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List of Publications

1. **K Rajput**, V Singh, A Kamal, H K Singh, S Singh and V Srivastava, "A novel approach towards synthesis of benzothiazoles and benzimidazoles: Eosin Y-catalyzed photo-triggered C–S and C–N bond formation," *New Journal of Chemistry*, **47** (2023) 22276–22280.
2. **K Rajput**, V Singh, P Mahaur, S Singh and V Srivastava, "Visible-light-induced C-S bond formation in the synthesis of 2,4-disubstituted thiazoles through cascade difunctionalization of acetophenone: A greener approach," *Organic & Biomolecular Chemistry*, **22** (2024) 2774–2779.
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4. V Singh, **K Rajput**, A Mishra, S Singh, V Srivastava, "Microwave-assisted chemoselective transamidation of secondary amides by selective N-C(O) bond cleavage under catalyst, additive and solvent-free conditions," *Chemical Communications*, **59** (2023) 14009–14012.
5. V Singh, **K Rajput**, P Verma, S Singh, V Srivastava, "A green approach for the synthesis of 2-oxo-1,2,3,4-tetrahydropyrimidines through oxidative functionalization of methyl arenes/benzyl derivatives via in situ generated urea," *Research on Chemical Intermediate*, **49** (2023) 2969–2987.
6. V Singh, **K Rajput**, P Mahaur, S Singh, V Srivastava, "Transamidation of secondary carboxamides and amidation of esters are facilitated by magnetic

Co@NC nanoparticles, as a highly efficient and recyclable catalyst under neat conditions," *New Journal of Chemistry*, 48 (2024), 13350-13357.

7. P Mahaur, **K Rajput**, V Singh, S Singh, V Srivastava, "Enhancing C-S and C-N bond formation with ultrasound assistance: lipase-catalyzed synthesis of 2,4 disubstituted thiazole derivatives from arylethanones and thioamides," *RSC Advances* **14** (2024) 21213-21218.
8. V Singh, **K Rajput**, S Singh, V Srivastava, "Montmorillonite K-10 catalyzed synthesis of Hantzsch dihydropyridine derivatives from methyl arenes via *in situ* generated ammonia under microwave irradiation in neat conditions," *RSC Advances* **14,** (2024), 27086-27091.

Conferences/Symposium

Paper presented

1. Eosin Y Mediated Photo Tiggered C-S and C-N Bond Formation: A Novel Route to Benzothiazole and Benzimidazole Synthesis, International Conference on Enabling transition Two words sustainable future (ICAFM-2024) February, 8-10, 2024, V.B.S.P University India.
2. Eosin Y-initiated Photo-Triggered C-S and C-N Bond Formation: A Novel Route to Benzothiazole and Benzimidazole Synthesis, International Conference on Fundamental and Advanced Research in Chemistry-2024 (FARC-2024) June, 6 to 8, 2024, Organized by the School of Chemical Sciences at the Indian Institute of Technology Mandi (H. P), India.