CURRICULAM VITAE

UPENDRA SHARMA, PhD

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PROFESSIONAL EXPERIENCE

Senior Scientist (1st September 2017 onwards) at NPC&PDD, CSIR-IHBT, Palampur

Scientist (1st September 2014- 31st August 2017) at NPC&PDD, CSIR-IHBT, Palampur

Postdoctral Fellow (14th **March 2014- 22**nd **August)** at KAIST, South Korea, working on transition metal catalyzed remote C-H activation.

Young Scientist-DST Fast Track (24th May 2013-11th March 2014) at IIT Bombay, worked on development of catalytic processes for heterocycle synthesis through multiple C-H activation.

Research Assistant (6th Nov. 2012-22nd May 2013) at IIT Bombay, worked on stereoselective nitration and trifluoromethylation of olefins.

EDUCATION

2007 – 2012	PhD (Organic Chemistry) GNDU. Amritsar, Punjab / CSIR-IHBT, Palampur		
	Mentor: Dr. Bikram Singh, Chief Scientist & HOD, NPC&PDD, CSIR-IHBT		
	(Submitted on 21st May, 2012 and defended on 26th Oct. 2012) entitled		
	"Phytochemical Investigation of Tinospora cordifolia, Asparagus		
	racemosus and Synthesis of Phthalimide Derivatives for		
	Immunomodulatory Active Molecules"		
2005-2006	Research Scholar in Panjab University, Chandigarh		
2003 - 2005	M.Sc Chemistry, DAV collage, Jalandhar, GNDU, Amritsar, 1st Class with 63 %		
2002 - 2003	B.Ed. , Jammu University, Jammu, 1 st Class with 67 %		

SKILLS

- Synthetic methodology development (C-H activation/functionalization leading to value added molecules)
- Isolation and structure elucidation of plant secondary metabolites from Himalayan medicinal plants using modern spectroscopic techniques including NMR (1D & 2D), LC-MS, IR and UV-vis. Development of eco-friendly processing technology at pilot scale for bioactives of industrial importance.
- Medicinal Chemistry: Synthesis of New Heterocycles (Quinoline, Indole, Furan) Derivatives as Potential Therapeutic Agents
- Chemical Profiling using NMR (1D & 2D) and hyphenated chromatographic techniques such as UPLC-MS/MS and GC-MS
- **Analytical Chemistry** using UPLC, HPLC & GC for standardization of plant extracts through development of quantification method for marker compounds

AWARDS/Honours

- Early Career Advisory Board of Asian Journal of Organic Chemistry (2020-)
- Manjushree Pal Memorial Award for Best Oral Presentation from Ethanopharmacology Society of India, Kolkata (2017)
- Chaired a poster session in National Conference on Innovation in Bioprocess Technology (IBT-2019), CIAB, Mohali, Punjab, India, December 11-13, 2019.
- Chaired a poster session in 4th International Congress of the Society for Ethnopharmacology, India Healthcare in 21st century: Perspectives of Ethnopharmacology & Medicinal Plant Research, UKA Tassadia University, Bardoli, Surat, Gujrat on February 23-25, 2017.
- Thieme Chemistry Journal Award (2016)
- D S Kothari Postdoc Fellowship (2012)
- Fast Track Young Scientist project for three years (2012)
- Postdoc Fellowship KAIST, South Korea (2014)
- CSIR Senior Research Fellowship (2009)
- CSIR Junior Research Fellowship (2007)
- GATE (2007)
- CSIR-NET (2006)

INSTITUTIONAL RESPONSIBILITIES

- DAC member of Ph.D students enrolled in AcSIR
- Technical and Purchase Committee Member for the procurement of instruments

PROJECTS

	Project Title	Funding Agency	Duration	Role
1	Transition Metal Catalyzed Simultaneous	SERB-DST	2015-2018	PI
	Distant C-H Activation and Hetero-atom	(EMR/2014/001023)		
	Transfer: Direct Synthesis of Bioactive			
_	Derivatives of Heterocyclic Compounds	DCT	2010	Co DI
2	High throughout genotyping to expedite the genetic characterization and	DST	2018-	Co-PI
	dissection of important agronomic traits			
	of tea			
3	Exploration of Himalayan Plants for Novel	CSIR/Agri Nutri	2019-2020	PI
	Antimalarial Agents: Characterization of	Biotech Mission		
	potential molecules.			
4	Phytopharmaceutical development from	CSIR/Phytopharma	2017-2020	PI
	as <i>Cissampelos pareira</i> per regulatory guidelines of AYUSH	Mission		
5	Technology packages for production of	CSIR/Phytopharma	2017-2020	PI
	GMP grade medicinal plant extracts of	Mission	2017 2020	
	Ginkgo biloba	1411331011		
6	Phytochemical investigation of selected	CSIR/Phytopharma	2017-2020	Co-PI
	high value rare, endangered and	Mission		
	threatened (RET) medicinal Plants			
7	Nutraceutical formulation for boosting	CSIR/Neutraceutical	2018-2020	Co-PI
	bone and cartilage health	Mission		
8	A kaempferol-enriched nutraceutical	CSIR/Neutraceutical	2018-2020	Co-PI
	formulation for ageing bone: to	Mission		
	concurrently stop bone loss and restoring lost bone (CSIR-CDRI, CSIR-IHBT)			
9	Identification of improved clone(s) of	CSIR/Agri Nutri	2018-2020	Co-PI
	Stevia rebaudiana (Bertoni)	BiotechMission		
10	Development of process for converting	CSIR/Agri Nutri	2018-2020	Co-PI
	raw cellulosic biomass into textile fiber	BiotechMission		
	and nanocellulose	510000111411051011		

DISSERTATIONS SUPERVISED

(a) **Ph.D:** Awarded/Submitted: **4** Current: **6**

Pursuing	Awarded	
1. Mr. Inder Kumar	1. Dr. Rakesh Kumar completed thesis entitled "Synthesis	
2. Mr. Ankit Kumar Dhiman	and Derivatization of N-Heterocyclic Compounds	
3. Mr. Patil Shiv Prasad Suresh	through C-H Bond Functionalization" on 5 th February,	
4. Mr. Devesh Chandra	2020.	
5. Ms. Diksha Parmar	2. Dr. Ritika Sharma completed thesis entitled "Synthesis	
6. Ms. Surekha Kumari	of Quinoline Derivatives via Catalytic Remote C-H	
	Activation" on 26th July, 2019.	
	3. Dr. Deepali Katoch completed Thesis entitled	
	"Phytochemical and pharmacological investigation of	
	Zephyranthes grandiflora and Narcissus tazetta for	
	Amaryllidaceae alkaloids and their synthetic	
	modification" 19 th July, 2019.	
	4. Dr. Vinod Bhatt completed thesis entitled	
	"Phytochemical and Synergy-Directed Biological	
	Studies of <i>Zanthoxylum</i> Species" on 15 th Feb, 2018.	

(b) Post graduation training/thesis: National: 15 International: 1

Awarded

International Student Under CSIR-TWAS Fellowship

1. Mrs. Adenike Evelyn ADENIYI, University of Ibadan, Nigeria completed six-month TWAS-CSIR fellowship research on thesis entitled "Suitability of Seed Oil of Hildegardia barteri (Mast. Kosterm) for Production of Selected Bio-Products" in 24th January-July, 2018.

National

- 2. **Mr. Arpit Mahajan, Guru Nanak Dev University**, completed four months training entitled "**Protection of amino acids using phthalic anhydride**" in Jan-April, 2020.
- 3. **Mr. Ayush Kumar**, DAV University, Jalandhar (Pb) completed one-month training on basic lab practices in organic synthesis in January, 2020.
- 4. Dr. Naresh Kumar, IIT, Indore (MP) completed six-month training on synthesis of

heterocyclic molecules in July-December, 2019.

- 5. **Miss. Pooja Babbar** SRM university, Delhi- NCR, completed one and half month training entitled "Study on Isolation and Characterization of Secondary Metabolites from Medicinal Plants" in July-December, 2019.
- 6. **Ms. Ankita Rana**, Chandigarh University, Gharuan, Pb, completed one and half month training entitled "**Study towards Oxidation of Quinoline Derivatives**" in June-August, 2019.
- 7. **Mr. Anurag Shukla**, Amity University, Noida (UP) completed one and half month training entitled "Extraction, qualitative and quantitative analysis of *Camellia sinensis* leaves" May-July, 2019.
- 8. **Mr. Vikrant**, Shoolini University, Solan, HP, completed two-month training entitled "**Synthesis of Quinoline** *N***-oxide and maleimides**" in June-August, 2018.
- 9. **Ms. Vivekshu**, Chandigarh University, Chandigarh, completed one month training entitled "Analytical Techniques used in Phytochemical investigations" in May-June, 2018.
- 10. **Ms. Alka Devi**, Ahilya Vishwavidyalaya, Indore (M.P.) completed six-month training entitled "**Phytochemical and In-silico biological studies of** *Cissampelos pareira*" in January-June, 2018.
- **11. Ms. Jyoti**, Amity University Gurgoan, Haryana, completed two-month training entitled "Extraction, Fractionation and Isolation of Secondary Metabolites from *Cissampelos pareira* Roots" in March-April, 2018.
- 12. **Mr. Sachin**, Amity University Gurgoan, Haryana, completed two-month training entitled "Functionalization of Quinoline and their characterization" in March-April, 2018.
- 13. Mr. Saurabh Kumar, SHUATS, Allahabad, completed one-month training entitled "Fractionation and Isolation of Secondary metabolites from *Cissampelos pareira*" in July, 2017.
- 14. **Mr. Amit**, Amity University Gurgoan, Haryana, completed one-month training entitled "**Phytochemical Investigation of** *Cissampelos pareira*" in July, 2017.
- 15. Ms. Reetu Bala, SGGS College, Punjab University, Chandigarh, completed one-month training entitled "Lewis Acid Catalyzed N-alkylation of 1,2,3,4-Tetrahydroisoquinolines with Acrylates" in July, 2017.
- 16. **Mr. Sachin**, Amity University Gurgoan, Haryana, completed one-month training entitled "**Synthesis of Quinoline N-Oxides and Quinoline Ylides**" in July, 2017.

MEMBERS OF PROFESSIONAL SOCIETY

Life member of Analytical Society of Analytical Scientists since 2008 (LM No. 2008/38).

EDITORSHIP

- 1. Early Career Advisory Board of Asian Journal of Organic Chemistry (2020-)
- 2. Editorial Board Member *Student Journal of chemistry* (Student's Publishing Services, Antalya, Turkey)
- 3. Editorial Board Member *Pharmacolgia a Science Magzine* (pISSN: 2044-4648; eISSN: 2044-4656)

RESOURCE PERSON FOR JOURNALS

Synthetic Chemistry **Natural Product Chemistry ACS Catalysis** Journal of Natural Products **Organic Letters** Journal of Ethanopharamcology **Chemical Communication** Natural Product Reports **Green Chemistry Natural Product Communications** Advance Synthesis & Catalysis Studies in Natural Product Chemistry Organic Chemistry Frontier Phytochemical Analysis The Journal of Organic Chemistry Separation Science and Technology Biomedicine & Pharmacotherapy ACS Omega New Journal of Chemistry Toxicology and Environmental Health Sciences Chemistry Select Agriculture Water Management Catalysis Letter Journal of Functional Foods Journal of Heterocyclic Chemistry SN Applied Science Organic Chemistry-An Indian Journal Journal of Functional Food and Analysis Polyhedron Chinese Journal of Natural Medicines **Synthesis** Chemico-Biological Interaction

PHD THESIS EXAMINER

PhD Thesis Evaluated till date: 4 Viva Exam Taken: 2

PUBLICATIONS

Total: **102** Citation: **>2300** h-index: **26** i-10 index: **52**

After Independent Research Lab: 56

Book Chapter: 3 Patent: 4 (filed)

Invited/Oral Presentations: 12 Paper presented in conferences: 28

S. No.	Names of all the authors	TITLE OF THE PAPER	Name of the Journal, volume, YEAR AND PAGE
102	Rakesh Kumar, Diksha Parmar, Shiv Shankar Gupta, Devesh Chandra, Ankit Kumar Dhiman and Upendra Sharma*	Cp*Rh(III)-Catalyzed Sterically Controlled C(sp³)-H Selective Mono- and Diarylation of 8- Methylquinolines with Organoborons	Chemistry-A European Journal, 2020, 26, 4396-4402.
101	Prithvi Pal Singh, Prateek Singh Bora, Patil Shivprasad Suresh, Vinod Bhatt, and Upendra Sharma*	(Published as Hot Paper) Qualitative and quantitative determination of steroidal saponins in Trillium govanianum by UHPLC-QTOF-MS/MS and UHPLC-ELSD	Phytochemical Analysis, 2020, DOI: 10.1002/pca.2951.
100	Prithvi Pal Singh, Patil Shivprasad Suresh, Prateek Singh Bora, Vinod Bhatt, and Upendra Sharma*	Govanoside B, A New Steroidal Saponin from Rhizomes of Trillium govanianum	Natural Product Research, 2020, doi:10.1080/147864 19.2020.1761360.
99	Shiv Shankar Gupta, Surekha Kumari, Inder Kumar and Upendra Sharma*	Eco-friendly and Sustainable Synthetic Approaches for Biologically Significant Fused <i>N</i> - Heterocycles. (<i>Invited Article</i>)	Chemistry of Heterocyclic Compounds, 2020, 56, 433-444.
98	Rakesh Kumar, Ritika Sharma, Rohit Kumar and Upendra Sharma*	Cp*Rh(III)-Catalysed Regioselective C(sp³)-H Methylation of 8- Methylquinolines with Organoborons.	<i>Organic Letters</i> , 2020, <i>22</i> , 305-309.
97	Rohit Kumar, Rakesh Kumar, Diksha Parmar, Shiv Shankar Gupta and Upendra Sharma*	Ru(II)/ Rh(III)-Catalyzed C(sp³)-C(sp³) Bond Formation through C(sp³)-H Activation: Selective Linear Alkylation of 8-Methylquinolines and Ketoximes with Olefins.	The Journal of Organic Chemistry, 2020, 85, 1181-1192.

96	Shiv Shankar Gupta,	Regioselective Arylation of	ACS Omega,
	Rakesh Kumar and	Quinoline N-Oxides (C8),	2020 <i>, 5,</i> 904-913.
	Upendra Sharma*	Indolines (C7) and N-tert-	
		Butylbenzamide with	
		Arylboronic Acids.	
95	Deepali Katoch*,	Narciclasine-4- <i>O</i> - <i>β</i> - <i>D</i> -	Natural Product
	Dharmesh Kumar,	xylopyranoside, a new	Research, 2020, 34,
	Yogendra S Padwad,	narciclasine glycoside from	233-240.
	Bikram Singh,*	Zephyranthes minuta.	
94	Upendra Sharma*	Antiquidant Antiqualiforative	Antiquidants 2020
94	Sandeep Kaur, Ajay Kumar,	Antioxidant, Antiproliferative	Antioxidants, 2020, 9, 173.
	Sharad Thakur, Kapil	and Apoptosis-Inducing Efficacy	doi:10.3390/antiox9
	Kumar, Ritika Sharma,	of Fractions from Cassia fistula	020173
	Anket Sharma, Prabhpreet	L. Leaves.	
	Singh, Upendra Sharma ,		
	Subodh Kumar, Marco		
	Landi *, Marián Brestič,		
	Satwinderjeet Kaur *		
93	Deepali Katoch*,	Pseudolycorine <i>N</i> -oxide, a new	Natural Product
	Dharmesh Kumar, Yogendra S Padwad,	N-oxide from Narcissus tazetta.	Research, 2019, doi.org/10.1080/147
	Bikram Singh,*		86419.2019.1574785
	Upendra Sharma*		00413.2013.1374703
92	Deepali Katoch* and	Simultaneous Quantification and	Journal of
	Upendra Sharma*	Identification of Amaryllidaceae	Pharmaceutical and
		Alkaloids in Narcissus tazetta by	Biomedical Analysis,
		Ultra Performance Liquid	2019 <i>, 175</i> , 112750.
		Chromatography-Diode Array	
		Detector-Electrospray Ionisation	
		Tandem Mass Spectrometry.	
91	Ankit Kumar Dhiman, Shiv	Rh(III)-Catalyzed C(8)-H	The Journal of
	Shankar Gupta, Ritika	Activation of Quinoline N-	Organic Chemistry,
	Sharma, Rakesh Kumar	oxides: Regioselective C-Br	2019 <i>, 84,</i> 12871-
	and Upendra Sharma*	and C-N Bond Formation	12880.
		(Part of Special Issue:	
		C-H Bond Functionalization)	
90	Ankit Kumar Dhiman,	Catalyst-Free Synthesis of 2-	The Journal of
	Devesh Chandra, Rakesh	Anilinoquinolines and 3-	Organic Chemistry,
	Kumar and Upendra	Hydroxyquinolines via Three-	2019 <i>, 84</i> , 6962-6969.
	Sharma*	Component Reaction of	
		Quinoline N-oxides,	
		Aryldiazonium salts and	
L		<u> </u>	<u> </u>

		Acetonitrile	
89	Devesh Chandra, Ankit Kumar Dhiman, Rakesh Kumar, Upendra Sharma*	Microwave-Assisted Metal-Free Rapid Synthesis of C4-Arylated Quinolines via Povarov Type Multicomponent Reaction.	European Journal of Organic Chemistry, 2019, 2019, 2753- 2758.
88	Meenakshi Thakur, Shruti Sharma, Upendra Sharma, Rakesh Kumar	Study on effect of pruning interval on growth, yield and quality of scented rose (Rosa damascena Mill.) varieties under acidic conditions of western Himalayas	Journal of Applied Research on Medicinal and Aromatic Plants, 2019, 13, 100202
87	Ritika Sharma, Rakesh Kumar, Upendra Sharma*	Rh/O ₂ -Catalyzed C8 Olefination of Quinoline <i>N</i> -oxides with Activated and Unactivated Olefins.	The Journal of Organic Chemistry, 2019, 84, 2786-2797.
86	Rakesh Kumar, Rohit Kumar, Devesh Chandra, Upendra Sharma*	Cp*Co(III)-Catalyzed Alkylation of Primary and Secondary C(sp³)-H Bonds of 8-Alkylquinolines with Maleimides.	The Journal of Organic Chemistry, 2019, 84, 1542-1552.
85	Rakesh Kumar, Ritika Sharma, Inder Kumar, Pooja Upadhyay, Ankit Kumar Dhiman, Rohit Kumar, Rakesh Kumar, Rituraj Purohit,* Dinkar Sahal* and Upendra Sharma*	Evaluation of antiplasmodial potential of C-2 and C-8 modified quinolines: in vitro and in silico study.	Medicinal Chemistry, 2019, 15, 790-800.
84	Ritika Sharma, Rakesh Kumar, Rohit Kumar, Pooja Upadhyay, Dinkar Sahal, Upendra Sharma*	Rh(III)-Catalyzed C(8)-H Functionalization of Quinolines via Simultaneous C-C and C-O Bond Formation: Direct Synthesis of Quinoline Derivatives with Antiplasmodial Potential.	The Journal of Organic Chemistry, 2018, 83, 12702- 12710.

83	Rakesh Kumar, Sandeep Chaudhary, Rohit Kumar, Pooja Upadhyay, Dinkar Sahal, Upendra Sharma*	A Catalyst and Additive-free Diastereoselective 1,3-Dipolar Cycloaddition of Quinolinium Imides with Olefins, Maleimides and Benzynes: Direct Access to Fused N,N'-Heterocycles with Promising Activity against Drug Resistant Malaria Parasite.	The Journal of Organic Chemistry, 2018, 83, 11552-11570.
82	Ritika Sharma, and Upendra Sharma*	Remote C-H Bond Activation/Transformations: A Continuous Growing Synthetic Tool; Part II.	Catalysis Reviews: Science and Engineering, 2018, 60, 497-565.
81	Inder Kumar, Ritika Sharma, Rakesh Kumar, Rakesh Kumar, and Upendra Sharma*	C70 Fullerene-Catalyzed Metal- Free Photocatalytic ipso- Hydroxylation of Aryl Boronic Acids: Synthesis of Phenols.	Advanced Synthesis & Catalysis, 2018, 360, 2013-2019.
80	Inder Kumar, Rakesh Kumar and Upendra Sharma*	Recent Advances in Regioselective Synthesis of Indoles <i>via</i> C-H Activation/Functionalization.	Synthesis, 2018, 50, 2655-2677.
79	Shruti Sharma, Vijeta Patial,; Dharam Singh, Upendra Sharma,* Dinesh Kumar*	Antimicrobial homoisoflavanoids from the rhizomes of <i>Polygonatum</i> verticillatum.	Chemistry and Biodiversity 2018, 15, e1800430
78	Vinod Bhatt, Neeraj Kumar Upendra Sharma and Bikram Singh*	Comprehensive metabolic profiling of Zanthoxylum armatum and Zanthoxylum acanthopodium leaves, bark, flowers and fruits using Ultra high performance liquid chromatography. (Highlighted in Cover Page of the Journal: doi.org/10.1002/sscp.201870017)	Separation Science Plus, 2018, 1, 311.
77	Dinesh Kumar and Upendra Sharma*	High-performance thin-layer chromatography: An economical	Separation Science Plus, 2018, 1, 100.

76	Ritika Sharma, Rupali	alternative for the quality control of medicinal plants and derived products. (Highlighted in Cover Page of the Journal: doi.org/10.1002/sscp.201870007) Comprehensive Metabolomics	Natural Product
	Jandrotia, Bikram Singh, Upendra Sharma* and Dinesh Kumar*	Study of Traditionally Important <i>Rumex</i> Species Found in Western Himalayan Region.	Communications, 2018, 13, 189.
75	Ashun Chaudhary, Sonika Choudhary, Upendra Sharma , Adarsh Pal Vig, Bikram Singh and Saroj Arora*	Purple Head Broccoli (<i>Brassica oleracea</i> L. var. italica Plenck), A Functional Food Crop for Antioxidant and Anticancer Potential.	Journal of Food Science and Technology 2018, 55, 1806.
74	Dinesh Kumar,* Pawan Kumar and Upendra Sharma*	UPLC-DAD-MS based quality control and discrimination analysis of different aerial parts of <i>Crataegus rhipidophylla</i> Gand. found in Indian western Himalaya.	Analytical Chemistry Letters, 2018, 8, 177.
73	Manoranjan Kumar, Krishna Thakur, Sushila Sharma, Onkar S. Nayal, Neeraj Kumar, Bikram Singh* and Upendra Sharma *	Solvent-free, L-leucine catalyzed direct dehydrative esterification of carboxylic acids with alcohols: Direct synthesis of 3-alkoxy 1(3H)-isobenzofuranone.	Asian Journal of Organic Chemistry, 2018, 7, 227.
72	Ankit Kumar Dhiman, Rakesh Kumar, Rakesh Kumar* and Upendra Sharma*	Metal-free synthesis of 2-substituted-3-(2-hydroxyaryl)quinolines and 4-(2-hydroxyaryl)acridines via benzyne chemistry.	The Journal of Organic Chemistry, 2017, 82, 12307.
71	Ritika Sharma, Inder Kumar, Rakesh Kumar, Upendra Sharma*	Rhodium-Catalyzed Remote (C-8) alkylation of Quinolines with Activated and Unactivated Olefins: Mechanistic Study and Total Synthesis of EP4 Agonist. (Highlighted in Science Trends: https://sciencetrends.com/rhiiicatalyzed-distal-alkylation-quinoline-application-total-synthesis/)	Advanced Synthesis & Catalysis, 2017, 359, 3022.
70	Manoranjan Kumar, Vinod Bhatt, Onkar S. Nayal,	Cul nanoparticles as a recyclable heterogeneous catalyst for C-N	Catalysis Science & Technology, 2017,

	Sushila Sharma, Vishal Kumar, Maheshwar S. Thakur, Neeraj Kumar, Rajaram Bal,* Bikram Singh* and Upendra	bond formation reactions.	7, 2857
69	Sharma* Rakesh Kumar, Rakesh Kumar, Ankit Kumar Dhiman and Upendra Sharma*	Regioselective Metal-free C(2)-H Arylation of Quinoline N-oxides with Aryldiazonium Salts/Anilines under Ambient Conditions	Asian Journal of Organic Chemistry, 2017, 6, 1043.
68	Arti Sharma, Ritika Sharma, Rohit Arora, Saroj Arora, Bikram Singh* and Upendra Sharma *	Quantitative and Qualitative Analysis of <i>Eruca sativa</i> and <i>Brassica juncea</i> Seeds by UPLC- DAD and UPLC-ESI-QTOF.	Natural Product Communications, 2017, 12, 1485.
67	Vinod Bhatt, Sushila Sharma, Neeraj Kumar, Upendra Sharma and Bikram Singh	Chemical Composition of Essential Oil among Seven Populations of Zanthoxylum armatum from Himachal Pradesh: Chemotypic and Seasonal Variation.	Natural Product Communications, 2017, 12, 1643.
66	Manoranjan Kumar, Sushila Sharma, Krishna Thakur, Onkar S. Nayal, Vinod Bhatt, Maheshwar S. Thakur, Neeraj Kumar, Bikram Singh*, and Upendra Sharma *	Montmorilonite K10 catalyzed microwave assisted direct amidation of unactivated carboxylic acids with amines: Applicable for maintaining chiral integrity of substrates.	Asian Journal of Organic Chemistry, 2017, 6, 342.
65	· · · · · · · · · · · · · · · · · · ·	Locational Comparison of Essential Oils from Selected Conifers of Himachal Pradesh.	Natural Product Research, 2017, 31, 1578.
64	Vinod Bhatt, Sushila Sharma, Neeraj Kumar, Upendra Sharma , Bikram Singh*	Simultaneous quantification and identification of flavonoids, lignans, coumarin and amides in leaves of <i>Zanthoxylum armatum</i> using UPLC-DAD-ESI-QTOF—MS/MS.	Journal of Pharmaceutical and Biomedical Analysis, 2017, 132, 46-55.
63	Madhu Chandel, Manish Kumar, Upendra Sharma , Bikram Singh, Satwinderjeet Kaur	Investigations on antioxidant, antiproliferative and COX-2 inhibitory potential of alkaloids from <i>Anthocephalus cadamba</i>	Chemistry & Biodiversity, 2017, 14, e1600376.

		(Roxb.) Miq. Leaves.	
62	Rajeev Rattan,* Bharat Inder Fozdar, Veena Gautam, Ritika Sharma, Dinesh Kumar* and Upendra Sharma *	Cuspidate A, New Anti-Fungal Triterpenoid Saponin from Lepidagathis cuspidate.	Natural product Research, 2017, 31, 773.
61	Madhu Chandel, Manish Kumara, Upendra Sharma , Bikram Singh and Satwinderjeet Kaur*	Antioxidant, Antigenotoxic and Cytotoxic Activity of Anthocephalus cadamba (Roxb.) Miq. Bark Fractions and their Phytochemical Analysis Using UPLC-ESI-QTOF-MS.	Combinatorial Chemistry & High Throughput Screening, 2017, 20, 760.
60	Sushila Sharma, Manoranjan Kumar, Vinod Bhatt, Onkar S. Nayal, Maheshwar S. Thakur, Neeraj Kumar, Bikram Singh,* and Upendra Sharma*	Vasicine from Adhatoda vasica as an organocatalyst for metal-free Henry reaction and reductive heterocyclization of onitroacylbenzenes.	Tetrahedron Letter, 2016, 45, 5003.
59	Sushila Sharma, Manoranjan Kumar, Onkar S. Nayal, Maheshwar S. Thakur, Vinod Bhatt, Neeraj Kumar, Bikram Singh* and Upendra Sharma*	Designing of Vasicine Derived Ligands and Their Application for Ruthenium Catalyzed Transfer Hydrogenation Reactions in Water: Synthesis of Amines and Alcohols	Asian Journal of Organic Chemistry, 2016, 5, 1471-1479.
58	Sushila Sharma, Manoranjan Kumar, Shruti Sharma, Onkar S. Nayal, Neeraj Kumar, Bikram Singh* and Upendra Sharma*	Microwave Assisted Vasicine Catalyzed Synthesis of Phenanthridinones via Intramolecular C-H Arylation with Aryl Halides. (Highlighted in Synfacts 2016, 12(12): 1244)	Organic & Biomolecular Chemistry, 2016, 14, 8536.
57	Onkar S. Nayal, Maheshwar S. Thakur, Vinod Bhatt, Manoranjan Kumar, Neeraj Kumar, Bikram Singh* and Upendra Sharma*	Synthesis of tertiary arylamines: Lewis acid-catalyzed direct reductive <i>N</i> -alkylation of secondary amines with ketones through an alternative pathway.	Chemical Communications, 2016, 52, 9648.
56	Rakesh Kumar, Inder Kumar, Ritika Sharma, Upendra Sharma*	Catalyst and Solvent-Free alkylation of Quinoline <i>N</i> -oxides with Olefins: Direct Access to Quinoline Substituted α– Hydroxy Carboxylic Derivatives.	Organic & Biomolecular Chemistry, 2016, 14, 2613.
55	Dinesh Kumar,* Ashu	Determination of Theanine and	Food Analytical

	Gulati, Upendra Sharma*	Catechin in Camellia sinesis (Kangra Tea) Leaves by HPTLC and NMR Techniques.	Methods, 2016, 9, 1666.
54	Madhu Chandel, Manish Kumar, Upendra Sharma, Neeraj Kumar, Bikram Singh, Satwinderjeet Kaur	Isolation and characterization of flavanols from <i>Anthocephalus cadamba</i> and evaluation of their antioxidant, antigenotoxic, cytotoxicand COX-2 inhibitory activities.	Brazilian Journal of Pharmacognosy, 2016, 26, 474.
53	Ashun Chaudhary, Sonika Choudhary, Upendra Sharma and Saroj Arora	In vitro evaluation of antioxidant, antiproliferative and apoptotic induction on prostate cancer cell line by nonpolar constituents in brassica sprouts extracts.	Indian J. Pharmaceutical Sciences, 2016, 78, 615.
52	Rajeev Rattan, Amita Kumari, Veena Gautam, Bharat Inder Fozdar, Upendra Sharma* and Dinesh Kumar*	Preliminary Phytochemical Screening, Antioxidant and Antifungal Activity of Lepidagathis cuspidate.	International Journal of Drug Development and Research 2016, 8, 001-003.
51	Ritika Sharma, Rakesh Kumar, Inder Kumar, Upendra Sharma*	Rh(III)-Catalyzed Dehydrogenative Coupling of Quinoline N-Oxides with Alkenes: N-Oxide as Traceless Directing Group for Remote C-H Activation.	European Journal of Organic Chemistry 2015, 7519.
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BOOK CHAPTER

- 1. P. S. Suresh, V. Bhatt, P. P. Singh, and U. Sharma.* Steroidal Sapogenins from Genus Trillium: Chemistry, Synthesis, and Opportunities in Neuro-active Steroids Designing. *Studies in Natural Product Chemistry*, 2020, accepted.
- **2. U. Sharma**, A. Modak, S. Maity, A. Maji and D. Maiti. Direct Arylation *via* C-H activation. Thomas Colacot eds., *Introduction to New Trends in Cross-Coupling: Theory and Applications*. 2014.
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- M. Sharma, S. Thakur, U. Sharma and S. Kumar. An eco-friendly process for isolation of fiber from plant species and product thereof. Date of Filing: 22-04-2020. (Ref. No.: 0054NF2020)
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- **4.** B. Singh, S. Chattergi, N. Kumar and **U. Sharma**. Benzothiazole Substituted Phthalimide Analogues as Potential Angiogenesis Inhibitors. Date of Filing: 31-03-2011. (Ref. No. 0918 DEL 2011)

PAPER PRESENTED IN CONFERENCE

Invited/Oral Presentations (National/International)

2020

1. "Regioselective C(sp³)-Methylation, Alkylation and Arylation via C(sp³)-H Activation" in International conference on organometallics and Catalysis-II (ICOC-II, 2020) at Holiday Inn Resort, Goa, India during March 07-10, 2020.

- 2. "Don't forget the Past: Traditional Knowledge Derived Discovery of Novel Bioactive Molecules" in National Conference on Innovation in Bioprocess Technology (IBT-2019), CIAB, Mohali, Punjab, India, December 11-13, 2019.
- 3. "Remote C-H Activation: Direct Access to C8-Functionalized Quinolines International Conference" in Catalysis and Organic Synthesis (ICCOS-2019), Moscow, Russia, September 15-20, 2019.
- **4.** "Innovative Approaches for the Synthesis of Antimalarial Quinolines" in Natural Product Based Therapeutics in Drug Development, NIPER-Raebareli, Lucknow, 14-15 Feb. 2019.

- 5. "Quinoline Functionalization via C-H Bond Activation: Synthesis of Anti-malarial Quinolines" in International conference on organometallics and Catalysis (ICOC 2018) at Holiday Inn Resort, Goa, India during December 13-16, 2018.
- **6.** "Herbal Material: Basic Research and Issue of Contamination" in two Week Intensive Course on Recent Trends and Challenges in Regulation and Standardization of Herbal Drugs and Formulations" organised by NIPER-SAS Nagar, 06-16 August 2018.

2017

- 7. "Quinoline Functionalization through Remote C-H Activation Using Traceless Directing Group" in Contemporary Facets in Organic Chemistry Synthesis (CFOS) 2017, IIT Roorkee, Uttarakhand, 22-24 December, 2017.
- 8. "Medicinal Plant Processing: Novel Bioactive Molecules" in Scenario of Medicinal Plants in Himalayan Region-Cultivation, Processing and Marketing, CSIR-IHBT, Palampur, India. Organised by State Medicinal Plants Board, Himachal Pradesh, Ayurveda Bhawan, SDA Complex, Kasumpti, Shimla on 10-11 October, 2017.
- "Traditional Knowledge: A Perfect Guide for the Discovery of Novel Bioactive Molecules" in Seventh Euro-India International Conference on Holistic Medicine (ICHM-2017), Kottayam, Kerala, India on 15-17 September 2017.
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- 11. "Efforts Towards Characterization of Bioactive Molecules from Medicinal Plants" 4th International Congress of the Society for Ethnopharmacology, India Healthcare in 21st century: Perspectives of Ethnopharmacology & Medicinal Plant Research, UKA Tassadia University, Bardoli, Surat, Gujrat on February 23-25, 2017.
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2016

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12. "Phytochemical Investigation of *Tinospora cordifolia* and *Asparagus racemosus* for Potential Immunmodulatory Agents" in Scientific Validation of Traditional knowledge, IIT Rorkee, Uttarakhand on March 12-13, 2016 Organized by MHRD-IPR Chair IIT Roorkee, Uttarakhand

Poster Presentation/Oral Presentation from Group 2019

- **1.** S. Patil, P. Singh, and **U. Sharma***. Steroidal Saponins from Trillium govanianum: Isolation and Characterization. Gyantarang 2020, CSIR-NEIST, Jorhat Assam, 23-25 January 2020.
- 2. R. Kumar and U. Sharma.* New Bioactive Molecules through C-H Bond Functionalization and [3+2] Cyclization of N-Heterocyclic Compounds in New Frontiers in Chemistry From Fundamentals to Applications (NFCFA2019), Department of Chemistry, BITS Pilani, KK Birla, Goa Campus, 20-22 December, 2019. (*Third Prize for this Poster*)
- **3.** R. Kumar and **U. Sharma**.* Employing C-H activation for the synthesis of quinoline containing antimalarials in New Frontiers in Chemistry From Fundamentals to Applications (NFCFA2019), Department of Chemistry, BITS Pilani, KK Birla Goa Campus, 20-22 December, 2019.
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- **5.** A.K. Dhiman and **U. Sharma.*** Design and Synthesis of Quinoline based Bioactive Heterocyclic Molecules through C-H Functionalization in New Frontiers in Chemistry From Fundamentals to Applications (NFCFA2019), Department of Chemistry, BITS Pilani, KK Birla Goa Campus, 20-22 December, 2019.
- **6.** I. Kumar and **U. Sharma.*** Photocatalyzed Metal/Oxidant-free ipso-Hydroxylation of Boronic Acids: Direct Synthesis of Phenols in New Frontiers in Chemistry From Fundamentals to Applications (NFCFA2019), Department of Chemistry, BITS Pilani, KK Birla Goa Campus, 20-22 December, 2019.
- **7.** A. K. Dhiman and **U. Sharma**.* Microwave-Assisted Metal-Free Three Component Reaction for Direct Synthesis of 2-Anilinoquinolines and 3-Hydroxyquinolines. In 25th CRSI National Symposium in Chemistry and CRSI-ACS 18-21 July, 2019, IIT Kanpur.
- **8.** R. Kumar and **U. Sharma**.* Cobalt(III)-Catalyzed Alkylation of C(sp³)-H Bonds of 8-Alkylquinolines with Maleimides. In 25th CRSI National Symposium in Chemistry and CRSI-ACS 18-21 July, 2019, IIT Kanpur.
- **9.** D. Chandra and **U. Sharma**.* Rapid Synthesis of Quinoline by Organic Acid Mediated Povarov Type Multicomponent Reaction. In 25th CRSI National Symposium in Chemistry and CRSI-ACS 18-21 July, 2019, IIT Kanpur.

- 10. A. K. Dhiman, S. Chaudhary, R. Kumare, R. Kumar and U. Sharma.* Synthesis of 2-substituted-3-(2-hydroxyaryl)quinolines and 4-(2-hydroxyaryl)acridines. in Contemporary Facets in Organic Chemistry Synthesis (CFOS) 2017, IIT Roorkee, Uttarakhand, 22-24 December, 2017.
- **11.** R. Sharma, R. Kumar, I. Kumar and **U. Sharma**.* [Cp*RhCl₂]₂ Catalyzed Remote Functionalization of Quinolines and their Mechanistic Understanding. *Indo-US Bilateral Workshop* Organised by IISc Bangalore, IISER Kolkata and IIT Mumbai at Rhythm Lonavala, Lonavala, Maharashtra, India during December 7-10, 2017.
- **12.** R. Kumar, A. K. Dhiman and **U. Sharma**.* Metal-free C-2 Arylation of Quinoline *N*-Oxides with Aryldiazonium Salts/Anilines. *21*st *CRSI National Symposium in Chemistry* n organised by CSIR-IICT, Tarnaka Hyderabad-500007 on 2017.
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- 14. Onkar S Nayal, M S Thakur, N. Kumar, U. Sharma* and B. Singh.* Novel Approches for the Synthesis of Tertiary Amines via Carbocationic Pathway. VI National Symposium on Advances in Chemical Science at GNDU, Amritsar, Punjab, India on 5-6 March, 2017. (Best Poster Award)

- **15.** R. Sharma, I. Kumar and **U. Sharma**.* Rhodium-catalyzed remote C-H activation using traceless directing group. **21**st **International Conference on Organic Chemistry**, IIT Bombay, Bombay, India on 11-16 December, 2016.
- 16. Rakesh Kumar, Ankit Kumar Dhiman and Upendra Sharma. Catalyst and Solvent Free Access to Bioactive Quinoline Derivatives. 21st International Conference on Organic Chemistry, IIT Bombay, Bombay, India on 11-16 December, 2016.
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- 19. A. Chaudhary, U. Sharma, A. P. Vig, V. Sharma, B. Singh and S. Arora. Biological and Chemical Investigation of Brassica oleracea L. Var. italica Plenck (Broccoli) at Different Developmental Stage. ICEMCH–2016, International Conference on Environmental Mutagenesis, Carcinogenesis and Health and 40th Annual Meeting of Environmental Mutagen Society of India (EMSI), GNDU, Amritsar, India on 17-19 February, 2016.
- **20.** M. Chandel, M. Kumar, **U. Sharma**, N. Kumar, B. Singh and S. Kaur. Isolation and Characterization of Phytoconstituents from *Anthocephalus cadamba* (Roxb.) Miq.

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