

Inter-IISER Chemistry Meet (ICM 2017)

An Unprecedented [4+2] Benzannulation of Oxindoles With Enalcarbenoids

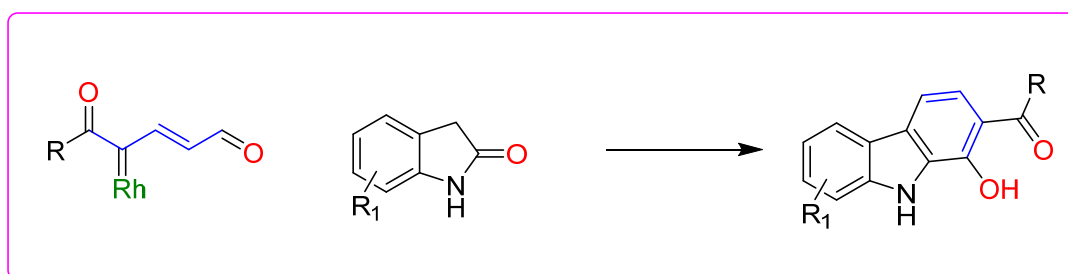
Haribabu Chennamsetti, Kuldeep Singh Rathore, Bapurao Sudam Lad and Sreenivas Katukojvala*

Department of chemistry, IISER Bhopal, Madhya Pradesh, INDIA

(E-mail: hari@iiserb.ac.in)

Abstract:

Recently, we have developed an unprecedented [4+2] benzannulation of oxindoles using a new class of enalcarbenoids.^{1,2} This novel Rh(II)/Brønsted acid catalyzed tandem benzannulation of oxindoles with enaldiazo carbonyls gave medicinally important 1-hydroxy-2-acylcarbazoles. This reaction is proposed to involve a formal insertion of a rhodium enalcarbenoid into an oxindole sp² C–O bond, an oxa-Michael addition, Friedel–Crafts reaction and a semipinacol type 1,2-carbonyl migration.²



References

1. Dawande, S. G.; Kanchupalli, V.; Kalepu, J.; **Chennamsetti, H.**; Lad, B. S.; Katukojvala, S. *Angew. Chem. Int. Ed.* **2014**, *53*, 4076.
2. Rathore, K. S.; Lad, B. S.; **Chennamsetti, H.**; Katukojvala, S. *Chem. Commun.* **2016**, *52*, 5812.