

Curriculum Vitae:		Dr. PANKAJ CHAUHAN
Current Position & Address: Assistant Professor, Department of Chemistry, Indian Institute of Technology Jammu NH-44, Near Nagrota Bypass Jagti Jammu (J&K) India		Email Address: pankaj.chauhan@iitjammu.ac.in Contact No: +91 9876005398
Experience: Assistant Professor , Department of Chemistry, Indian Institute of Technology, Jammu (October 2017-continuing) Sub Group Leader with Prof. Dieter Enders at RWTH Aachen University, Germany (April 2014-September 2017). Postdoctoral Researcher with Prof. Dieter Enders at RWTH Aachen University, Germany (April 2013-March 2014). Research Associate with Prof. Swapandeep Singh Chimni at Guru Nanak Dev University, Amritsar, India (November 2012-March 2013).		
Education: Ph.D. from Guru Nanak Dev University, India (Ph. D. Supervisor - Prof. Swapandeep Singh Chimni, Ph.D. date: 29 th November, 2012). Thesis Title - Enantioselective Carbon-Carbon Bond Formation Catalyzed by Cinchona-Derived Organocatalysts		
Research Interests: Asymmetric Synthesis, Organocatalysis, NHC-Catalysis, Photoredox Catalysis, Synergistic Catalysis, Domino/Cascade Reactions, Total Synthesis, Mechanochemistry and Green Chemistry.		
Publications:		
From IIT Jammu:		
1. Tamanna, M. Kumar, K. Joshi, P. Chauhan* , Catalytic Asymmetric Synthesis of Isochroman Derivatives, <i>Adv. Synth. Catal.</i> 2020 , 362, 1907-1926.		
2. P. Chauhan* , N-Heterocyclic carbene catalysed umpolung reactions of imines approaching enantioselective synthesis, <i>Org. Chem. Front.</i> , 2019 , 6, 3821-3824.		
From RWTH Aachen University:		
3. E. Jafari, P. Chauhan , M. Kumar, X.-Y. Chen, S. Li, C. von Essen, K. Rissanen and D. Enders, Organocatalytic Asymmetric Synthesis of Trifluoromethylated Tetrahydrocarbazoles via a Vinylogous Michael/Aldol Formal [4+2] Annulation, <i>Eur. J. Org. Chem.</i> 2018 , 2462-2465.		
4. M. Kumar, P. Chauhan , S. Bailey, E. Jafari, C. von Essen, K. Rissanen and D. Enders, Organocatalytic Oxa-Michael/Michael/Michael/Aldol Condensation Quadruple Domino Sequence: Asymmetric Synthesis of Tricyclic Chromanes, <i>Org. Lett.</i> 2018 , 20, 1232-1235.		
5. X.-Y. Chen, Q. Liu, P. Chauhan and D. Enders, N-Heterocyclic Carbene Catalysis via Azolium Dienolates: An Efficient Strategy for Enantioselective Remote Functionalizations, <i>Angew. Chem. Int. Ed.</i> 2018 , 57, 3862-3873.		
6. F. Vetica, P. Chauhan , S. Mahajan, G. Raabe, D. Enders, Asymmetric Organocatalytic Friedel-Crafts Hydroxyalkylation of Indoles Using Electrophilic Pyrazole-4, 5-diones, <i>Synthesis</i> , 2018 , 50, 1039-1046.		
7. E. Jafari, D. S. Kundu, P. Chauhan , V. P. R. Gajulapalli, C. v. Essen, K. Rissanen, D. Enders, Organocatalytic Enantioselective Vinylogous Henry Reaction of 3,5-Dimethyl-4-nitroisoxazole with Trifluoromethyl Ketones, <i>Synthesis</i> , 2018 , 50, 323-329.		
8. U. Kaya, P. Chauhan* , S. Mahajan, K. Deckers, A. Valkonen, K. Rissanen and D. Enders, Asymmetric Squaramide Catalyzed Domino aza-Friedel-Crafts/N,O-Acetalization Reactions Between Naphthols and Pyrazolinone Ketimines, <i>Angew. Chem. Int. Ed.</i> 2017 , 56, 15358-15362 (Highlighted in Synfacts).		
9. P. Chauhan , S. Mahajan, D. Enders, Achieving Molecular Complexity via Stereoselective Multiple Domino Reactions Promoted by a Secondary Amine Organocatalyst, <i>Acc. Chem. Res.</i> 2017 , 50, 2809-2821.		
10. P. Chauhan , S. Mahajan, U. Kaya, A. Peuronen, K. Rissanen and D. Enders, Asymmetric Synthesis of Amino-Bis-Pyrazolone Derivatives via an Organocatalytic Mannich Reaction, <i>J. Org. Chem.</i> 2017 , 82, 7050-7058.		

11. **P. Chauhan**, U. Kaya and D. Enders, Advances in Organocatalytic 1,6-Addition Reactions: Enantioselective Construction of Remote Stereogenic Centers, *Adv. Synth. Catal.* **2017**, *359*, 888-912 (**Selected as very important paper and among the most accessed articles in 02/2017**).
12. F. Vetica, S. Bailey, **P. Chauhan**, M. Turberg, A. Ghaur, G. Raabe AND D. Enders, Desymmetrization of Cyclopentenediones *via* Organocatalytic Cross-Dehydrogenative Coupling, *Adv. Synth. Catal.* **2017**, *359*, 3729-3734.
13. F. Vetica, **P. Chauhan**, S. Dochain and D. Enders, Asymmetric Organocatalytic Methods for the Synthesis of Tetrahydropyrans and Their Application in Total Synthesis, *Chem. Soc. Rev.* **2017**, *46*, 1661-1674.
14. S. Mahajan, **P. Chauhan**, U. Kaya, K. Deckers, K. Rissanen and D. Enders, Enantioselective synthesis of pyrazolone α -aminonitrile derivatives *via* an organocatalytic Strecker reaction, *Chem. Commun.* **2017**, 6633-6636.
15. M. Kumar, **P. Chauhan**, A. Valkonen, K. Rissanen and D. Enders, Asymmetric Synthesis of Functionalized Tricyclic Chromanes *via* an Organocatalyzed Triple Domino Reaction, *Org. Lett.* **2017**, *19*, 3025-3028.
16. X.-Y. Chen, Q. Liu, **P. Chauhan**, S. Li, A. Peuronen, K. Rissanen, E. Jafari and D. Enders, N-Heterocyclic Carbene Catalyzed [4+2] Annulation of Enals *via* a Double Vinylogous Michael Addition: Asymmetric Synthesis of 3,5-Diaryl Cyclohexenones, *Angew. Chem. Int. Ed.* **2017**, *56*, 6241-6245 (**Highlighted in Synfacts**).
17. S. Li, L. Wang, **P. Chauhan**, A. Peuronen, K. Rissanen and D. Enders, Asymmetric Synthesis of five-membered Spiropyrazolones *via* N-Heterocyclic Carbene-Catalyzed [3+2] Annulations, *Synthesis* **2017**, *49*, 1808-1815.
18. **P. Chauhan**, S. Mahajan, U. Kaya, R. Puttreddy, K. Rissanen and D. Enders, Asymmetric Synthesis of Spiro β -Lactams *via* a Squaramide Catalyzed sulfa-Michael Addition/Dynamic Kinetic Resolution Protocol, *Adv. Synth. Catal.* **2016**, *358*, 3173-3178.
19. S. Mahajan, **P. Chauhan**, A. Kumar and S. S. Chimni, Organocatalytic Enantioselective Synthesis of N-Alkyl/Aryl-3-alkyl-pyrrolidine-2,5-dione in Brine, *Tetrahedron: Asymmetry*, **2016**, *27*, 1145-1152.
20. U. Kaya, **P. Chauhan**, K. Deckers, R. Puttreddy, K. Rissanen, G. Raabe and D. Enders, Asymmetric Synthesis of Tetrahydrobenzofurans and Annulated Dihydropyrans *via* Cooperative One-Pot Organo- and Silver Catalysis, *Synthesis* **2016**, *48*, 3207-3216.
21. L. Wang, S. Li, **P. Chauhan**, D. Hack, A. R. Philipps, R. Puttreddy, K. Rissanen, G. Raabe and D. Enders, Asymmetric Three Component One-Pot Synthesis of Spiropyrazolones and 2,5-Chromene-diones *via* Aldol Condensation/NHC-Catalyzed Annulation Reactions, *Chem. Eur. J.* **2016**, *22*, 5123-5127.
22. S. Mahajan, **P. Chauhan**, M. Blümel, R. Puttreddy, K. Rissanen, G. Raabe and D. Enders, Asymmetric Synthesis of Spiro Tetrahydrothiophene-Indan-1,3-Diones *via* a Squaramide-Catalyzed sulfa-Michael/Aldol Domino Reaction, *Synthesis* **2016**, *48*, 1131-1138.
23. D. Hack, A. B. Dürr, K. Deckers, **P. Chauhan**, N. Seling, L. Rübenach, L. Mertens, G. Raabe, F. Schoenebeck and D. Enders, Asymmetric Synthesis of Spiropyrazolones by Sequential Organo- and Silver Catalysis, *Angew. Chem. Int. Ed.* **2016**, *55*, 1797-1800 (**Highlighted in Synfacts**).
24. U. Kaya, **P. Chauhan**, D. Hack, K. Deckers, R. Puttreddy, K. Rissanen and D. Enders, Enantioselective synthesis of 4H-pyranonaphthoquinones *via* sequential squaramide and silver catalysis, *Chem. Commun.* **2016**, *52*, 1669-1672.
25. **P. Chauhan**, S. Mahajan and D. Enders, Asymmetric Synthesis of Pyrazoles and Pyrazolones Employing the Reactivity of Pyrazolin-5-one Derivatives, *Chem. Commun.* **2015**, *51*, 12890-12907 (**Among top twenty-five most accessed articles from July to September 2015**)
26. **P. Chauhan**, S. Mahajan, U. Kaya, D. Hack and D. Enders, Bifunctional Squaramides: Powerful Hydrogen-Bonding Organocatalysts for Asymmetric Domino/Cascade Reactions, *Adv. Synth. Catal.* **2015**, *357*, 253-281 (**Among the most accessed articles from April 2015 to March 2016**).
27. **P. Chauhan**, S. Mahajan, G. Raabe and D. Enders, Organocatalytic One-pot 1,4-/1,6-/1,2-Addition Sequence for the Stereocontrolled Formation of Six Consecutive Stereocenters, *Chem. Commun.* **2015**, *51*, 2270-2272.
28. **P. Chauhan** and D. Enders, Organocatalytic Quadruple Domino Reactions: an Efficient Strategy for the Asymmetric Synthesis of Complex Molecules, *The Takasago Times*, **2015**, *176*, 45-50.
29. M. Blümel, **P. Chauhan**, C. Vermeeren, A. Dreier, C. Lehmann and D. Enders, Asymmetric Organocatalytic

- Synthesis of Highly Functionalized Spirocyclohexane Indandiones *via* a One-Pot Michael/Michael/Aldol Sequence, *Synthesis* **2015**, *47*, 3618-3628.
30. D. Hack, M. Blümel, **P. Chauhan**, A. Phillips and D. Enders, Catalytic Conia-Ene and Related Reactions, *Chem. Soc. Rev.* **2015**, *44*, 6059-6093.
 31. D. Hack, **P. Chauhan**, K. Deckers, G. Raabe and D. Enders, Combining Silver- and Organocatalysis: an Enantioselective Sequential Catalytic Approach Towards Pyrano-annulated Pyrazoles *Chem. Commun.* **2015**, *51*, 2266-2269.
 32. C. Beceno, **P. Chauhan**, A. Rembiak, A. Wang and D. Enders, Brønsted Acid Catalyzed Enantioselective Synthesis of Isatin Derived N,S-Acetals, *Adv. Synth. Catal.* **2015**, *357*, 672-676. (**Among the most accessed articles in February 2015**).
 33. S. Mahajan, **P. Chauhan**, C. C. J. Loh, S. Uzungelis, G. Raabe and D. Enders, Organocatalytic Asymmetric Domino Michael/Henry Reaction of Indolin-3-ones with *o*-Formyl- β -nitrostyrenes, *Synthesis* **2015**, *47*, 1024-1031. (**Among the 10 most popular articles in January 2015**).
 34. **P. Chauhan** and D. Enders, *N*-Heterocyclic Carbene Catalyzed Activation of Esters: A New Option for Asymmetric Domino Reactions, *Angew. Chem. Int. Ed.* **2014**, *53*, 1485-1487.
 35. **P. Chauhan**, S. Mahajan and D. Enders, Organocatalytic Carbon-Sulfur Bond Forming Reactions, *Chem. Rev.* **2014**, *114*, 8807-8864.
 36. **P. Chauhan**, S. Mahajan, C. C. J. Loh, G. Raabe and D. Enders, Stereocontrolled Construction of Six Vicinal Stereogenic Centers on Spiropyrazolones *via* Organocascade Michael/Michael/1,2-Addition Reactions, *Org. Lett.* **2014**, *16*, 2954-2957.
 37. **P. Chauhan**, G. Urbanietz, G. Raabe and D. Enders, Asymmetric Synthesis of Functionalized Cyclohexanes Bearing Five Stereocenters *via* a One-pot Organocatalytic Michael/Michael/1,2-Addition Sequence, *Chem. Commun.* **2014**, *50*, 6853-6855.
 38. M. Blümel, **P. Chauhan**, R. Hahn, G. Raabe and D. Enders, Asymmetric Synthesis of Tetrahydropyridines *via* an Organocatalytic One-pot Multi-component Michael/aza-Henry/Cyclization Triple Domino Reaction, *Org. Lett.* **2014**, *16*, 6012-6015.
 39. D. Hack, **P. Chauhan**, K. Deckers, H. Gary, M. Lucas, G. Raabe and D. Enders, Combining Silver Catalysis and Organocatalysis: A Sequential Michael Addition/Hydroalkoxylation One-Pot Approach to Annulated Coumarins, *Org. Lett.* **2014**, *16*, 5188-5191.
 40. C. C. J. Loh, **P. Chauhan**, D. Hack, C. Lehmann and D. Enders, Rapid Asymmetric Synthesis of Highly Functionalized Indanols *via* a Michael/Henry Organocascade with Submol% Squaramide Catalyst Loadings, *Adv. Synth. Catal.* **2014**, *356*, 3181-3186.
- From Guru Nanak Dev University:**
41. J. Kaur, **P. Chauhan** and S. S. Chimni, Journey Heading Towards Enantioselective Synthesis Assisted by Organocatalysts, *Chem. Rec.* **2018**, *18*, 137-153.
 42. J. Kaur, **P. Chauhan** and S. S. Chimni, α,α -Dicyanoolefins: versatile substrates in organocatalytic asymmetric transformations, *Org. Biomol. Chem.* **2016**, *14*, 7832-7847.
 43. A. Kumar, J. Kaur, **P. Chauhan** and S. S. Chimni, Organocatalytic Asymmetric Friedel–Crafts Reaction of Sesamol with Isatins: Access to Biologically Relevant 3-Aryl-3-hydroxy-2-oxindoles, *Chem. Asian J.* **2014**, *9*, 1305-1310.
 44. **P. Chauhan** and S. S. Chimni, Organocatalytic Enantioselective aza-Friedel-Crafts Reaction of Sesamols with *N*-Sulfonylimines Catalyzed by 6'-OH *Cinchona* Alkaloids, *Tetrahedron Lett.* **2013**, *54*, 4613-4616.
 45. **P. Chauhan** and S. S. Chimni, Organocatalytic Enantioselective Morita–Baylis–Hillman Reaction of Maleimides with Isatins, *Asian J. Org. Chem.* **2013**, *2*, 586-592. (**Highlighted in Chemistry Views and also featured on the inside cover of the Journal**).
 46. **P. Chauhan**, J. Kaur and S. S. Chimni, Asymmetric Organocatalytic Addition Reactions of Maleimides: A Promising Approach towards the Synthesis of Chiral Succinimide Derivatives, *Chem. Asian. J.* **2013**, *8*, 328-346 (**Among the most cited articles those published in 2013-2014**).

47. **P. Chauhan** and S. S. Chimni, Organocatalytic Asymmetric Synthesis of 3-Amino-2-oxindole Derivatives Bearing a Tetra-Substituted Stereocenter, *Tetrahedron: Asymmetry* **2013**, *24*, 343-356. (**The most cited article since 2011 and the most accessed article in 2013**).
48. **P. Chauhan**, S. Singh and S. S. Chimni, D-Camphor-10-Sulfonic Acid – A Water Compatible Organocatalyst for Michael-type Friedel-Crafts Reaction of Indoles with Electron Deficient Olefins, *Ind. J. Chem. Sect. B* **2013**, *52B*, 245-251.
49. **P. Chauhan** and S. S. Chimni, Mechanochemistry Assisted Asymmetric Organocatalysis: A Sustainable Approach, *Beilstein J. Org. Chem.* **2012**, *8*, 2132-2141. (**Featured in the Thematic Series "Organocatalysis" and also among the 10 most accessed articles from December 2012 to January 2013**).
50. **P. Chauhan** and S. S. Chimni, Grinding Assisted Asymmetric Organocatalysis: A Solvent-Free Approach Towards the Construction of Vicinal Quaternary and Tertiary Stereocentres, *Asian J. Org. Chem.* **2012**, *1*, 138-141. (**Highlighted in Chemistry View and among the most frequently cited articles those published in 2012**).
51. **P. Chauhan** and S. S. Chimni, Recent Advances in Asymmetric Organocatalytic Conjugate Addition of Heteroarenes and Arenes, *RSC Adv.* **2012**, *2*, 6117-6134.
52. **P. Chauhan** and S.S. Chimni, Aromatic Hydroxyl Group - A Hydrogen Bonding Activator in Bifunctional Asymmetric Organocatalysis *RSC Adv.* **2012**, *2*, 737-758. (**Among the 15 most downloaded articles from December 2011 to February 2012**).
53. **P. Chauhan** and S.S. Chimni, Facile Construction of Vicinal Quaternary and Tertiary Stereocenters via Regio- and Stereoselective Organocatalytic Michael Addition to Nitrodienes, *Adv. Synth. Catal.* **2011**, *353*, 3203-3212.
54. **P. Chauhan** and S. S. Chimni, Asymmetric Organocatalytic Aza-Friedel Crafts Reaction of Naphthols with *N*-Sulfonyl Imines, *Eur. J. Org. Chem.* **2011**, 1636-1640.
55. **P. Chauhan**, K. Kaur, N. Bala, V. Kumar, and S. S. Chimni, Catalyst-free and Solventless Hantzsch Ester (HEH) Mediated Reduction of Nitro-olefins at Elevated Temperature, *Ind. J. Chem. Sect. B* **2011**, *50B*, 304-309.
56. **P. Chauhan** and S. S. Chimni, Asymmetric Addition of Indoles to Isatins Catalysed by Bifunctional Modified Cinchona Alkaloids Catalysts, *Chem. Eur. J.* **2010**, *16*, 7709-7713.
57. **P. Chauhan**, *N*-Chlorosuccinimide (NCS). (**Spotlight**). *Synlett* **2010**, 1285-1286. (**Among the 10 most popular articles in May 2010**).

Book Chapter:

From IIT Jammu:

- **P. Chauhan**, S. Mahajan, X.-Y. Chen, D. Enders, Domino Processes in NHC Catalysis, in book: N-Heterocyclic Carbenes in Organocatalysis, 2019, pp.133-156, Wiley-VCH Verlag GmbH & Co. KGaA.

Scholarships and Awards:

1. **Thieme Journal Award** in 2018.
2. **DST INSPIRE Faculty Award** in 2016.
3. **Postdoctoral Fellowship** from the European Research Council (ERC) grant of Prof. Dieter Enders (April 2013).
4. Selected for "**Research in Paris**" France in 2013 (Declined).
5. Selected for "**Science without Border**" Brazil in 2013 (Declined).

Awarded **International Travel Grant** by DST India for attending 9th International Congress of Young Chemists "YoungChem 2011" October, 12-16, 2011 at Krakow, Poland.