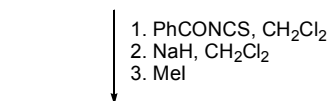
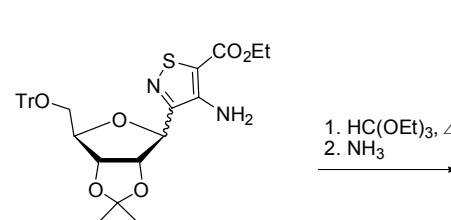
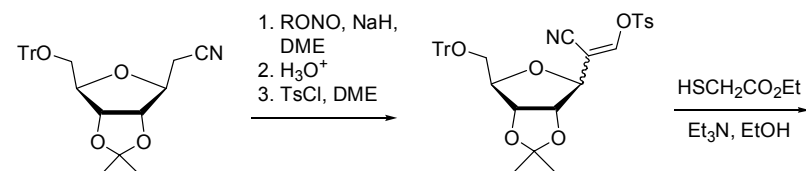
12-Deoxytetracycline

Stork, G.; Hagedorn, A.A. *JACS* 1978, 100, 3609.

Isoxazole C-Nucleosides

Kozikowski, A.P.; Goldstein, S. *JOC* 1983, 48, 1141.

Isothiazole C-Nucleosides

Wamhoff, H.; Berressem, R.; Nieger, M.
J. Org. Chem. 1993, 58, 5181; *ibid.* 1994, 59, 1912.