

Synthesis of chromeno-pyrroles (azacoumestans) from functionalized enones and alkyl isocyanoacetates

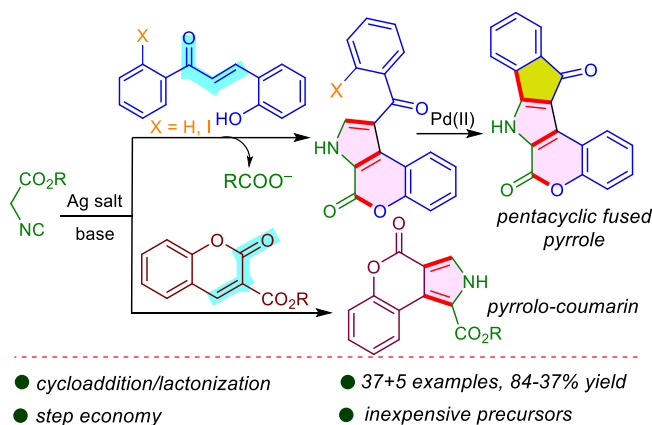
Bubul Das, Anjali Dahiya, Nikita Chakraborty, and Bhisma K. Patel^{*a}

^a*Department of Chemistry, Indian Institute of Technology Guwahati, 781039, Assam, India*

E-mail: patel@iitg.ac.in

Abstract:

Elegant synthetic strategies for chromeno-pyrroles (azacoumestans) have been devised via cycloaddition of hydroxychalcone/cyclic enones and alkyl isocyanoacetate, followed by lactonization. Herein, ethyl isocyanoacetate acts as a C–NH–C–C=O synthon contrary to its hitherto applications as a C–NH–C synthon. Subsequently, pentacyclic fused pyrroles were constructed from the *o*-iodo benzoyl chromeno-pyrroles using Pd(II) catalyst.



References:

1. J. Liu, Z. Fang, Q. Zhang, Q. Liu and X. Bi, *Angew. Chem. Int. Ed.*, 2013, **52**, 6953–6957.
2. X.-L. He, H.-R. Zhao, X. Song, B. Jiang, W. Du and Y.-C. Chen, *ACS Catal.*, 2019, **9**, 4374–4381.
3. B.-Z. Tang, W.-J. Hao, J.-Z. Li, S.-S. Zhu, S.-J. Tu and B. Jiang, *Chem. Commun.*, 2020, **56**, 7749–7752.