

Curriculum Vitae

Dr Pushpinder Singh

Assistant Professor

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QUALIFICATION

Degree	Year	Institution	Division
Ph.D (Organic Chemistry)	2013	Panjab University, Chandigarh	--
NET/JRF	2007, 2008, 2010	UGC-CSIR	--
M.Sc-Chemistry	2007	Punjabi University, Patiala	1 st
B.Sc	2005	S.C.D. Govt. College, Ludhiana (Panjab University, Chandigarh)	1 st

TEACHING EXPERIENCE

Total teaching experience = 11 years

ORIENTATION COURSE/REFRESHER COURSE/FDP

- 1) 8th Faculty Induction Program sponsored by UGC-HRDC centre of North-Eastern Hill University, Shillong from 2nd March 2022 to 31st March 2022.
- 2) One day workshop "Hands on HPLC workshop" on 11th April, 2022 organized by Department of Chemistry, DAV College, Sector 10, Chandigarh.
- 3) Attended UGC-approved short-term professional development programme on 'Implementation of NEP-2020 for University and College Teachers; from 23 February – 03 March, 2023.
- 4) Completed MOOC course on "Introduction to Professional Scientific Communication" offered on SWAYAM portal Jan-Feb 2023.
- 5) Attended One Week National Workshop on Nanomaterials for Sustainable Future organised by Centre of Excellence in Nanotechnology, Maharaja Agrasen

University; Khwaja Moinuddin Chishti Language University, Lucknow (U.P.) In Collaboration with SAIF-CIL, Panjab University, Chandigarh from October 30 to November 04, 2023.

- 6) Attended online Refresher Course on "Innovation in Teaching and Research in Accordance to NEP-2020" at University of Rajasthan, Jaipur from 16.01.2025 to 29.01.2025.

AWARDS AND ACHIEVEMENTS/GUEST LECTURES DELIVERED

- Delivered a lecture "Chemistry in three dimensions: Stereochemical reactions" under DBT scheme at Guru Nanak College, Sri Muktsar Sahib, Punjab on 22 March, 2024.
- Delivered a lecture "Organic reactions: Mechanistic studies and applications" under DBT scheme at Guru Nanak College, Sri Muktsar Sahib, Punjab on 10 Oct, 2024.
- Awarded INSA-IAS-NASI fellowship for short term project at JNU, New Delhi in May 2019.

RESEARCH GUIDANCE

Ph.D. students enrolled = 01

M.Sc. project students guided = 13

LIST OF RESEARCH PUBLICATIONS

- 1) "DBU-Catalyzed Vinylogous Reaction of 3-Cyano-4-methylcoumarins with 3-Arylsulfonyl-3-indolyloxindoles" Mritunjay, Shubham Sharma, Pushpinder Singh, Ankush Gupta, Virender Singh, Lakhmir Singh, Akshay Kumar *ChemistrySelect* 2024, 9, e202402133. (DOI: [10.1002/slct.202402133](https://doi.org/10.1002/slct.202402133))
- 2) "Evaluation of Phenyldiazenyl as a Protective/Activating Group in Lithiation–Substitution Reactions of Tetrahydroisoquinolines" Babaldeep Kaur, Manjot Kaur, Pushpinder Singh, Esha Sharma, Aanchal Batra, Amarjit Kaur, Kamal Nain Singh *Synlett* 2024; 35(13): 1577-1583.(DOI: [10.1055/s-0042-1751537](https://doi.org/10.1055/s-0042-1751537))

- 3) "Synthesis and evaluation of variably substituted *N*-methyl tetrahydroisoquinolines and benzazepines as monoamine reuptake inhibitors" Sneha Lata , Ashish Dhir , S.V. Kessar , K.N. Singh , S.K. Kulkarni , Pushpinder Singh *Results in Chemistry* 2022, 4, 100352. (DOI: [10.1016/j.rechem.2022.100352](https://doi.org/10.1016/j.rechem.2022.100352))
- 4) "Intramolecular Nucleophilic Addition of *N*-Boc Protected α -Amino Carbanions to Arynes: Synthesis of 1-Aryl-2,3,4,5-tetrahydro-1H-2-benzazepines" Manjot Kaur, Esha Sharma, Pushpinder Singh, Babaldeep Kaur, Amarjit Kaur, Kamal Nain Singh *Chemistry Select* 2022, 7, 881. (DOI: [10.1002/slct.202200881](https://doi.org/10.1002/slct.202200881))
- 5) "Progress of Dialkyl Azodicarboxylates in Organic Transformations" Pushpinder Singh, and Mritunjay *Asian J. Org. Chem.* 2021, 10, 964-979. (DOI: [10.1002/ajoc.202100104](https://doi.org/10.1002/ajoc.202100104))
- 6) "Transition-Metal-Free Strategies for the Synthesis of C-1 Aryl-Substituted Tetrahydroisoquinolines" Pushpinder Singh, Aanchal Batra, Kamal Nain Singh and Mritunjay *Synthesis* 2021, 53, 1556-1569. (DOI: [10.1055/a-1344-2074](https://doi.org/10.1055/a-1344-2074))
- 7) "Latest Advancements in Transition-Metal-Free Carbon-Heteroatom Bond Formation Reactions via Cross-Dehydrogenative Coupling" Aanchal Batra, Pushpinder Singh, and K. N. Singh *Asian J. Org. Chem.* 2021, 10, 1024-1049. (DOI: [10.1002/ajoc.202100070](https://doi.org/10.1002/ajoc.202100070))
- 8) "Synthetic approaches towards the synthesis of C-1 azole substituted Tetrahydroisoquinolines" Pushpinder Singh *Curr. Org. Chem.* 2021, 25, 519-528. (DOI: [10.2174/1385272824999201228140959](https://doi.org/10.2174/1385272824999201228140959))
- 9) "Transition-Metal-Free Arylation of *N*-Alkyl-tetrahydroisoquinolines under Oxidative Conditions: A Convenient Synthesis of C1-Arylated Tetrahydroisoquinoline Alkaloids" Kamal Nain Singh, Satinder V. Kessar, Paramjit Singh, Pushpinder Singh, Manjot Kaur, Aanchal Batra *Synthesis* 2014, 46, 2644. (DOI: [10.1055/s-0034-1378337](https://doi.org/10.1055/s-0034-1378337))
- 10) "Oxidative C-Se coupling of formamides and diselenides by using aqueous *tert*-butyl hydroperoxide: A convenient synthesis of selenocarbamates" Pushpinder Singh, Aanchal Batra, Paramjit Singh, Amarjit Kaur and Kamal Nain Singh* *Eur. J. Org. Chem.* 2013, 7688. (DOI: [10.1002/ejoc.201301248](https://doi.org/10.1002/ejoc.201301248))
- 11) "(2*S*)-2-(Phenylsulfinylmethyl) pyrrolidine catalyzed efficient stereoselective Michael addition of cyclohexanone and cyclopentanone to nitroolefins", Kamal Nain Singh, Paramjit Singh, Amarjit Kaur, Pushpinder Singh, Sandeep Kumar Sharma, Sadhika Khullar, Sanjay K. Mandal *Synthesis*, 2013, 45, 1406. (DOI: [10.1055/s-0032-1316917](https://doi.org/10.1055/s-0032-1316917))
- 12) "Cross dehydrogenative coupling of dithiolanes with ketones and indoles under metal free conditions", Kamal Nain Singh, Paramjit Singh, Pushpinder Singh, Yogita Maheshwary, Satinder V. Kessar and Aanchal Batra *Synlett*, 2013, 24, 1963. (DOI: [10.1055/s-0033-1339335](https://doi.org/10.1055/s-0033-1339335))

- 13) "Nucleophilic Addition of β -Amino Carbanions to Arynes: One-Pot Synthesis of 4-Aryl-*N*-methyl-1,2,3,4-tetrahydroisoquinolines", Kamal Nain Singh, Paramjit Singh, Pushpinder Singh, Yadwinder Singh Deol *Org. Lett.* 2012, 14, 2202. (DOI: [10.1021/ol300360r](https://doi.org/10.1021/ol300360r))
- 14) "C-1 Alkynylation of *N*-methyltetrahydroisoquinolines through CDC: A direct access to phenethylisoquinoline alkaloids", Kamal Nain Singh, Paramjit Singh, Amarjit Kaur, Pushpinder Singh *Synlett*, 2012, 760. (DOI: [10.1055/s-0031-1290532](https://doi.org/10.1055/s-0031-1290532))
- 15) "Pyrrolidine based chiral organocatalyst for efficient asymmetric Michael addition of cyclic ketones to β -nitrostyrenes", Kamal Nain Singh, Paramjit Singh, Pushpinder Singh, Nand Lal, Sandeep Kumar Sharma *Bioorg. Med. Chem. Lett.* 2012, 22, 4225. (DOI: [10.1016/j.bmcl.2012.05.047](https://doi.org/10.1016/j.bmcl.2012.05.047))
- 16) "A Short Synthesis of Benzomorphone Analgesics (\pm)-Metazocine and (\pm)-Phenazocine", Kamal Nain Singh, Pushpinder Singh, Arvind Kumar Sharma, Paramjit Singh, Satinder V. Kessar *Synth. Commun.* 2010, 40, 3716. (DOI: [10.1080/00397910903531722](https://doi.org/10.1080/00397910903531722))