




Faculty Details proforma for DU Web-site

Title	Professor	First Name	Akhilesh Kumar	Last Name	Verma	Photograph
Designation		Professor, FNA, FRSC				
Address		Room No. 1158, Block B Department of Chemistry, North Campus, University of Delhi Delhi-110007				
Phone No Office		91-11-27666646 (Ext.175)				
Residence		011-27298955				
Mobile		09717831262				
Email		averma@acbr.du.ac.in , akhilesh682000@gmail.com				
Web-Page		www.akvresearchgroup.com				
3Educational Qualifications						
Degree	Institution	Year				
Ph.D.	Dept. of Chemistry, University of Delhi, Delhi	2000	Chemistry			
PG	Bipin Bihari PG College Jhansi, Bundelkhand University	1992	Organic Chemistry			
UG	Bipin Bihari PG College Jhansi, Bundelkhand University	1990	Chemistry, Zoology			
Career Profile						
Organization / Institution	Designation/ Award	Duration	Role			
Dept. of Chemistry, University of Delhi, Delhi	Professor	29th March 2013-Till date	Teaching and Research			
School of Physical Sciences, Jawaharlal Nehru University, Delhi, India	Professor	21 st January 2015-18 th November 2015 (on Lien from DU)	Teaching and Research			
Dept. of Chemistry, University of Delhi, Delhi	Associate Professor	29 th March 2010- 29th March 2013	Teaching and Research			
Dept. of Chemistry, University of Delhi, Delhi	Reader	23 rd Jan 2009-28 th March 2010	Teaching and Research			
Dr. B.R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi	Lecturer	Feb. 1998-2009	Teaching and Research			
University of Florida, Gainesville, USA	Postdoctoral Fellow	Jan. 2001-Dec 2001	Research			
University of Florida, Gainesville, USA	Postdoctoral Research Associate	Jan. 2002-Dec 2002	Research			
University of Science and Technology, Ames, Iowa, USA	Visiting Scientist	June 2007-Aug. 2008	Research			

Administrative Assignments

- **Chairman**, Governing Body, Ramjas College, Univ. of Delhi (Two Years: March 2019-March 2021)
- Chairman/Coordinator of Delhi University Central Admissions Grievances Redressal Committee (2015-2018/2019)
- Core Committee Member Delhi University Admissions (2015-18)
- Admission In-Charge of M.Sc. of Department of Chemistry
- Admission In-Charge of Ph.D. Admission of Department of Chemistry
- NAAC coordinator Department of Chemistry
- Members of various selection Committees of University/IIT's/NIT's
 - (1. Screening/ appointment of Principal in DU Colleges)
 - (2. Appointment of Assistant/Associate/Professor)
- Convener Advanced Organic Chemistry II (CHM 108) [at ACBR]
- Convener Advanced Organic Chemistry I (CHM 107) [at ACBR]
- In-charge Summer Under Graduate Research Programme (**SURP**) at ACBR 2003 and 2004
- In-charge for the Educational trip of M.Sc/Ph.D students of ACBR in the year 1998 and 2000
- Construction Co-coordinator of ACBR
- Admission in-charge M.Sc/Ph.D Biomedical courses entrance examination (Twice at ACBR)
- Syllabus formulation and revision of B.Sc. Biomedical Sciences course
- Co-Convener: CBISNF-2004 (International Conference)
- Treasurer ETDDD 2013
- Convener ETDDNP 2018
- Convener JNOST 2019

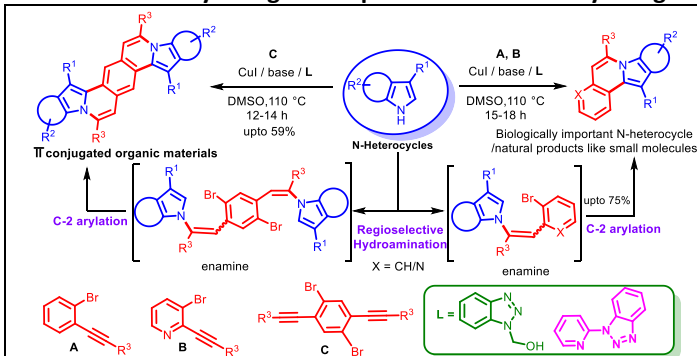
Areas of Interest / Specialization

Areas of Interest: Synthetic Organic Chemistry / Bioorganic Chemistry

- Cascade and Tandem reactions for the synthesis of multi ring heterocyclic compounds
- Design of benzotriazole based novel ligands for the copper and palladium-catalyzed coupling reactions
- Alkyne Chemistry: i. Electrophilic cyclization of alkynes; ii Stereoselective hydroamination of alkynes; iii synthesis of fused heterocyclic systems by electrophilic iodocyclization of alkynes
- Sequential coupling reactions and [3+2] alkyne annulation

1. Scientific Contribution/Achievements

1. Novel Chemistry being developed in our Laboratory using inhouse designed ligand



We have designed a novel strategy for the copper-catalyzed tandem synthesis of indolo- and pyrrolo[2,1-a]isoquinolines (core nucleus of Cryptaustoline and Cryptowoline) from *ortho*-haloarylalkynes by the sequential intermolecular addition of *N*-heterocycles onto alkynes (hydroamination) followed by intramolecular ring closure by C-2 arylation. This chemistry involves preferential nucleophilic addition of *N*-heterocycles onto *ortho*-haloarylalkynes over *N*-arylation of aryl halides. Developed chemistry has the potential to allow direct access to various types of diversely substituted *N*-heterocycles /carbocycles/natural products, synthetic drugs, and π -conjugated organic materials.

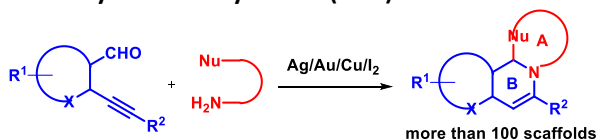
Angew. Chem Int. Ed. **2009**, *48*, 1138 (Cit:195); *OL*, **2011**, *13*, 1630 (Cit: 76); *JOC*, **2012**, *77*, 5633 (Cit: 63); *OL*, **2012**, *14*, 1106 (Cit: 40); *JOC*, **2012**, *77*, 8191 (cit: 46); *JOC*, **2014**, *79*, 172 (Cit:26); *TL*, **2014**, *55*, 1310 (Cit:32); *Acc. Chem. Res* **2017**, *50*, 240 (Cit: 101); *JOC*, **2018**, *83*, 11686 (Cit:08); *OL*, **2021**, *23*, 565

2. Chemoselective oxidative esterification of aldehydes without affecting alkynes and 1° alcoholic groups: New addition to the functional group transformations

This is another interesting and practically useful novel chemistry being developed in our group. This developed process provides novel access to the chemoselective synthesis of esters from aldehydes without oxidizing/affecting the primary alcoholic and alkyne group present in the substrate via the formation of hypiodide intermediate. The developed oxidative esterification process provides a powerful tool for the synthesis/preparation of a wide range of functionalized pyranoquinolinones, isocoumarins, α -pyranones, and natural products. This process is a useful addition in the organic functional group transformation where protection and deprotection are generally required.

Chem. Comm., **2010**, 46, 4064 (cit: 102); *JOC*, **2010**, 75, 7691 (Cit: 92); *A. JOC*, **2017**, 6, 1893 (Cit:4)

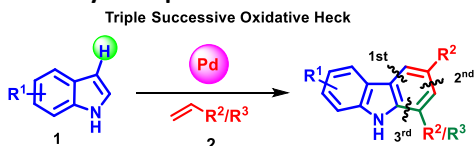
3. Diversity Oriented Synthesis (DOS) of Over Hundred Natural-Product-Likes and π -Conjugated Scaffolds



OL, **2019**, 211, 35059 (Cit:6); *Chem. Commun.*, **2019**, 55, 10721 (Cit:2); *JOC*, **2018**, 83, 6650 (Cit:06); *JOC*, **2017**, 82, 6388 (Cit:10); *JOC*, **2016**, 81, 9356 (Cit: 10); *Green Chem.*, **2016**, 18, 6367 (Cit:12); *JOC*, **2015**, 80, 10548 (Cit:20); *OBC*, **2014**, 12, 552 (Cit:23); *TL*, **2014**, 55, 610 (Cit:11); *JOC*, **2013**, 78, 6657 (Cit: 72); *JOC*, **2013**, 78, 4386 (Cit:56); *EJOC*, **2012**, 4590 (Cit:39); *Tetrahedron* **2012**, 68, 9035 (Cit: 32); *Green. Chem.* **2011**, 13, 1640 (Cit:674); *Chem. Commun.* **2010**, 46, 4064 (Cit:102)

In this project we have designed a novel strategy for the synthesis of over a hundred heterocyclic/natural-product-like and π -conjugated scaffolds. The strategy involves the reaction of ortho-alkynyl aldehydes with appropriate amines/nucleophiles under Ag/Au/Cu-catalysis by sequential i) intermolecular C-N bond formation, ii) two intramolecular C/N/O/S-C bond formation, and iii) N-C bond formation. The scope of the developed chemistry was successfully extended for the synthesis of diastereoselective molecules.

4. Discovery of Triple Successive Oxidative Heck: Direct Synthesis of Carbazoles from Indoles



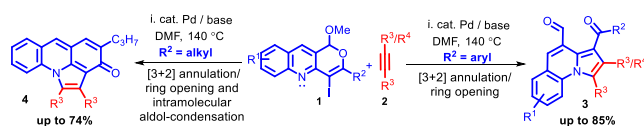
- C-H activation over Michael addition
- NH-directed C-H functionalization
- Highly regioselective
- Low oxidant loading

$R^1 = \text{H, Br, OMe, NO}_2, \text{vinyl, aryl}$; $R^2/R^3 = \text{COOMe, COOEt, COO}^t\text{Bu, COMe, Ph}$

OL, **2015**, 17, 3658 (Cit: 78); *Chem. Eur. J.* **2015**, 21, 18601 (Cit: 43); *Tet*, **2017**, 73, 2415 (Cit: 18)

Our group has discovered another cutting-edge chemistry in the field of C-H functionalization. His group has developed a novel Pd(II)-catalyzed approach for the direct synthesis of carbazoles from indoles via regioselective triple successive oxidative Heck. The proposed mechanistic pathway was supported by isolating the first and second successive oxidative Heck intermediates as well as by trapping with styrene-d3.

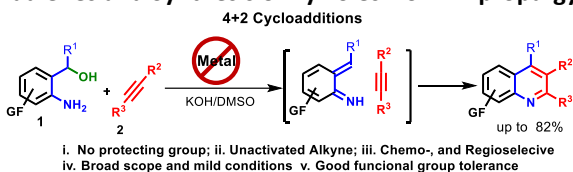
5. Palladium-catalyzed regioselective [3+2]annulation of internal alkynes with iodo-pyranoquinolines with concomitant ring-opening: Efficient approach for the synthesis of pyrroloquinolines and acridones



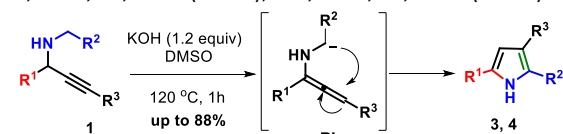
OL, **2012**, 14, 5184 (Cit:37); *JOC*, **2012**, 77, 8562 (Cit: 40); *JOC*, **2013**, 78, 5372 (Cit:18).

This is another interesting and practically useful novel chemistry being developed in our laboratory. A regioselective tandem synthesis of highly functionalized pyrrolo[1,2-*a*]quinolines has been developed through a novel strategy by palladium-catalyzed [3+2] annulation of iodo-pyranoquinolines and internal alkynes with subsequent ring-opening. This chemistry was successfully extended for the synthesis of pharmaceutically important pyrroloacridinones via [3+2]annulations/ring-opening and successive intramolecular cross-aldol condensation.

6. Identification of the New Role of Super-Base: Metal and Protection-Free [4+2] Cycloadditions of Alkynes with azadienes and Synthesis of Pyrroles from *N*-propargylamines



OL, 2016, 18, 2200 (Cit:44); JOC, 2016, 81, 6563 (Cit:41)



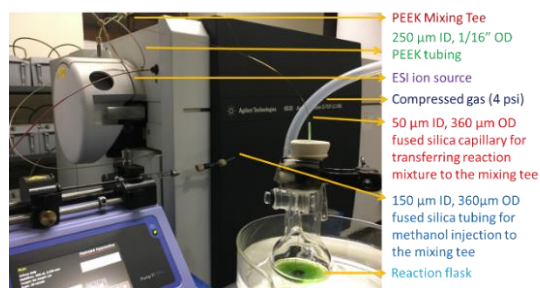
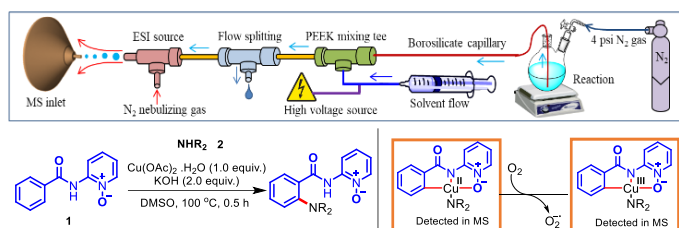
i. transition-metal-free; ii. high atom-economy; iii. broad substrate scope

OL, 2018, 20, 7182 (Cit:13)

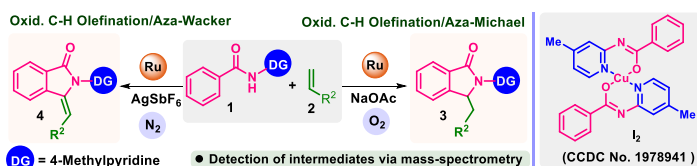
In continuation of base-mediated hydroamination of alkynes, we have identified the new role of DMSO in base-mediated reactions as a source of the proton. A base promoted, protection-free and regioselective synthesis of highly functionalized quinolines via [4+2] cycloaddition of azadienes (generated *in situ* from *o*-amino benzyl alcohol) with internal alkynes has been discovered.

Further, we have extended the base-mediated concept for the synthesis of structurally diversified pyrroles by the intramolecular cyclization of *N*-propargyl amines.

7. Mechanistic investigation of Organic Reactions by capturing fleeting intermediates through online MS

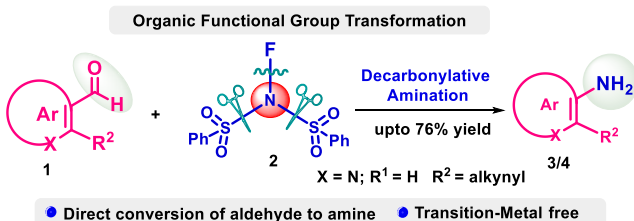


This is a recent initiative of our laboratory for the mechanistic identification of reaction mechanisms by capturing fleeting intermediates using the in-house designed online mass-spectrometry technique. He has successfully applied this technique in Copper and Ruthenium catalyzed C-H activation reactions.



Org. Lett., 2020, 22, 4620 (Cit:05)

8. New Application of NFSI: Triple bond Directed One-Step Transformation of aryl-aldehydes into Amine



Chem. Eur. J. 2019, 25, 16063-16067

Recently we have identified a new application of *N*-fluorobenzenesulfonamide (NFSI) as a nitrogen source. The designed reaction strategy was triggered by trapping of fluorine through the base with the subsequent attack of bis(phenylsulfonyl)- λ^2 -azane on the carbonyl carbon of heterocycle which gradually converted to an amine via Curtius type rearrangement.

Subjects Taught

Over twenty-two years I have been involved in the teaching of the following topics of Organic Chemistry:

- Basic concepts of Organic Chemistry and study of reactive intermediates
- Reaction Mechanism
- Heterocyclic Chemistry
- Newer Synthetic Methods

- Methods in Organic Synthesis (Coupling reactions, Reducing and Oxidizing agents)
- Alkaloids and polyphenols
- Medicinal Chemistry

Research Guidance

1. Supervision of Awarded Doctoral Thesis

- i. Kumar R. **2005**. Copper nanoparticle catalysed C-N bond formation: Michael reaction and amination of aryl halides. University of Delhi.
- ii. Tiwari R. K. **2005**. Synthesis of substituted 1,2,3,4-tetrahydropyrazino[1,2-a]indoles and 1,2,3,4-tetrahydroisoquinolines via intramolecular cyclization using benzotriazole methodology. University of Delhi.
- iii. Chaudhary P. **2006**. Synthesis and Antimicrobial activity of N-alkyl and N-aryl piperazine derivatives using benzotriazole methodology. University of Delhi.
- iv. *Aggarwal A. **2008**. An evaluation of the effect of the extracts of *Asparagus racemosus* on hepato carcinogenesis initiated by Diethylnitrosamine in an animal model. University of Delhi.
- v. Sankar V. K. **2009**. Benzotriazole assisted synthesis of 1,2- and 1,5- annulated polycyclic quinoxalines. University of Delhi.
- vi. Singh J. **2010**. Design of benzotriazole based ligands for Cu/Pd-catalyzed C(aryl)-N, C-(aryl)C and C-S bond formation. University of Delhi.
- vii. Imam M. **2010**. Structural and Immunological Characterization of Merozoite Surface Protein 3 of *Plasmodium falciparum*. University of Delhi.
- viii. Kaushik N. **2010**. Synthesis of 1,2,3,4-Tetrahydropyrazino[1,2-a]indoles and their Biological Evaluation. University of Delhi.
- ix. Chaudhary R. **2011**. 2-(1-Benzotriazolyl)pyridine: A Novel Bidentate Ligand for the Coupling Reactions. University of Delhi
- x. Negi A. **2011**. Role of Metalloprophyrins in Modulating Malaria Induced Haemolytic Anaemia in Mouse Model
- xi. Joshi M. **2012**. Base mediated regio- and stereoselective intermolecular hydroamination of alkynes.
- xii. Aggarwal T. **2012**. Regioselective Synthesis of Polyheterocycles by the Electrophilic Iodocyclization of Alkynes and Metal-Catalyzed Diversification
- xiii. Rustagi V. **2012**. Ag(I)-Catalyzed Regioselective Tandem Synthesis of Fused Heterocycles from ortho-Alkynylaldehydes.
- xiv. Shukla S. P. **2012**: Iodine-Mediated and Metal-Catalyzed Synthesis of Heterocycles via Electrophilic 6-endo-dig Ring Closure of Alkynes.
- xv. Jha R. R. **2013**: Stereoselective Synthesis of Fused Heterocycles by Tandem Reaction of Alkynes
- xvi. Dhanodia A. **2014**: Palladium-Catalyzed Tandem Synthesis of Carbocycles and Heterocycles by sequential coupling reaction
- xvii. Shiva Kotla Reddy **2015**: Synthesis of heterocycles by multi component reaction.
- xviii. Rakesh Kumar Saunthwal **2017**: Novel approaches for the synthesis of N-heterocycles via C-H activation/[4+2] cycloaddition and Michael addition.
- xix. Monika Patel **2017**: Base Assisted Chemo- and Regioselective C-N, C-S and C-O Bond Formation with Isotopic Labeling Studies.
- xx. Sonu Kumar **2017**: Tandem Approaches for the synthesis of Fused N-Heterocycles via 6-endo-dig Ring.
- xxi. Deepak Chaudhary **2017**: Novel Approaches for the Synthesis of Structurally Diversified N/S/O-Heterocyclic Compounds
- xxii. Shilpi Pal **2018**: Transition-metal and lewis acid promoted synthetic approach to multifunctionalization of ortho-arylalkynylaldehydes
- xxiii. Pradeep Beniwal **2018**: Strategies for the Synthesis of N/O-Heterocycles via [3+2] Cycloaddition, Azidation, Staudinger Reaction, and Alkyne Activation
- xxiv. Vineeta Garg **2018**: KOH/DMSO Assisted Chemo-, Regio- and Stereoselective Hydroamination of N-heterocycles/Nucleobases Using Activated and Unactivated Alkynes
- xxv. Pawan K. Mishra **2019**: Development of sustainable methodologies: Efficient synthesis of small bioactive molecules

- xxvi. Pooja Yadav **2020**: Identification polypyrimidine.....Inhibitors
- xxvii. Kapil Mohan Saini **2020**: Novel StrategiesTandem Cyclization.
- xxviii. Shiv Kumar **2021**: Transition-Metal-FreeTerminal Alkynes.
- xxix. Shalini Verma (**Submitted 2021**): Exploiting the Reactivity of AlkynesHeterocyclic Entities.
- xxx. Manoj Kumar (**Submitted 2021**): Metal-Catalyzed C-H FunctionalizationMechanistic Investigation.
- xxxi. Sushmita (**Submitted 2021**): A New AspectConstruction of N-Heterocycles.

*as a co-supervisor

** Signed on behalf of Prof. Ramesh Chandra

2. Supervision of Doctoral Thesis, under progress

- i. Ankit (Year of Registration:2018)
- ii. Ayushee (Year of Registration:2018)
- iii. Priyanka Meena ((Year of Registration:2019)
- iv. Deepika Thakur (Year of Registration:2021)
- v. Shivam (Year of Registration:2021)
- vi. Muskan (Year of Registration:2021)

3. Supervision of Post –Doctoral/Research Associate

- 1. Dr. Trapti Aggarwal (UGC Women Scientist)
- 2. Dr. Navneet Kishore (DS Kothari Fellow)
- 3. Dr. Anuj Kumar ((DS Kothari Fellow)
- 4. Dr. Ravi Kumar (SERB-NPDF)
- 5. Dr. Pawan Mishra (CSIR RA)
- 6. Dr. Poonam Sharma (SERB-NPDF)

4. Supervision of awarded M.Sc. dissertations

- 1. Dutt, D. 2010. Iodine-catalyzed direct synthesis of ester from aldehydes by the oxidative esterification. University of Delhi.
- 2. Nautiyal, A. 2009. Synthesis and antibacterial activity of 4,5-dihydro-pyrrolo-[1,2-*a*]quinoxalines. University of Delhi.
- 3. Omkar, S. 2009. Synthesis and Antibacterial activity evaluation of Polycyclic quinoxalines. University of Delhi
- 4. Nimkar, C. 2009. Synthesis and *invitro* anticancer evaluation of indolo[2,1-*a*]isoquinolines. University of Delhi
- 5. Manzar, M. D. 2007. Synthesis and *in-vitro* antibacterial activity of amino and *N*-alkyl 1,2,3,4-tetrahydropyrazino[1,2-*a*]indoles against resistant bacterial strains. University of Delhi.
- 6. Sonowal, R. 2007. Synthesis and antibacterial activity of 8-pyrrol-1-yl-4,5-dihydro-pyrrolo[1,2-*a*]quinoxalines. University of Delhi.
- 7. Ranjan, A. 2006. Synthesis and antibacterial activity of substituted piperazin-1-carbothioamide and carboxamide. University of Delhi.
- 8. Verma, S. 2004. Synthesis of phenethylamine moiety based psychotomimetics using benzotriazole methadology. University of Delhi.
- 9. Das, T. 2004. Novel ^{99m}Tc labeled 1-(*p*-fluoro); 1-(*p*-chloro) and 1-(*m*- methoxy)-6, 7-dimethoxy-1,2,3,4-tetrahydroisoquinolines as imaging agents in nuclear medicine. University of Delhi.
- 10. Subodh, P. K. 2004. Antibacterial activity of *N*- alkyl and *N*-aryl derivatives of piperazines. University of Delhi.
- 11. Sethi, G.K. 2003. Synthesis of *N*-methyl, *N*-benzyl piperazine analogues by using benzotriazole methodology. University of Delhi.
- 12. Kumar, R. 2000. Synthesis of *p*-hydroxyphenyl glycine. University of Delhi.

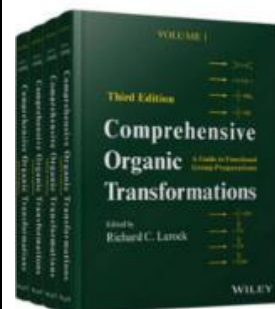
I. Books

1. **Book Name:** *Comprehensive Organic Transformations: A Guide to Functional Group Preparations* (A reference book with four-volume set)
Edited by: Richard C. Larock

Authors: Akhilesh K. Verma, Anton V. Dubrovskiy, Tanay Kesharwani, Nataliya A. Markina, Alexandre A. Pletnev, Cristiano Raminelli, Tuanli Yao Gilson Zeni, Li Zhang and Xiaoxian Zhang

ISBN-139780470927953

Publishers: John Wiley and Sons Ltd, Wiley-Blackwell Publication date 2 Mar 2018, 3rd Edition.

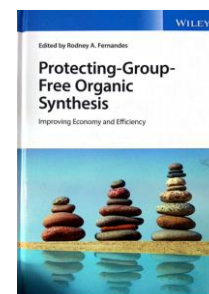


2. **Book Name:** *Protecting-Group-Free Organic Synthesis: Improving Economy and Efficiency*
Name of book Chapter 5: *Protecting-Group-Free Synthesis of Heterocycles*

Authors: Trapti Aggarwal and Akhilesh K. Verma

ISBN-978-1-119-29520-4

Publishers: Wiley Publication

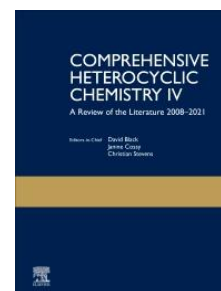


3. **Book Name:** *Comprehensive Heterocyclic Chemistry IV*
Name of book Chapter: *Other Six-membered Rings with Four or Five Nitrogen, Oxygen, or Sulfur* (Book chapter 00914)

Authors: Monika Patel and Akhilesh K. Verma

DOI- <https://doi.org/10.1016/B978-0-12-818655-8.00106-2>

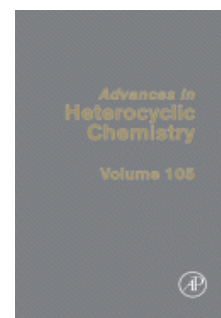
Publishers: Elsevier



4. **Book Name:** *Advances in Heterocyclic Chemistry*
Name of book Chapter: *"Benzotriazole and its derivatives as ligands in coupling reaction"*

Author: Akhilesh K. Verma

DOI-<https://doi.org/10.1016/B978-0-12-396532-5.00003-2> **Publishers:** Elsevier



Patent: Granted

We have discovered a novel, metal-free, and cost-effective method for the deuteration of N, O and S-heterocycles/carbocycles. He has successfully synthesized Toluene- α , α , α -d₃ (NMR solvent), Aspirin-d₄, and Paracetamol-d₅ in gram scale using developed chemistry. We have filed a patent entitled **“NOVEL HIGH YIELDING, ECONOMICAL, ECO-FRIENDLY AND SELECTIVE METHOD FOR THE PREPARATION OF DEUTERATED ALKYL ARENES”** for the selective deuteration of toluene (Toluene- α , α , α -d₃) and arenes.

Patent no: E-101/20744/2017-DEL (Application no: 201711013462)

The salient features of the invention are:

1. Developed basic protocol applicable for the deuteration of toluene-d₃ and its derivatives selectively.
1. Metal, ligand, and additive-free process for isotopic exchange of selective methyl proton.
2. Selectivity towards the methyl hydrogen and aromatic hydrogen.
3. Reduced toxicity
4. More than a 15-fold decline in the cost:

Name of the firm: Santa Cruz Biotechnology Product Name: Toluene- α , α , α -d ₃ Catalog no.: sc-229471 Price: \$440.00 for 5g	Name of the firm: Sigma Aldrich Product Name: Toluene- α , α , α -d ₃ Catalog no. : 487074 ALDRICH Price: \$492.50 for 5g
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i. Publications (Last five years)- in indexed / peer-reviewed**Citation Summary**

Citations	>873	150-200	100-150	75-100	50-75	25-50	15-25	05-15
No of Pub.	01	03	05	06	14	21	15	34

Total Citations: > 4300

h-Index: 36

Last 5 Year Pub: >50

Publication Summary (Selected)

Key Journal	Acc. Chem. Res	Angew. Chem	Org. Lett	Chem. Comm.	J.Org. Chem.	Chem. Eur. J.	OBC	ADSC/ EIOC	TL/ Tetrahedron
Pub. (IF)	01 (20.83)	01 (15.33)	12 (6.09)	07 (6.22)	24 (4.33)	03 (4.80)	12 (3.87)	03/06 5.8/2.9	09/03 (2.27/2.33)

S. No	Complete List of Publications	I.F/ Citation
Year 2021		
1	<i>“Tandem 6π-Azatriene Electrocyclization of Fused Amino-Cyclopentenones: Synthesis of Functionalized Pyrrolo- and Indolo-quinoxalines”</i> Kapil Mohan Saini, Rakesh K. Saunthwal, Ankit Kumar, and Akhilesh K. Verma * <i>Org. Lett.</i> 2021 , 23, 7586–7591	6.09 (00)

2	<i>"Achievements in Fluorination Using Variable Reagents through Deoxyfluorination Reaction"</i> Trapti Aggarwal, Sushmita and Akhilesh K. Verma* <i>Org. Chem. Front.</i> , 2021 , (doi.org/10.1039/D1QO00952D)	5.28 (00)
3	<i>"Radical Promoted Synthesis of Furoquinolines via Anomalous Dakin-Type Reaction"</i> Sushmita, Trapti Aggarwal, Kapil Mohan Saini and Akhilesh K. Verma* <i>Adv. Synth. Catal.</i> 2021 , 363, 4555-4560	5.85 (00)
4	<i>"Base-Catalyzed Selective Deuteration of Alkynes"</i> Shiv Kumar, Monika Patel, and Akhilesh K. Verma* <i>Asian, J. Org. Chem.</i> 2021 , 10, 2365-2369	3.13 (00)
5	<i>"Diacetylene-Based Colorimetric Radiation Sensors for the Detection and Measurement of γ Radiation during Blood Irradiation"</i> Apoorva Mittal, Shalini Verma, Gopishankar Natanasabapathi, Pratik Kumar*, and Akhilesh K. Verma* <i>ACS Omega</i> 2021 , 6, 9482–9491	3.51 (00)
6	<i>"Base-Promoted Synthesis of Polysubstituted 4-Aminoquinolines from Ynones and 2-Aminobenzonitriles under Transition-Metal-Free Conditions"</i> Ankit Kumar, Pawan K. Mishra, Kapil Mohan Saini, and Akhilesh K. Verma* <i>Adv. Synth. Catal.</i> 2021 , 363, 2546-1551	5.85 (00)
7	<i>"Quantification of Narrow-band UVB Radiation doses in Phototherapy using Diacetylene based Film Dosimeters"</i> Apoorva Mittal, Manoj Kumar, N. Gopishankar, Pratik Kumar and Akhilesh K. Verma* , <i>Scientific Reports</i> 2021 , 11, 684	4.0 (00)
8	<i>"Base-Mediated Anti-Markovnikov Hydroamidation of Vinyl Arenes with Arylamides"</i> Ayushee, Monika Patel, Priyanka Meena, Kousar Jahan, Prasad V. Bharatam and Akhilesh K. Verma* <i>Org. Lett.</i> 2021 , 23, 565-570	6.09 (00)
9	<i>"Development and Dosimetric Characterization of Novel Amide Substituted Diacetylene based Radiochromic Films for Medical Radiation Dosimetry"</i> Apoorva Mittal, Gopishankar Natanasabapathi, Akhilesh K. Verma , Pratik Kumar* <i>Radiat. Phy. Chem.</i> 2021 , 182, 109391	2.79 (00)
Year 2020		
10	<i>"Ru(II)-Catalyzed Oxidative Olefination of Benzamides: Switchable Aza-Michael and Aza-Wacker Reaction for Synthesis of Isoindolinones"</i> Manoj Kumar, Shalini Verma and Akhilesh K. Verma* <i>Org. Lett.</i> 2020 , 22, 4620–4626	6.09 (05)
11	<i>"Well-Defined Palladium N-Heterocyclic Carbene Complexes: Direct C–H Bond Arylation of Heteroarenes"</i> Anuj Kumar, Manoj Kumar, and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2020 , 85, 13983-13996	4.33 (01)
12	<i>"2-Alkynylarylnitrile: An Emerging Precursor for the Generation of Carbo- and Heterocycles"</i> Pawan K. Mishra, Satyaki Chatterjee, and Akhilesh K. Verma* <i>ACS Omega</i> 2020 , 5, 32133–32139 (Invited Article)	3.51 (00)
13	<i>"Exploring the behavior of the NFSI reagent as a nitrogen source"</i> Sushmita, Trapti Aggarwal, Sonu Kumar and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2020 , 18, 7056-7073	3.87 (00)
14	<i>"Synthesis of Cyclopentaquinolinone and Cyclopentapyridinone from ortho-alkynyl-N-arylaldehyde via Superbase-promoted C–N, C–O, and C–C Bonds Formation"</i> Kapil Mohan Saini, Rakesh K. Saunthwal, Sushmita and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2020 , 18, 5594-5601	3.87 (00)

15	<i>"Development and Characterization of Urethane Substituted Diacetylene based Radiochromic films for Medical Radiation Dosimetry"</i> Apoorva Mittal, N. Gopishankar, Julia Koleda, Akhilesh K. Verma, Pratik Kumara* <i>Radiat. Phy. Chem.</i> 2020 , 177, 109119	2.79 (00)
16	<i>"BF3-Etherate-Catalyzed Tandem Reaction of 2-Formylarylketones with Electron-rich Arenes/Heteroarenes: An Assembly of Isobenzofurans"</i> Pawan K. Mishra, Ankit Kumar and Akhilesh K. Verma* <i>Chem. Commun.</i> , 2020 , 56 , 6122-6125	6.22 (01)
17	<i>"Olefin-Oriented Selective Synthesis of Linear and Branched N-Alkylated Heterocycles via Hydroamination"</i> Sushmita, Trapti Aggarwal, Kapil Mohan Saini and Akhilesh K. Verma* <i>Eu. J. Org. Chem.</i> 2020 , 3312–3316	2.89 (00)
18	<i>"Aza-Henry Reaction: Synthesis of Nitronaphthylamines from 2-(Alkynyl) benzonitriles"</i> Shalini Verma, Manoj Kumar and Akhilesh K. Verma* <i>Org. Lett.</i> 2020 , 22, 130-134	6.09 (06)
19	<i>"Transition-Metal-Free Reverse Reactivity of (2-alkynyl)-Arylaldimines: Assembly of Functionalized Amino-Indinones"</i> Kapil M. Saini, Rakesh K. Saunthwal, Sushmita, and Akhilesh K. Verma* <i>Chem. Eur. J.</i> 2020 , 26, 1017-1021	4.85 (01)
Year 2019		
20	<i>"Triple bond Directed Csp²-N Bond Formation through N-Fluorobenzenesulfonimide as Aminating Source: One-Step Transformation of Aldehyde into Amine"</i> Sushmita, Trapti Aggarwal, Norio Shibata, and Akhilesh K. Verma* <i>Chem. Eur. J.</i> 2019 , 25, 16063-16067	4.85 (03)
21	<i>"Rh(III)-Catalyzed Alkynylation: Synthesis of Functionalized Quinolines from Aminohydrazones"</i> Pradeep Kumar, Vineeta Garg, Manoj Kumar, and Akhilesh K. Verma* <i>Chem. Commun.</i> , 2019 , 55 , 12168-12171	6.22 (07)
22	<i>"Recent Advances in the Synthesis of Carbazoles from Indoles"</i> Trapti Aggarwal, Sushmita, and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2019 , 17 , 8330-8342	3.87 (11)
23	<i>"Dual Function of Cabon Tetrachloride: Synthesis of Chlorinated Heterocycles"</i> Shiv Kumar, Rakesh K. Saunthwal, Kapil M. Saini and Akhilesh K. Verma* <i>Chem. Commun.</i> , 2019 , 55, 10721-10724	6.22 (02)
24	<i>"Mechanistic Insights of Cu(II)-Mediated ortho-C-H Amination of Arenes by Capturing Fleeting Intermediates and Theoretical Calculations"</i> Manoj Kumar, Shalini Verma, Anubhav Kumar, Pawan K. Mishra, Raghunath Ozhapakkam Ramabhadran, Shibdas Banerjee and Akhilesh K. Verma* <i>Chem. Commun.</i> , 2019 , 55, 9359-9362	6.22 (02)
25	<i>"Human Disorders Associated with Inflammation and the Evolving Role of Natural Products to Overcome"</i> Navneet Kishore, Pradeep Kumara, Karuna Shanker, and Akhilesh K. Verma* <i>Eur. J. Med. Chem.</i> 2019 , 179, 272-309	6.51 (12)
26	<i>"Harnessing the Reactivity of ortho-Formyl-arylketones: Base-Promoted Regiospecific Synthesis of Functionalized Isoquinolines"</i> Pawan K. Mishra, Shalini Verma, Manoj Kumar, Ankit Kumar, and Akhilesh K. Verma* <i>Chem. Commun.</i> , 2019 , 55, 8278-8281	6.22 (07)
27	<i>"Metal-Free Carbonyl-Assisted Regioselective Hydration of Alkynes: An Access to Dicarboxyls"</i> Shalini Verma, Manoj Kumar, Pawan K. Mishra and Akhilesh K. Verma*	6.09 (06)

	<i>Org. Lett.</i> 2019 , 21, 35059-5063		
28	"Azidation vs [3+2]-cycloaddition: Chemoselective reaction of sodium azide towards o-alkynylaldehydes for the synthesis of N-heterocycles" Pradeep Kumar, Vineeta Garg, and Akhilesh K. Verma* <i>Tetrahedron Letters</i> 2019 , 60, 1854–1859	2.37 (02)	
29	"Cu(II)–Mediated ortho–C–H Amination of Arenes with Free Amines" Manoj Kumar Shalini Verma, Pawan K. Mishra, and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2019 , 84, 8067-8079	4.33 (08)	
30	"On Water: Metal-free Synthesis of Highly Functionalized Benzothiazolylidene from ortho-Haloanilines" Kapil M. Saini, Rakesh K. Saunthwal, Shiv Kumar, and Akhilesh K. Verma* <i>J. Org. Chem.</i> , 2019 , 84, 2689–26987	4.33 (06)	
31	"On Water: Iodine-Mediated Direct Construction of 1, 3- Benzothiazines from ortho-Alkynylanilines by Regioselective 6- Exo-dig Cyclization" Kapil M. Saini, Rakesh K. Saunthwal, Shiv Kumar and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2019 , 17, 2657-2662 (Hot Article collection)	3.87 (04)	
	Year 2018		
32	"Base–Mediated Direct Transformation of N–Propargylamines into 2,3,5–Trisubstituted 1H-Pyrroles" Pawan K. Mishra, Shalini Verma, Manoj Kumar, and Akhilesh K. Verma* <i>Org. Lett.</i> 2018 , 20, 7182–7185	6.09 (13)	
33	"Substrate-Controlled Regio- and Stereoselective Synthesis of (Z)- and (E)-N-Styrylated Carbazoles, Aza-carbazoles, and γ -Carbolines via Hydroamination of Alkynes". Vineeta Garg, Pradeep Kumar, and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2018 , 83, 11686–11702.	4.33 (06)	
34	"Base- Mediated Deuteration of Small Organic Molecules: A Mechanistic Insight" Monika Patel, Rakesh K. Saunthwal and Akhilesh Kumar Verma* <i>ACS Omega.</i> 2018 , 3, 10612-10623. (Invited article)	3.51 (10)	
35	"Transition-Metal-Free Access to Pyridocarbazoles from 2-Alkynylindole-3-carbaldehydes via Azomethine Ylide" Verma, Shalini; Mishra, Pawan; Kumar, Manoj; Sur, Souvik; Verma, Akhilesh K. Verma* <i>J. Org. Chem.</i> , 2018 , 83, 6650–6663	4.33 (07)	
36	"Copper-Catalyzed Stereo- and Chemoselective Synthesis of Enaminones Via Michael Type Addition" Patel, Sushmita and Akhilesh K. Verma* <i>J. Chem. Sci.</i> 2018 , 130 (70), 91 DOI: 10.1007/s12039-018-1465-9 (Invited article)	1.23 (03)	
37	"Base-Promoted Stereoselective Hydroalkoxylation of Alkynes" Monika Patel, Sushmita, and Akhilesh K. Verma* <i>Ind. J. Het. Chem.</i> 2018 , 28, 107 (Invited article)	~1.00	
38	"Regio- and Stereoselective Synthesis of Isoindolin-1-ones through BuLi-Mediated Iodoaminocyclization of 2-(1-Alkynyl)benzamides" Dharendra Brahmchari Akhilesh K. Verma , and Saurabh Mehta <i>J. Org. Chem.</i> , 2018 , 83, 3339–3347	4.33 (23)	
	Year 2017		
39	"Pd-Catalyzed One-Pot Sequential Cross-Coupling Reactions of Tetrabromo-thiophene" Kapil M. Saini, Rakesh K. Saunthwal and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2017 , 15, 10289-10298	3.87 (05)	
40	"Chemoselective Oxidative Esterification and Iodocyclization of Hydroxyalkynyl Aldehydes" Shiv	3.13	

	Kumar, Monika Patel, Rakesh K. Saunthwal and Akhilesh K. Verma* , <i>Asian J. Org. Chem.</i> 2017 , 6, 1893–1902	(04)	
41	"Chemo-, Regio- and Stereoselective N-alkenylation of Pyrazoles/Benzopyrazoles using Activated and Unactivated Alkynes" Vineeta Garg, Pradeep Kumar, and Akhilesh K. Verma* , <i>J. Org. Chem.</i> , 2017 , 82, 10247–10262	4.33 (09)	
42	"Ag(I)-Catalyzed Cycloisomerization Reactions: Synthesis of Substituted Phenanthrenes and Naphthothiophenes" Rakesh K. Saunthwal, Abhinandan K. Danodia, Kapil M. Saini and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2017 , 15, 6934-6942	3.87 (09)	
43	"Trifluoroacetic acid Mediated One-Pot Synthesis of Furo-Fused Quinoxalines/ Pyrazines" Kapil M. Saini, Sonu Kumar, Monika Patel, Rakesh K. Saunthwal and Akhilesh K. Verma* <i>Eur. J. Org. Chem.</i> 2017 , 3707–3715	2.83 (03)	
44	"Chemoselective Azidation of o-Alkynylaldehydes over [3+2] Cycloaddition and Subsequent Staudinger Reaction: An Easy Access to Benzonaphthyridines/ Napthyridines". Pradeep Kumar, Trapti Aggarwal and Akhilesh K. Verma* <i>J. Org. Chem</i> , 2017 , 82, 6388–6397	4.33 (10)	
45	"Regioselective 6-endo-dig Iodocyclization: An accessible approach for Iodo-benzo[a]phenazines" Sonu Kumar, Mohammad Mujahid and Akhilesh K. Verma* <i>Org. Biomol. Chem.</i> , 2017 , 15, 4686-4696	3.87 (15)	
46	"Regioselective Preferential C-H Activation of Sterically Hindered 1,3-Dienes over [4+2] cycloaddition" Rakesh K. Saunthwal, Kapil M. Saini, Monika Patel and Akhilesh K. Verma* <i>Tetrahedron</i> , 2017 , 73, 2415–2431	2.64 (18)	
47	"Base-Mediated Hydroamination of Alkynes" Monika Patel, Rakesh K. Saunthwal and Akhilesh K. Verma* <i>Acc. Chem. Res.</i> 2017 , 50, 240–254 <i>Note: (First ever paper published from Delhi University as corresponding author)</i>	20.8 (101)	
	Year 2016		
48	"Palladium-Catalyzed Intramolecular Fujiwara-Hydroarylation: Synthesis of Benzo[a]phenazines Derivatives" Sonu Kumar, Rakesh K. Saunthwal, M. Mujahid, Trapti Aggarwal and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2016 , 81,9912–9923	4.33 (22)	
49	"Regioselective 5-endo-dig Electrophilic Iodocyclization of Enediynes: A Convenient Route to Iodo-substituted Indenes and Cyclopenta Fused Arenes" R. K. Saunthwal, Abhinandan K. Danodia, Monika Patel, S. Kumar and Akhilesh K.Verma* <i>Chem. Asian J.</i> 2016 , 11, 3001–3007	4.05 (13)	
50	"Regio- and Stereoselective Tandem Synthesis of Oxazolo fused Pyridoindoles and Benzofurooxazolo Pyridines from ortho-Alkynylaldehydes" Shilpi Pal, Deepak Choudhary, Mohit Jainth, Sonu Kumar, Rakesh K. Tiwari, and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2016 , 81, 9356–9371	4.33 (10)	
51	"Metal-Free Regioselective Tandem Synthesis of Diversely Substituted Benzimidazo-Fused Polyheterocycles in Aqueous Medium" Pawan K. Mishra and Akhilesh. K. Verma* <i>Green Chem.</i> , 2016 ,18, 6367-6372	9.4 (12)	
52	"Palladium Meets Copper: One-Pot Tandem Synthesis of Pyrdo Fused Heterocycles via Sonogashira Conjoined Electrophilic Cyclization" Sonu Kumar, Rakesh K. Saunthwal, Trapti Aggarwal, Siva K. Reddy and Akhilesh K. Verma*	3.87 (19)	

	<i>Org. Biomol. Chem.</i> , 2016 , 14, 9063-9071 Highlighted in "When Palladium Meets Copper, SYNFACTS 01, 2016, 12(12), 1255"	
53	"Regioselective Synthesis of C-3 Functionalized Quinolines via Hetero Diels-Alder Cycloaddition of Azadienes with Terminal Alkynes" Rakesh K. Saunthwal, Monika Patel and Akhilesh K. Verma* <i>J. Org. Chem.</i> 2016 , 81, 6563-6572	4.33 (41)
54	"Iodine-Mediated Synthesis of Heterocycles via Electrophilic Cyclization of Alkynes" Akhilesh K. Verma,* Trapti Aggarwal and Sonu Kumar <i>Org. Biomol. Chem.</i> , 2016 , 14, 7639-7653	3.87 (83)
55	"Pd-Catalyzed One-Pot Sequential Unsymmetrical Cross-Coupling Reactions of Aryl / Heteroaryl 1,2-Dihalides" Abhinandan K. Danodia, Rakesh K. Saunthwal, Monika Patel, Rakesh K. Tiwari and Akhilesh K. Verma* <i>Organic & Biomolecular Chemistry</i> , 2016 , 14, 6487-6496	3.87 (19)
56	A General and Efficient Pd-Catalyzed Rapid 2-Fluoroethoxylation of Bromo-Chalcones T. M. Rangarajan* Kavita Devi, Akhilesh K. Verma; Rishi Pal Singh and Raj Pal Singh, <i>J. Fluorine Chem.</i> 2016 , 186, 101-110	2.33 (07)
57	"Metal and Protection-Free [4+2] Cycloadditions of Alkynes with azadienes: An Efficient Assembly of Functionalized Quinolines" Akhilesh K. Verma* Rakesh K. Saunthwal and Monika Patel <i>Org. Lett.</i> 2016 , 18,2200–2203 Highlighted in Organic Process Research & Development 2016 , 20, 1691	6.09 (44)
58	"Metal-free Intermolecular Hydrophenoxylation of Aryl Alkynes" Monika Patel, Rakesh K. Saunthwal, Devendra K. Dhaked, Prasad V. Bharatam and Akhilesh K. Verma* <i>Asian J. Org. Chem.</i> 2016 , 5, 213-221	3.13 (09)

Conference Organization/ Presentations (in the last three years)

1. Organization of Conferences

- Convener of XV J-NOST 2019" held during October 18th-21st, 2019 at Department of Chemistry, University of Delhi.
- Co-Convener "6th World Congress on Nanomedical Sciences (ISNSCON-2018), Chemistry Biology Interface Synergistic in New Frontiers (CBISNF-2019) and Science and Technology for the future of Mankind (STFM)" conference, being held during 7th -9th January, 2019 at Vigyan Bhawan, New Delhi.
- Convener International Conference on Emerging Trends in Drugs Development and Natural-Products being organized at Department of Chemistry, University of Delhi (12th–14th January, 2018).
- Scientific In-Charge in 53rd Annual Convention of the chemist 2016 being organized by Indian Chemical Society at GITAM University, Visakhapatnam (27th–29th December, 2016).
- Co-Convener (CBISNF 2004) International Conference on Chemistry Biology Interface: Synergistic New Frontiers 21-26 November 2004
- Convener III Annual Frontiers of Biomedical Research 2004
- Member of organizing committee of all the conferences/Seminars/Symposia organized by ACBR, Delhi University

2. Participation as Paper/Poster Presentation/Invited Lectures

Invited Lectures (abroad)

- I. Verma A. K. **2016** *"Pd(II)-Catalyzed Regioselective Synthesis of Functionalized Carbazoles from Indoles/Styrylindoles via Triple/Double C-H Functionalization"* FLOHET-16, Feb. 28-2nd March 2016, University of Florida, Gainesville Florida, USA Gainesville, Florida, USA [Invited Talk]
- II. Verma A. K. **2016** *"Hydroamination and Electrophilic Cyclization: Modern Tool for the Synthesis of Heterocycles, Natural Products-like and π -Conjugated Scaffolds from Alkynes"* 2nd March, 2016, Department of Chemistry, Queens College, New York, USA. [Invited Talk]
- III. Verma A. K. **2015** *"Indole Directed C-H Activation: Direct Synthesis of Functionalized Carbazoles from Indoles via Triple C-H Activation"* 23-28 August 2015, University of California, Santa Barbara, CA, USA [Invited Talk]
- IV. Verma A. K. **2016** *"Heterocycles via C-H Activation and Electrophilic Cyclization"* 4th March 2016, Department of Chemistry, IPN, Mexico City, Mexico. [Invited Talk]
- V. Verma A. K. **2016** *"Regioselective Synthesis of Functionalized Carbazoles from Indoles via Triple/Double C-H Functionalization"* 3rd March 2016, Department of Chemistry, CINVESTAV, Mexico City, Mexico. [Invited Talk]
- VI. Verma A. K. **2015** *"Hydroamination of Alkynes and Triple Successive Oxidative Heck: A Modern Tool for the Construction of Small Nitrogen Heterocycles"* 7-11 May 2015, 22nd Grasmere Heterocyclic Symposium, Grasmere, UK (Nominated by **NOST, India**) [Invited Talk]
- VII. Verma A. K. **2014** *"Electrophilic Cyclization: A Modern Tool for the Synthesis of Heterocyclic, Natural Products-like and π -Conjugated Scaffolds from Alkynes"* 10th March 2014 at Department of Chemistry, CINVESTAV, IPN. Mexico City, Mexico. [Invited Talk]
- VIII. Verma A. K. **2014** *"Electrophilic Cyclization / Alkyne Annulation: Modern Tool for the Synthesis of Heterocyclic, Natural Products-like and π -Conjugated Scaffolds from Alkynes"* 6th March 2014 at Department of Experimental and Clinical Pharmacology, University of Minnesota, Minneapolis, MN, USA [Invited Talk]
- IX. Verma A. K. **2016** *"Electrophilic Cyclization / [3+2] Alkyne Annulation: A Modern Tool for the Tandem Synthesis of Heterocyclic Molecules of Pharmaceutical Interest"* FLOHET-14, 2-5th March 2014, University of Florida, Gainesville Florida, USA
- X. Verma A. K. **2013. CINVESTAV, Mexico City, Mexico:** *"Electrophilic Cyclization: A Modern Tool for the Synthesis of Heterocyclic, Natural Products-like and π -Conjugated Scaffolds from Alkynes"* 10th March 2014 at Department of Chemistry, CINVESTAV, IPN. Mexico City, Mexico. [Invited Talk]
- XI. Verma A. K. **2013. University of Minnesota, Minneapolis, USA:** *"Electrophilic Cyclization / Alkyne Annulation: Modern Tool for the Synthesis of Heterocyclic, Natural Products-like and π -Conjugated Scaffolds from Alkynes"* 6th March 2014 at Department of Experimental and Clinical Pharmacology, University of Minnesota, Minneapolis, MN, USA [Invited Talk]
- XII. Verma A. K. **2013. Gainesville, Florida, USA:** *"Electrophilic Cyclization / [3+2] Alkyne Annulation: A Modern Tool for the Tandem Synthesis of Heterocyclic Molecules of Pharmaceutical Interest"* FLOHET-14, 2-5th March 2014, University of Florida, Gainesville Florida, USA [Invited Talk]
- XIII. Verma A. K. **2013.** *"Alkyne Annulation/ Electrophilic Cyclization: A Modern Tool for the Construction of Small Heterocycles and Natural Products-like Scaffolds"* 19th to 23rd August 2013 organized by Asian Chemical Congress at Singapore. 15th Asian Chemical Congress. [Invited Talk].
- XIV. Verma A. K. **2012.** *"Electrophilic Cyclization of Alkynes: A Modern Tool for the Synthesis of Small Heterocyclic Molecules of Pharmaceutical Interest"* 2nd March 2012, Department of Organic and

- Bioorganic Chemistry, George August University, **Goettingen, Germany**. [Invited Talk].
- XV. Verma A. K. **2012**. "New Strategies for the Synthesis of Fused Heterocycles, Natural Products-like and π -Conjugated Scaffolds by the Electrophilic Cyclization of Alkynes" FLOHET-13, 4-7th March 2012, **Gainesville Florida, USA**. [Invited Talk].
- XVI. Verma A. K. **2012**. "*Metal-Catalyzed Electrophilic Cyclization of Alkynes: A Versatile Tool for the Synthesis of Small Heterocycles, Natural-Product Like and π -Conjugated Scaffolds*" 8th March 2012, Department of Chemistry and Biomedical Sciences, **University of Rhode Island, Kingston, USA**. [Invited Talk].
- XVII. Verma A. K. **2012**. "*Electrophilic Cyclization of Alkynes: A Modern Tool for the Synthesis of Small Heterocyclic Molecules of Pharmaceutical Interest*" Frontiers in Pharmaceutical Sciences: Global Perspectives, September 28 - September 30, 2012, Organized by the College of Pharmacy, University of Rhode Island, **Kingston, USA**. [Invited Talk].
- XVIII. Verma A. K. **2011**. "Synthesis of Nitrogen and Oxygen Heterocycles by the Regioselective Electrophilic Cyclization of Alkynes" 31st July to 4th August 2011 organized by **ICHC at Glasgow, UK**. "23rd International Congress on Heterocyclic Chemistry" [Invited Talk].

Lectures/Symposia/Conferences in India

1. Verma A. K. **2018**. "*Base-Mediated and Protection Free [4+2] Cycloadditions of Alkynes with Azadienes: An Efficient Assembly of Functionalized Quinolines*" **CONIAPS-XXII, 13-15th April 2018** organized by the Dr. Ram Manohar Lohia Avadh University, Faizabad, UP
1. Verma A. K. **2018**. "*Adventure with Alkynes*" Modern Tool for the Construction of Small Heterocyclic Molecules, Natural Products-like and π -Conjugated Scaffolds from Alkynes" **Dr. Reddys. Laboratory, 28/24/2018, Hyderabad,**
2. Verma A. K. **2017**. "*Adventure with Alkynes: Modern Tool for the Construction of Small Heterocyclic Molecules Natural Products-Like and π -Conjugated Scaffolds from Alkynes*" **Indo-Hungarian Symposium, 11/12/2017** organized by Miranda House, University of Delhi,
3. Verma A. K. **2016**. "*Palladium-Catalyzed Regioselective Synthesis of Functionalized Carbazoles from Indoles via Triple and Double C-H Functionalization*" Akhilesh Kumar Verma, NDCS 2016, BITS, Pilani, 16-18 October 2015, Organized by Department of Chemistry, BITS, Pilani, Rajasthan.
4. Verma A. K. **2016**. "*Regiocontrolled Electrophilic Cyclization: A Novel Approach for the Synthesis of Pyrrolo[3,2-c]quinolines (Core Nucleus of Natural Product Martinellie Acid)*" **Akhilesh Kumar Verma 20-22nd Nov. 2014. 4th Biennial International Conference on DDNPTM** organized by NIPER Mohali. [Invited Talk].
5. Verma A. K. **2013**. "*Palladium-Catalyzed Direct Synthesis of Functionalized Carbazoles from Indoles via Triple Successive Oxidative Heck (Fujiwara-Moritani)*" **Akhilesh Kumar Verma 9-12th Nov 2014, Indo-French Conference on Organic Synthesis, Puducherry, India.** [Invited Talk].
6. Verma A. K. **2013**. "*Regio- and Stereoselective Preferential Hydroamination, Hydrothiophen-oxylation and Hydrophenoxylation of Haloarylalkynes over N, S- and O-Arylation of Aryl Halides: A Mechanistic Insight*" **Akhilesh Kumar Verma, 9-11 October 2014, Transcending Frontiers in Organic Chemistry (TFOC 2014),** Organised by NIIST, Trivandrum, India. [Invited Talk].
7. Verma A. K. **2013**. "*Electrophilic Cyclization/ Alkyne Annulation : Modern Tool for the Construction of Small Heterocycles, Natural Products-like and π -Conjugated Scaffolds from Alkynes*" **27th August 2013, "A Symposium on Diversity Oriented Heterocyclic Synthesis"** Organized by the Syngenta Biosciences, Goa.

[Invited Talk]

8. Verma A. K. **2013**. “*O*-Haloaryl Alkynes/*O*-Alkynylaldehydes: Versatile Synthones for the Construction of Small Heterocycles and Natural Products-like Scaffolds” January 21st -23rd, **2013**. Emerging Trends in Development of Drugs and Devices jointly organized by the Department of Chemistry, University of Delhi and three National Science Academies of India.
9. Verma A. K. **2012**. “Hydroamination and Electrophilic Cyclization of Alkynes: A Versatile Tool for the Regioselective Synthesis of Fused Heterocyclic Scaffolds” 2-4th August **2012**, “Chemistry and Chemical Biology of Natural Products” organized by the Indian Institute of Chemical Technology (IICT), Hyderabad. [Invited Talk].
10. Verma A. K. **2012**. “Electrophilic Cyclization of Alkynes: A Modern Tool for the Synthesis of Heterocyclic Molecules, Natural Products-like and π -Conjugated Scaffolds” 20th March **2012**, National Seminar on “Emerging Trends in Chemical Sciences” organized by School of Chemical Sciences, Devi Ahilya University, Indore [Invited Talk].
11. Verma A. K. **2011**. “Metal-Catalyzed Electrophilic Cyclization of Alkynes: A Versatile Tool for the Synthesis of Heterocycles” 23rd to 24th December **2011** National Symposium in Chemistry in 21st Century, organized by the Department of Chemistry, Guru Nanak Dev University, Amritsar. [Invited Talk].
12. Verma A. K. **2011**. “Synthetic Approaches Towards Small Heterocyclic Molecules, Natural Products-like and π -Conjugated Compounds by the Electrophilic Cyclization of Alkynes” 14th to 15th October **2011**, SMNP 2011, Organized by Department of Chemistry, Annamalai University, Tamilnadu [Invited Talk].
13. Verma A. K. **2011**. “Novel Synthetic Approaches Towards Heterocyclic Molecules, Natural Products-like and π -Conjugated Scaffolds by the Electrophilic Cyclization of Alkynes” 7-9 December 2011. 7th Indo-French Conference in Organic Synthesis Organized by National Chemical Laboratory (CSIR), Pune [Invited Talk].
14. Verma A. K. **2011**. “Synthetic approaches towards small heterocyclic molecules, natural products-like and π -conjugated compounds by electrophilic cyclization of alkynes” 22nd to 25th September **2011**. CRSI North zone meeting, Organized by CRSI at Jammu, UK. [Invited Talk].
15. Verma A. K. **2011**. “Synthesis of biologically important fused heterocycles by annulations and electrophilic cyclization of alkynes” 3-5th March **2011** organized by CDRI – NIPER (RBL) at CDRI LUCKNOW [Invited Talk].
16. Verma A. K. **2011**. “Copper-Catalyzed Regioselective Tandem Synthesis of Fused-Heterocycles by the Preferential Addition of N-Heterocycles on *ortho*-haloalkynes followed by Intramolecular C-2 Arylation” RASC 10-12th February. 2011, Dibrugarh, India. [Invited Talk].
17. Verma A. K. **2011**. Tandem Synthesis of Indolo, Pyrrolo[2,1-*a*]isoquinolines, Naphthyridines, Pyranoquinolines, Pyranoquinolinones and Isocumarins by the Electrophilic Cyclization of Alkynes” 4-7 February. 2011 organized by ISCB, Rajkot, India. [Invited Talk].
18. Verma A. K. **2010**. “Regioselective Tandem Synthesis of Indolo and Pyrrolo[2,1-*a*]isoquinolines: A Direct Approach to Alkaloids, Cryptaustoline and Cryptowpline Nucleus” DDNPTM conference 20-24th Nov. 2010 organized by NIPER Mohali. [Invited Talk].
19. Verma A. K. **2010**. Regioselective Tandem Synthesis of Indolo and Pyrrolo[2,1-*a*]isoquinolines: A Direct Approach to Alkaloids, Cryptaustoline and Cryptowpline Nucleus 05-08th December 2010 organized by

National Organic Symposium Trust (NOST) at Goa. [Invited Talk]

20. Verma A. K. **2010**. Metal-catalyzed regioselective tandem synthesis of indolo, pyrrolo[2,1-a]isoquinolines and naphthyridines. 23rd June 2010 in the Department of Chemistry, Vikram University Ujjain, M.P. [Invited Talk]
21. Verma A. K. **2010**. Copper-Catalyzed Regioselective Tandem Synthesis of Indolo and Pyrrolo[2,1-a]isoquinolines: A Direct Approach to Dibenzopyrrocoline Alkaloids, Cryptaustoline and Cryptowpline 12-13 May 2010 "National seminar on current trends in Chemistry", Organized by the Department of Chemistry, APS University Rewa, M.P. [Invited Talk]
22. Verma A. K. **2010**. Copper-Catalyzed Regioselective Tandem Synthesis of Indolo and Pyrrolo[2,1-a]isoquinolines and Identification of Synthesize Regioisomers by X-Ray Crystallographic Analysis. 12-14 April 2010 "Recent Advances in Analytical Sciences, , organized by the Department of Chemistry, University of Himanchal Pradesh, Shimla (India). [Invited Talk]
23. Verma A. K. **2010**. "Copper-Catalyzed Regioselective Tandem Synthesis of Indolo and Pyrrolo[2,1-a]isoquinolines: A Direct Approach to Dibenzopyrrocoline Alkaloids, Cryptaustoline and Cryptowpline" 17-21st Feb. "CTDDR-2010, Organized by the Central Drug Research Institute, (CDRI) Lucknow (India) [Invited Talk].
24. Verma A. K. **2010**. Regioselective Tandem Synthesis of Fused Polyheterocycles: A Direct Approach To Dibenzopyrrocoline Alkaloids" 5-8th January 2010. International conference "T3D-2010, Organized by the Department of Chemistry, University of Delhi, Delhi, India. [Invited Talk]
25. Verma A. K. and Chaudhary R. **2009**. Regioselective Tandem Synthesis of Polyheterocycles by the Copper-Catalyzed Preferential addition of *N*-Heterocycles on *ortho*-haloalkynes followed by Intramolecular Arylation. Presented poster at 11th CRSI National Symposium in Chemistry and 3rd CRSI-RSC Symposium. 6-8th Feb. 2009 at National Chemical Laboratory, Pune
26. Verma A. K.; Chaudhary R.; Singh J.; Larock R. C.; **2009**. Regioselective tandem synthesis of polyheterocycles by the copper-catalyzed preferential addition of n-heterocycles on *ortho*-haloalkynes followed by intramolecular arylation" Presented Poster at International Conference "TENTH TETRAHEDRON SYMPOSIUM, 23rd to 26th June 2009 at Paris, France.
27. Verma A. K.; Keshewani T.; J. Singh.; V. Tandon.; Larock R.C. **2008**. Synthesis of polycyclic heteroaromatics by copper-catalyzed tandem amination and intramolecular electrophilic cyclization. Paper presented in International Conference "236th ACS National Meeting, 17-21st August, Philadelphia, PA, USA. [Oral talk]
28. Keshewani T.; Verma A. K.; Emrich D.; Larock R. C. **2008**; Studies in aryl to acyl migration "through space" palladium migration. Presented Poster in International Conference "236th ACS National Meeting, 17-21st August 2008, Philadelphia, PA, USA)
29. Verma A. K. **2007** Participated in International Conference "42nd ACS Midwest Regional Meeting, 7-10 Nov. 2007, 5100, Rockhills Road, Kansas City, MO)
30. Verma A. K. **2007** Attri P.; Chopra V.; Kaushik N. K.; Singh R. P.; Chandra R. Green synthesis: TEAA catalyzed synthesis of 1,2,3,4-tetrahydropyrazino[1,2-a]indoles. Presented Poster in 3rd Indo-Italian Workshop on Chemistry and Biology of Antioxidants, organized by CSIR, Embassy of Italy and Dept. of Chemistry, Univ. of Delhi.)

Research Projects (Major Grants/Research Collaboration)

- **Title of the Project:** “*Design of Novel Approaches for the Synthesis of Highly Functionalized N-Heterocycles: An Application in Total Synthesis of Isoquinoline Alkaloids*”. Funding agency: SERB; Amount: 39.0 Lakhs; Duration: Three year (2019-2022).
- **Title of the Project:** “*Diversity Oriented C-H functionalization of Arenes/Heteroarenes*”. Funding agency: SERB; Amount: 38.0 Lakhs; Duration: Three year (2019-2022).
- **Title of the Project:** “*Synergetic C-H functionalization of Arene/Heteroarene via Sequential Transition-metal and Photoredox Catalysis*.” Funding agency: DST-DAAD; Amount: 15.8 Lakhs; Duration: Two year (2019-2021).
- **Title of the Project:** “*Design of Novel Fluorinating Reagent: Application in the Synthesis of Fluoro Organic Molecules*”. Funding agency: DRDO; Amount: 39.3 Lakhs; Duration: Three year (2019-2022).
- **UGC Mid-Carrer Award 2018** Funding agency: UGC; Amount: 10 Lakhs; Duration: Two year (2018-2020).
- **Title of the Project:** “*Metal and Protection-free Hydroamination of Nucleobases and N-heterocycles*”. Funding agency: CSIR; Amount: 25.0 Lakhs; Duration: Three year (2017-2019).
- **Title of the Project:** “Design of novel approaches for the synthesis of symmetrically/unsymmetrically substituted Arenes/hetero Arenes and synthesis of heterocyclic/carbocyclic compounds by sequential coupling reaction”Funding agency: SERB, DST; Amount: 55.0 Lakhs; Duration: Three year (2015-2018)
- **Title of the Project:** “Transition-Metal-Catalyzed Double C-H Activation: Synthesis of Novel Heterocyclic Scaffolds from Unactivated Arenes”Funding agency: SERB, DST; Amount: 44.4 Lakhs Duration: Three year (2014-2017)
- **Title of the Project:** “Synthesis of Diversely Substituted Indoles by The Electrophilic Cyclization and Cu/Pd-catalyzed Coupling Reactions: Potential Anticancer Small Molecules” Funding agency: DST, Amount: **29.8 Lakhs** , Duration: Three year (2012-2014)
- **Title of the Project:** Design of Novel Diversity Oriented Synthetic Strategy (DOS) for the Regioselective Tandem Synthesis of Fused N-, O- and S-heterocycles (natural products like and π - conjugated) by the Electrophilic Cyclization of Alkynes” Funding agency: DST, Amount: **44.3 Lakhs** , Duration: Three year (2010-12)
- **Title of the project:** Studies on Regioselective Tandem Synthesis of Fused-Isoquinolines and Naphthyridines by the Copper-Catalyzed Preferential Addition of N-Heterocycles on Ortho-haloarylalkynes followed by Arylation Funding agency: CSIR, Amount: **20.3 Lakhs** , Duration: Three year (2011-2013)
- **Title of the Project:** “Design and Synthesis of New class of DNA intercalating agents”, Funding agency: Delhi University (PURSE Grant) , Amount: **29.0 Lakhs** , Duration: Three year (2009-2010)
- **Title of the Project:** “Design Synthesis and antibacterial studies of novel 1,2,3,4-tetrahydropyrazino[1,2-a]indoles on resistant bacterial strains”, Funding agency: DST, Amount: **~20.0 Lakhs**, Duration: Two year (2009-10)
- **Title of the Project:** “Design of Tandem and selective synthesis of α -fused polycyclic quinoxalines”, Funding agency: UGC, Amount: **8.84 Lakhs**, Duration: Three year (2009-2010)

- **Title of the Project:** “An Efficient Assembly of Heterobenzazepines and tetrahydropyrazinoindoles ring system by intramolecular cyclization by benzotriazole methodology”, Funding agency: DST, Amount: **12 Lakhs**, Duration: Three year (2003-2006)
- **Title of the Project:** “Green & Environment Friendly approach for the construction of potential heterocycles”, Funding agency: DRDO, Amount: **14.4 Lakhs**, Duration: Two year (2006-2008)

Awards and Distinctions

Honors / awards

- 2021: Elected Fellow, Indian National Science Academy (INSA)
- 2021: Bronze Medal, Chemical Research Society of India (CRSI)
- 2021: Fellow Royal Society of Chemistry (FRSC)
- 2021: Senior Fellow, Institution of Eminence (IoE); University of Delhi
- 2021: Expert Core Committee Member, SERB-Organic PAC (2021-2023)
- 2020: Expert Member, SERB-TETRA (Chemical Sciences)
- **2021:** SERB Member Teachers Associateship for Research Excellence (**TARE**) Committee
- 2020: Expert Member, SERB-POWER (Chemical Sciences)
- 2020: Expert Member, SERB-STAR (Chemical Sciences)
- 2020: Expert Member, PMRF (Chemical Sciences)
- 2019: Member Governing Body, CCRUM, Ministry of AYUSH
- 2020: “Dr. APJ Abdul Kalam National Dedication Award 2020” in the field of Science and Technology
- UGC Mid-career Award, **2018**
- Member of Expert Committee of Chem. Sciences, SERB. (2015-2018)
- Eli Lilly and Company Asia **Outstanding Thesis Award** to Ph.D Student Trapti Aggarwal (First Prize of 1500 USD)
Note: First student from **Delhi University**
- Professor A. S. R. Anjaneyulu 60th Birthday Commemoration Award for the year 2012 by Indian Chemical Society.
- Awarded **BOYSCAST Fellowship** for one year (2007-2008) in the laboratory of **Prof. R. C. Larock** at Iowa State University of Science and Technology, Ames, Iowa, USA for the advance research.
- Awarded Post Doctoral Fellowship by the Dept. of Chemistry, University of Florida, Gainesville, USA, for one year (Jan 2001-Dec. 2001) in the Laboratory of **Prof. Alan R. Katritzky**.
- Awarded Post Doctoral Research Associate fellowship by the Dept. of Chemistry, University of Florida, Gainesville, USA, for one year (Jan 2001-Dec. 2001) in the Laboratory of **Prof. Alan R. Katritzky**.
- Member Indian Delegation Team for Indo-Mexican Joint Cooperation in Science and Technology Committee **2011**
- Member Indian Delegation Team for India-Cuba Joint Cooperation in Science and Technology Committee **2011**
- Invited by National Organic Symposium Trust (**NOST**) for a talk in NOST XIV Organic Chemistry Conference (Will be held in Goa between December 5-8, 2010)
- Invited by Editor of **Wiley-Blackwell** for the Co-author ship for editing the 3rd Revision of Comprehensive Organic Transformation (COT-III)
- Invited for writing a book Chapter in the *Advances in Heterocyclic Chemistry*
- Fellowships / Distinctions**
- **1996-1998:** CSIR-JRF (Chemical Sciences)
- **1996:** ARS Scientist Selection (ASRB, ICAR)
- **1996:** ARS NET Organic Chemistry
- **Reviewing following Journals**
 - *Chemical Reviews* (ACS)

- *Acc. Chem. Res.*
- *Chem. Commun.*
- *Adv. Syn. Catalysis*
- *Org. Lett.*
- *Tetrahedron Letters.*
- *J. Org. Chem. (ACS)*
- *SYNN LETT*
- *Chemistry: An Asian Journal*
- *Org. Bioorganic Chemistry*
- *Synthetic Communication*
- *Bioorganic & Medicinal Chemistry*
- *European Journal of Medicinal Chemistry*
- *Archive Pharma*
- *Heterocycles*

Association With Professional Bodies

Membership

- Member: Royal Society of Chemistry (RSC)
- Life Member-Chemical Research Society of India (CRSI)
- Member- **American Chemical Society**, USA
- Member- **Indian Chemical Society**, India
- Life Member- **Indian Society of Analytical Scientists**

Committees/ Board Members

Member of various selection committee/Governing body/Bill Committee/Purchase Committee/Construction committee of ACBR during 1998-2009

Major Accomplishment

- We have discovered a novel, metal-free, and cost-effective method for the deuteration of N, O and S-heterocycles/carbocycles. He has successfully synthesized Toluene- α , α , α -d₃ (NMR solvent), Aspirin-d₄ and Paracetamol-d₅ in gram scale using developed chemistry. We have filed a patent entitled ***“NOVEL HIGH YIELDING, ECONOMICAL, ECO-FRIENDLY AND SELECTIVE METHOD FOR THE PREPARATION OF DEUTERATED ALKYL ARENES”*** for the selective deuteration of toluene (Toluene- α , α , α -d₃) and arenes. **Patent no:** E-101/20744/2017-DEL (Application no: 201711013462)
- We have developed a novel strategy for the tandem synthesis of indolo- and pyrrolo[2,1-*a*]isoquinolines (core nucleus of natural product, **Cryptaustoline**, and **Cryptowoline**) from *o*-haloarylalkynes by the ***preferential addition of indoles and pyrroles onto the o-haloarylalkynes over N-arylation of the aryl halide***. We have successfully extended the scope of the developed chemistry for the direct synthesis of **Naphthyridines** and bisindolo[2,1-*a*]isoquinolines, a regioisomer of bisindolo[2,1-*a*]quinolines used as a single-crystal field-effect transistor.
- We have introduced another interesting novel chemistry for the synthesis of pharmaceutically important, highly functionalized pyrrolo[1,2-*a*]quinolines by the palladium-catalyzed [3+2] annulation of iodo-pyranoquinolines and internal alkynes with subsequent ring-opening. This chemistry was successfully extended for the synthesis of pyrrolo-acridinone via [3+2] annulations/ring opening and successive intramolecular cross-aldol condensation.
- We have developed a novel cascade strategy for the ***“Diversity Oriented Synthesis (DOS) of Over Hundred Heterocyclic /Natural-Product-Likes and π -Conjugated Scaffolds”*** from *ortho*-akynyaldehydes. The mechanism of the designed reaction is established by the spectroscopic and X-Ray crystallographic studies of the isolated

intermediates and the final product.

- Iodine-Catalyzed and Solvent Controlled **Selective Electrophilic Cyclization and Oxidative Esterification of ortho-alkynyl Aldehydes**: An Easy Access to Pyranoquinolines, Pyranoquinolinones and Isocumarins. This is another interesting and practically useful novel chemistry being developed in our laboratory. This developed process provides a novel access for the chemoselective synthesis of esters from aldehydes without oxidizing/affecting the primary alcoholic and alkyne group present in the substrates. Process is a useful addition in the organic functional group transformations where protection and deprotection is required.
- **Novel property of benzotriazole and its derivatives**: We had identified the new role of inexpensive and thermally stable compound **benzotriazole** as an inexpensive and efficient ligand in Copper-Catalyzed C-N (N-arylation), C-S (S-arylation) coupling reaction. In continuation of designing of benzotriazole based ligands for the coupling reactions, we have designed **BtPy (L4)** as a robust (air stable, phosphine free) ligand which efficiently catalyzed the Suzuki, Heck, Oxidative-Heck, Sonogashira, Buchwald-Hartwig (C–N), and C–S coupling reactions.

Selected Publications

S.No.	Publication Details	Imp. Factor
1	<i>Org. Lett.</i> 2021 , 23, 565-570	6.09
2	<i>Adv. Synth. Catal.</i> 2021 , https://doi.org/10.1002/adsc.202100023	5.85
3	<i>Org. Lett.</i> 2020 , 22, 4620–4626	6.09
4	<i>Chem. Commun.</i> , 2020 , 56, 6122-6125	6.22
5	<i>Org. Lett.</i> , 2020 , 22, 130-134	6.09
6	<i>Chem. Eur. j.</i> 2019 (DOI: org/10.1002/chem.201904294)	5.20
7	<i>Chem. Eur. j.</i> 2019 (DOI: org/10.1002/chem.201903495)	5.20
8	<i>Chem. Commun.</i> 2019 , 55, 12168-12171	6.22
9	<i>Chem. Commun.</i> 2019 , 55, 10721-10724	6.22
10	<i>Chem. Commun.</i> 2019 , 55, 9359-9362	6.22
11	<i>Chem. Commun.</i> 2019 , 55, 8278-8281	6.22
12	<i>Org. Lett.</i> , 2019 , 21, 5059-5063	6.09
13	<i>J. Org. Chem.</i> , 2019 , 84, 128067-8079	4.34
14	<i>J. Org. Chem.</i> , 2019 , 84, 2689–26987	4.34
15	<i>Org. Lett.</i> , 2018 , 20, 7182–7185	6.09
16	<i>J. Org. Chem.</i> 2018 , 83, 11686–11702	4.34
17	<i>J. Org. Chem.</i> 2018 , 83, 6650–6663	4.34
18	<i>J. Org. Chem.</i> 2018 , 83, 3339–3347	4.34
19	<i>Acc. Chem. Res.</i> 2017 , 50 (2), pp 240–254	22.0
20	<i>J. Org. Chem.</i> 2017 , 82, 10247–10262	4.34
21	<i>J. Org. Chem.</i> 2017 , 82, 6388–6397	4.34
22	<i>J. Org. Chem.</i> 2016 , 81, 9912–9923	4.34
23	<i>J. Org. Chem.</i> 2016 , 81, 9356–9371	4.34
24	<i>Green Chem.</i> , 2016 , 18, 6367-6372	9.40
25	<i>Chem. Asian J.</i> 2016 , 11, 3001–3007	4.20
26	<i>J. Org. Chem.</i> 2016 , 81, 6563-6572	4.34
27	<i>Org. Lett.</i> 2016 , 18, 2200–2203	6.09
28	<i>Chem. Eur. J.</i> 2015 , 21, 18601–18605	5.20
29	<i>J. Org. Chem.</i> 2015 , 80, 10548–10560	4.34
30	<i>Org. Lett.</i> 2015 , 17, 3658-3661 (Most read article)	6.09
31	<i>Green Chemistry</i> 2015 , 17, 1434-1441	9.40
32	<i>Chem. Commun.</i> 2014 , 50, 8526-8528	6.22

33	<i>J. Org. Chem.</i> 2014 , 78, 6657–6669	4.34
34	<i>J. Org. Chem.</i> 2013 , 78, 6657–6669	4.34
35	<i>J. Org. Chem.</i> 2013 , 78, 5372–5384	4.34
36	<i>J. Org. Chem.</i> 2013 , 78, 4386–4401	4.34
37	<i>Adv. Syn. Cat.</i> 2013 , 355, 421–438	5.45
38	<i>J. Org. Chem.</i> 2012 , 77 10382–10392	4.34
39	<i>Org. Lett.</i> 2012 , 14, 5184–5187.	6.09
40	<i>J. Org. Chem.</i> 2012 , 77, 8562–8573	4.34
41	<i>J. Org. Chem.</i> 2012 , 77, 8191–8205	4.34
42	<i>J. Org. Chem.</i> 2012 , 77, 5633–5645	4.34
43	<i>Org. Lett.</i> 2012 , 14, 1106–1109.	6.09
44	<i>Org. Lett.</i> 2011 , 13, 1630–1633	6.09
45	<i>J. Org. Chem.</i> 2011 , 76, 5670–5684	4.34
46	<i>Green Chem.</i> 2011 , 13, 1640–1643	9.40
47	<i>Chem. Commun.</i> 2010 , 46, 4064–4066	6.22
48	<i>J. Org. Chem.</i> 2010 , 75, 7691–7703	4.34
49	<i>Angew. Chem. Int. Ed.</i> 2009 , 48, 1138–1143 (First, ever paper published from Delhi University as the corresponding author)	12.25
	Ten Most Cited Research Papers	Citations
1	<i>Angew. Chem Int. Ed.</i> 2009 , 48, 1138–1143	198
2	<i>Tetrahedron Letters</i> , 2007 , 48, 7199–7202	150
3	<i>Tetrahedron Letters</i> , 2007 , 48, 4207–4210	117
4	<i>Acc. Chem. Res.</i> 2017 , 50, 240–254	105
5	<i>Chem. Commun.</i> 2010 , 46, 4064–4066	102
6	<i>J. Org. Chem.</i> 2010 , 75, 7691–7703	92
7	<i>Org. Lett.</i> 2011 , 17, 3658–3661	81
8	<i>Org. Lett.</i> 2011 , 13, 1630–1633	77
9	<i>J. Org. Chem.</i> 2018 , 76, 5670–5684	76
10	<i>J. Org. Chem.</i> 2013 , 78, 6657–6669	71

No. of Ph.D. Guided : Thirty (30) one as a co-supervisor

Total Publications : > 132

Last 5 Year public : > 50

Average I. F. : > 4.5

Total Citation: : > 4300

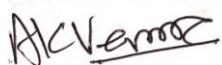

h index: : 36

Achievements of Students

- **Kapil Mohan Saini:** Received “**NOST Best Thesis Award 2020**” at XVI J-NOST 2020, being organized at IISc
- **Rakesh K. Saunthwal:** Has been awarded the prestigious Marie Curie fellowship 2019.
- **Pawan K. Mishra:** Received “**NOST Best Thesis Award 2019**” at XV J-NOST 2019, being organized in Univ. of Delhi
- **Monika Patel:** Has been awarded the prestigious Shashtri Postdoctoral Fellowship 2019.
- **Monika Patel:** Received “**NOST Best Thesis Award 2018**” at XIV J-NOST 2018, being organized in CSIR-IICT,

Hyderabad

- **Rakesh K. Saunthwal:** Has been awarded JNOST Best thesis Award 2017.
- **Monika Patel:** Has been awarded prestigious **67th Lindau Nobel laureate meeting**, Germany- 2017
- **Pawan K. Mishra:** *Best Poster award*-2017-J-NOST, CDRI Lucknow
- **Kapil Mohan Saini:** Has been selected Best Poster award in NIPER, Mohali-2016.
- **Kapil Mohan Saini:** Young Scientist Award, Best Poster Award by Indian Chemical society-2016.
- **Vineeta Garg:** Has been selected Best Poster Award on 4th Biennial International Conference of New Developments in Drug Discovery from Natural Products and Traditional Medicine-2014
- **Deepak Kumar:** Has been selected Young Scientist Award (Dr. J. M. Dasgupta Award), CONACYT Fellowship by Mexican government, Best Poster award in "International Symposium on Drug Development for Orphan/Neglected Diseases" Organized by CDRI, Lucknow,
- **Sonu Kumar:** Has been selected Best Poster Award (by Indian Chemical society)
- **Monika Patel:** Has been awarded Best Poster Presentation in conference 19th CRSI-2016 2) Dr. B. N. Mankad Award (by Indian Chemical society) 3) Best Poster Presentation in conference TFOC-2014
- **Rakesh K. Saunthwal:** Has been awarded "Young Scientist Award (Dr. B. N. Mankad Award by Indian Chemical society)"-2015.
- **Trapti Aggarwal:** Has been selected for the world **Nobel Laureates Meet at Lindau, Germany 2013 (First Student from the Department of Chemistry, Univ. of Delhi)**.
- **Megha Joshi:** Has been awarded a prestigious "Erasmus Mundus" fellowship for advanced research in Germany.
- **Satya Prakash Shukla:** Has been Selected for the prestigious EXPERTS III scholarship for postdoctoral research at KU Leuven, Belgium.
- **Vineeta Rustagi:** Has been Selected for the prestigious EXPERTS III scholarship for postdoctoral research at Belgium.
- **Megha Joshi:** Invited for the oral presentation for the ICHC 2011 at **Glasgow, UK.**
- Following Students have been selected for the Prestigious "Junior National Organic Symposium Trust" Lectures:
 - **Trapti Aggarwal:** 2010-J-NOST, Hyderabad
 - **Satya Prakash Shukla:** 2011-J-NOST, IISER Mohali, Chandigarh.
 - **Megha Joshi:** 2012-J-NOST, IIT, Guwahati


 Prof. Akhilesh K. Verma
Department of Chemistry
University of Delhi
Delhi-110007

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.