Indian Journal of Chemistry
Vol. 63, May 2024, pp. 495-499
DOI: 10.56042/ijc.v63i5.9286

A new and effective method to synthesize carbazolones by rhodium (I)-catalyzed annulation of 2-aminobenzaldehyde with cyclohexane-1,3-diones

Nesimi Uludag
Namık Kemal University, Department of Chemistry, 59030, Tekirdag, Turkey
E-mail: nuludag@nku.edu.tr

Received 4 March 2024; accepted (revised) 23 April 2024

In this research, substituted carbazolones have been synthesized by treating 2-aminobenzaldehyde and cyclohexane-1,3-diones using chlorobis(cyclooctene)rhodium(I)-catalyzed $[Rh(coe)_2Cl]_2$ in one-pot reactions and are found to have applications in organic synthesis and the pharmaceutical industry. The reaction proceeds smoothly under mild conditions, affording a range of carbazolone derivatives, and the product isolated in good to excellent yields (up to 93%).

Keywords: Carbazolones, $[Rh(coe)_2Cl]_2$-catalyzed, Annulation reaction, Biological activities, Pharmaceutical properties