

DR. MANOJ KUMAR GUPTA

Assistant Professor
 Department of Chemistry
 School of Chemical Sciences
 Central University of Haryana
 Mahendergarh-123 031
 Haryana, India

CONTACT INFO

New Academic block-1, first floor
 Central University of Haryana, Mahendergarh
 Email: mkgupta@cuh.ac.in
 Contact No.: +91 9728739075

ACADEMIC AND PROFESSIONAL BACKGROUND

Assistant Professor (February 2016-Present)	Department of Chemistry, Central University of Haryana, Mahendergarh, Haryana
Fast Track Young Scientist (PI) of SERB funded project (April 2014-February 2016)	Centre of Biomedical Research (CBMR), Lucknow, Uttar Pradesh
FP7 Marie Curie (International Incoming Fellowship) Postdoctoral Researcher (September 2011-September 2013)	University College Cork, Ireland (Research Supervisor- Dr. Tim O'Sullivan)
Postdoctoral Researcher (November 2009-April 2011)	University of Alabama, Tuscaloosa, AL, USA and University of Tennessee Medical Centre (UTMC), Knoxville, TN, USA. (Research Supervisors- Prof. Timothy S. Snowden and Prof. G. W. Kabalka)
Research Associate (2008-2009)	Sai Advantium Pharma Ltd., Hyderabad, India,
Ph.D.* (2003-2008)	CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad, India, (Research Adviser – Dr. J. S. Yadav)

**The conferred degree awarded from Vidyasagar University, Midnapore, W.B. on April 2, 2009*

PROFESSIONAL RECOGNITIONS, AWARDS AND FELLOWSHIPS

<u>Year</u>	<u>Awards and Fellowships</u>	<u>Awarding agency</u>
2012	Ireland's Champions of EU Research	Seventh EU Framework Programme Ireland
2010	EU Marie-Curie International Incoming Fellowship	Marie-Curie Actions (European Union)
2009	Asia Outstanding Thesis Award (First Prize)	Eli-Lilly & Company, USA
2007	Selected for Director's Special Appreciation Award for SRF	CSIR-IICT Hyderabad, India
2005	Selected for Best SRF Award	CSIR-IICT Hyderabad, India
2004	Selected for Best JRF Award	CSIR-IICT Hyderabad, India
2005-2008	CSIR- Senior Research Fellowship (SRF)	CSIR New Delhi, India
2003-2005	CSIR-Junior Research Fellowship (JRF)	CSIR New Delhi, India
2002	Uttar Pradesh State Level Eligibility Test	UGC, India
2002	CSIR-JRF (June 2002) and CSIR-NET (Dec 2002)	CSIR-UGC, New Delhi

COURSES TAUGHT

- Reaction Mechanism: Structure and Reactivity
- Aliphatic Nucleophilic and Electrophilic Substitution Reactions
- Aromatic Electrophilic and Nucleophilic Substitution Reactions
- Elimination Reactions
- Addition to Carbon-Carbon and Carbon-Hetero Multiple Bonds
- Heterocycles and Natural Products
- Applications of Spectroscopy (UV-Visible Spectroscopy, IR Spectroscopy and Mass spectrometry)
- Medicinal & Pharmaceutical Chemistry (Antibiotics and Cardiovascular Drugs and Local Anti-infective Drugs and Psychoactive Drugs)
- Basics of Medicinal Chemistry (Drug Design and Synthesis, Drugs and Society)
- Practical Organic Chemistry (Chemistry Laboratory)

RESEARCH INTERESTS

- Development of new methods in organic syntheses and its application towards the total synthesis of bio-active natural products.
- Medicinal chemistry and chemical biology.

RESEARCH GROUP**(i) Ph.D. Students**

Mr. Anil Kumar, M.Sc., (CSIR-SRF)

Joined in July 2016

Ms. Eqvinshi, M.Sc., (CSIR-JRF)

Joined in July 2017

(ii) M.Sc. Dissertation Students***As Supervisor***

Mr. Deepak Kumar (January-May 2019)

Ms. Sonam (January-May 2019)

Ms. Monika (January-May 2019)

Mr. Lalit (January-May 2019)

Ms. Meenakshi Sarwan (January-May 2018)

Ms. Lalita Kumari (January-May 2018)

Mr. Yogendra Singh (January-May 2018)

Mr. Vipin (January-May 2017)

Ms. Anuradha (January-May 2017)

Ms. Poonam (January-May 2017)

Mr. Vikas Yadav (January-May 2016)

Mr. Anil Kumar (January-May 2016)

Ms. Pooja Yadav (January-May 2016)

Mr. Vipin Arora (January-May 2016)

As Co-supervisor

Mr. Suraj Singh (January-May 2019)

Ms. Ritu Bharadwaj (January-May 2018)

Ms. Damini Singh (January-May 2018)

Mr. Shashikant Tiwari (January-May 2018)

Ms. Aekta (January-May 2018)

Ms. Bhawna Swami (January-May 2018)

Ms. Manisha (January-May 2018)

Mr. Mandeep Malik (January-May 2017)

(iii) Students supervised during Postdoc

Supervised 2x final year undergraduate Pharmacy students in Department of Chemistry & School of Pharmacy, ABCRF Cavanagh Pharmacy Building, University College Cork, Ireland in 2012 & 2013

FUNDED PROJECT (EXTERNAL)

1. UGC-FRPS Start-up Research Grant funded by University Grants Commission, New Delhi, Amount ₹ 10,00,000/- (2017- For three years)
2. Fast Track Young Scientist Startup Research Grant funded by Science & Engineering Research Board (SERB), New Delhi, Amount ₹ 29,87,333/- (2014-2016)

LIST OF PUBLISHED PAPERS & REVIEWS IN PEER REVIEWED JOURNALS

Total number of publications	:	43
<i>h</i> -index	:	17
<i>i</i> 10 index	:	25
<i>(Source – Google Scholar)</i>		

Journal wise break up

Journal	Impact Factor	Number
<i>Nature Communications</i>	12.353	1
<i>Organic Letters</i>	6.429	1
<i>Chemical Communications</i>	6.290	2
<i>J. Organic Chemistry</i>	4.805	2
<i>J. Mol. Catalysis A: Chemical</i>	3.958	3
<i>Catalysis Communications</i>	3.463	2
<i>RSC Adv.</i>	2.936	2
<i>Eur. J. Org. Chem.</i>	2.882	1
<i>Synthesis</i>	2.722	8
<i>Synlett</i>	2.369	3
<i>Tetrahedron Letters</i>	2.125	10
<i>Curr. Org. Chem</i>	2.193	2
<i>Monatsh. Chem.</i>	1.285	4
<i>Int. J. Phar. Sci. Res.</i>	0.59	1

COMPLETE LIST OF PUBLICATIONS

43. An Sq, Murtagh J, Twomey KB, **Gupta MK**, O'Sullivan TP, Ingram R, Valvano MA and Tang JI "Modulation of antibiotic sensitivity and biofilm formation in *Pseudomonas aeruginosa* by interspecies diffusible signal factor analogues" *Nature Communications*, **2019** (Accepted).
Impact factor – 12.353
42. Kumar VP, **Gupta MK**, Horgan C and O'Sullivan TP, "Synthesis of the quorum sensing molecule Diffusible Signal Factor using the alkyne zipper reaction" *Tetrahedron Lett.* **2018**, 59, 2193-2195.
Impact factor – 2.125
41. Khatana AK, Singh V, **Gupta MK** and Tiwari B, "A Highly Efficient NHC-Catalyzed Aerobic Oxidation of Aldehydes to Carboxylic Acids Synthesis" *Synthesis*, **2018**, 50, 4290-4294.
Impact factor – 2.722
40. An Sq, Murtagh J, Twomey KB, **Gupta MK**, O'Sullivan TP, Ingram R, Valvano MA and Tang JI, "Modulation of antibiotic sensitivity and biofilm formation in *Pseudomonas aeruginosa* by interspecies diffusible signal factor analogues" *bioRxiv*, **2018**, 291260.

39. O'Reilly K, **Gupta MK**, Gandhi H, Kumar PV and O'Sullivan TP "Asymmetric peroxidation of α,β -unsaturated aldehydes under diarylprolinol ether catalysis" *Curr. Org. Chem.* **2017**, *21*, 2013-2016.
Impact factor – 2.193
38. Gandhi H, O'Reilly K, **Gupta, MK**, Horgan C, O'Leary EM and O'Sullivan TP "Advances in the synthesis of acyclic peroxides" *RSC Adv.* **2017**, *7*, 19506–19556.
Impact factor – 2.936
37. O'Reilly K, **Gupta MK**, Gandhi H, Kumar VP, Eccles KS, Lawrence SE and O'Sullivan TP "Cinchona-catalysed, enantioselective synthesis of β -peroxycarboxylic acids, β -peroxyesters and β -peroxyalcohols" *Curr. Org. Chem.* **2016**, *20*, 2633-2638.
Impact factor – 2.193
36. Li Z, **Gupta MK** and Snowden TS "One-carbon homologation of primary alcohols and the reductive homologation of aldehydes involving a Jocic-type reaction" *Eur. J. Org. Chem.* **2015**, 7009–7019.
Impact factor – 2.882
35. **Gupta MK**, Li Z and Snowden TS "Preparation of one-carbon homologated amides from aldehydes or primary alcohols" *Org. Lett.* **2014**, *16*, 1602-1605.
Impact factor - 6.429
34. Yadav JS, Yadav NN, **Gupta MK**, Srivastava N and Reddy BVS "GaCl₃-catalyzed activation of alkynyl glycosides for the synthesis of O-glycosides" *Monatsh Chem.* **2014**, *145*, 517–520.
Impact factor - 1.285
33. **Gupta MK** and O'Sullivan TP "Recent applications of gallium and gallium halides as reagents in organic synthesis" *RSC Adv.* **2013**, *3*, 25498–25522.
Impact factor – 2.936
32. Yadav JS, Reddy PKM, **Gupta MK** and Reddy BVS "A short and facile stereoselective total synthesis of cryptocarya diacetate" *Monatsh Chem.* **2013**, *144*, 1583–1587.
Impact factor - 1.285
31. **Gupta MK**, Li Z and Snowden TS "One-pot synthesis of trichloromethyl carbinols from primary alcohols" *J. Org. Chem.* **2012**, *77*, 4854-4860.
Impact factor - 4.805
30. Yadav JS and **Gupta MK** "Self-assembled lipid nanotubes, nanosheets and nanopipes" *Int. J. Phar. Sci Res.* **2012**, *3*, 4822-4826.
Impact factor – 0.59
29. Yadav JS, **Gupta MK**, Jain R, Yadav NN and Reddy BVS "A practical synthesis of bis(indolyl)methanes employing boric acid" *Monatsh Chem.* **2010**, *141*, 1001-1004.
Impact factor – 1.285

28. Yadav JS, Reddy, BVS, Yadav NN and **Gupta MK** “Three-component coupling of isoquinoline, activated alkyne and nitromethane: a facile synthesis of nitromethyl derivatives of 1,2-dihydroisoquinolines” *Synthesis* **2009**, 1131-1136.
Impact factor – 2.722
27. Yadav JS, Reddy BVS, Yadav NN, **Gupta MK** and Sridhar B “Gold(III) chloride catalyzed three-component reaction: A facile synthesis of alkynyl derivatives of 1,2-dihydroquinolines and isoquinolines” *J. Org. Chem.* **2008**, 73, 6857-6859.
Impact factor – 4.805
26. Yadav JS, Reddy BVS, Sengupta S, **Gupta MK**, Baishya G, Harshavardhana SJ and Dash U “Iodine as mild, efficient and cost-effective catalyst for the synthesis of thiiranes from oxiranes” *Monatsh Chem.* **2008**, 139, 1363-1367.
Impact factor – 1.285
25. Yadav JS, Reddy BVS, Yadav NN and **Gupta MK** “Three-component coupling reactions of isoquinoline, dimethyl acetylenedicarboxylate and indoles: facile synthesis of 3-indolyl-1,2-dihydro-2-isoquinolinyl-2-butenedioate” *Tetrahedron Lett.* **2008**, 49, 2815-2819.
Impact factor – 2.125
24. Yadav JS, Reddy BVS, Pandurangam T, Reddy YJ and **Gupta MK** “PMA/SiO₂ catalyzed amidation of alcohols with nitriles: A simple, cost-effective and recyclable catalytic system for Ritter reaction” *Cat. Commun.* **2008**, 9, 1297-1301.
Impact factor – 3.463
23. Yadav JS, **Gupta MK**, Prathap I, Bhadra MP, Mohan K and Jagannadh B “Synthesis and cellular uptake of cell delivering 2,6-pyridinediylbiskanamide submicron-sheets in HeLa cells” *Chem. Commun.* **2007**, 3832-3834.
Impact factor – 6.290
22. Yadav JS, Reddy PMK, **Gupta MK** and Chary CJ “Stereoselective total synthesis of tarchonanthuslactone & formal synthesis of (-)-colleto” *Synthesis* **2007**, 3639-3646.
Impact factor – 2.722
21. Yadav JS, **Gupta MK** and Prathap I “Facile stereoselective synthesis of the C12-C24 fragment of macrolactin-A” *Synthesis* **2007**, 1343-1348.
Impact factor – 2.722
20. Yadav JS, Reddy BVS, **Gupta MK**, Dash U, Bhunia DC and Hossain SS “Mild and efficient coupling of diazo compounds with aza-aromatic systems under solvent-free conditions” *Synlett* **2007**, 2801-2804
Impact factor – 2.369
19. Yadav JS, Reddy BVS, Rao TS, Narender R and **Gupta MK**, “PMA/SiO₂ as efficient, cost-effective and recyclable catalytic system for the synthesis of highly substituted pyrroles” *J. Mol. Catal. A: Chemical* **2007**, 278, 42-46.
Impact factor – 3.958

18. Yadav JS, Reddy BVS, **Gupta MK**, Prathap I and Pandey SK “Amberlyst A-21[®]: an efficient, cost-effective and recyclable catalyst for the synthesis of substituted 4*H*-chromenes” *Cat. Commun.* **2007**, 8, 2207-2210.
Impact factor – 3.463
17. Yadav JS, Reddy BVS, **Gupta MK**, Prathap I and Dash U “Facile addition of ketones to activated isoquinolines using *N*-methyl-2-pyrrolidinone” *Synthesis* **2007**, 1077-1081.
Impact factor – 2.722
16. Yadav JS, Reddy BVS, **Gupta MK**, Dash U and Pandey SK “Gallium(III) chloride catalyzed stereoselective synthesis of *E*-configured α,β -unsaturated ketones” *Synlett* **2007**, 809-811.
Impact factor – 2.369
15. Yadav JS, Reddy BVS, **Gupta MK** and Pandey SK “Gallium(III) iodide-promoted stereoselective aldol coupling of α,β -acetylenic ketones” *J. Mol. Catal. A: Chemical* **2007**, 264, 309-312.
Impact factor – 3.958
14. Yadav JS, Reddy BVS, Reddy PMK, Dash U and **Gupta MK** “Indium(III) bromide catalyzed cleavage of cyclic and acyclic ethers: an efficient and practical ring opening reaction” *J. Mol. Catal. A: Chemical* **2007**, 271, 266-269
Impact factor – 3.958
13. Yadav JS, Reddy BVS, Reddy PMK and **Gupta MK** “Zn/[bmim]PF₆-mediated Markovnikov allylation of unactivated terminal alkynes” *Tetrahedron Lett.* **2005**, 46, 8411-8413.
Impact factor – 2.125
12. Yadav JS, Reddy BVS, Reddy PMK and **Gupta MK** “Mild and efficient method for the cleavage of cyclic and acyclic ethers by iodine under solvent-free conditions” *Tetrahedron Lett.* **2005**, 46, 8493-8495.
Impact factor – 2.125
11. Yadav JS, Reddy BVS, **Gupta MK** and Eeshwaraiah B “CeCl₃·7H₂O/NaI-promoted stereoselective Aldol coupling of α,β -acetylenic ketones” *Synthesis* **2005**, 57-60.
Impact factor – 2.722
10. Yadav JS, Reddy BVS, Baishya G, Harshavardhan SJ, Chary CJ and **Gupta MK** “Green approach for the conversion of olefins into *vic*-halohydrins using *N*-halosuccinimides in ionic liquids” *Tetrahedron Lett.* **2005**, 46, 3569-3572.
Impact factor – 2.125
9. Yadav JS, Reddy BVS, Eeshwaraiah B, **Gupta MK** and Biswas SK “Gallium(III) halide promoted synthesis of 1,3,5-triaryl-1,5-dihalo-1,4-pentadienes” *Tetrahedron Lett.* **2005**, 46, 1161-1163.
Impact factor – 2.125
8. Yadav JS, **Gupta MK**, Pandey SK, Reddy BVS and Sarma AVS “Nucleophilic displacement by azide and cyanide on Baylis-Hillman acetates in water” *Tetrahedron Lett.* **2005**, 46, 2761-2763.
Impact factor – 2.125

7. **Gupta MK** "Copper(II) trifluoromethanesulfonate" *Synlett*, **2005**, 1044-1045
Impact factor – 2.369
6. Ansari IA, Joyasawal S, **Gupta MK**, Yadav JS and Gree R "Wacker oxidation of terminal olefins in a mixture of [bmim][BF₄] and water" *Tetrahedron Lett.* **2005**, 46, 7507-7510.
Impact factor – 2.125
5. Yadav JS, Reddy BVS, **Gupta MK** and Biswas SK "Rapid and efficient protocol for the synthesis of 4-halotetrahydropyrans using niobium(V) chloride and gallium(III) halides" *Synthesis* **2004**, 2711-2715.
Impact factor – 2.722
4. Yadav JS, Reddy BVS, Eeshwaraiah B and **Gupta MK** "Bi(OTf)₃/[bmim]BF₄ as novel and reusable catalytic system for the synthesis of furan, pyrrole and thiophene derivatives" *Tetrahedron Lett.* **2004**, 45, 5873-5876.
Impact factor – 2.125
3. Yadav JS, Reddy BVS and **Gupta MK** "Ferric(III) chloride promoted efficient thiocyanation of arylalkenes: a facile synthesis of dithiocyanates" *Synthesis* **2004**, 1983-1986.
Impact factor – 2.722
2. Yadav JS, Reddy BVS, Padmavani B and **Gupta MK** "Gallium(III) halide catalyzed coupling of indoles with phenylacetylene: synthesis of bis(indolyl)phenylethanes" *Tetrahedron Lett.* **2004**, 45, 7577-7579.
Impact factor – 2.125
1. Yadav JS, Reddy BVS, **Gupta MK**, Prabhakar A and Jagadeesh B "First example of ring expansion of activated quinolines and isoquinolines: novel benzoazepines" *Chem. Commun.* **2004**, 2124-2125.
Impact factor – 6.290

Conference Publications

2. O'Reilly K, **Gupta MK** and O'Sullivan TP "Enantioselective Peroxidation of Unsaturated Aldehydes – A New Route to Plakortide P" *65th Irish Universities Chemistry Research Colloquium* Dublin, Ireland in **2013**.
1. O'Reilly K, **Gupta MK** and O'Sullivan TP "Organocatalytic enantioselective peroxidation of unsaturated aldehydes - a new route to bioactive cycloperoxides" *North West Organic Chemistry Symposium* Liverpool, U.K in **2012**.

TEACHING AND LEARNING COURSES

- Completed Online Refresher Course in Chemistry for Higher Education Faculty through Annual Refresher Programme in Teaching (ARPIT) - March 2019.
- Participated in Short Term Course in Research Methodology from January 19 – 25, 2019 at HRDC, Lucknow University.
- Participated in Orientation Programme organized from August 23 - September 19, 2017 at HRDC, DDU Gorakhpur University.
- Teaching and Learning for Researchers 2012-2013 (Facilitators: Dr Bettie Higgs and Dr Marian McCarthy, and invited contributors, Ionad Bairre, The Teaching and Learning Centre, University College Cork, Ireland).

INVITED TALKS

- Centre of Biomedical Research, SGPGI MS Campus, Lucknow, Uttar Pradesh, July 5, 2016
Title - New Strategy for One-Carbon Homologation Functionalization Reactions

Delivered lectures in symposia

- Dr. K.V. Rao Scientific Society at B. M. Birla Science Centre, Hyderabad, 2008.
Title - Synthesis, self-assembly and cellular uptake studies of bioactive molecules.
- Second Junior National Organic Symposium Trust (J-NOST) at International College for Girls, Jaipur, India, 2006.
Title - Towards the total synthesis of macrolactin-A and development of one pot syntheses.

Poster presented in symposia

- Joint International Conference on Advances in Organic Synthesis and Chemical Biology, IICT Hyderabad, 2006.
Title: Exploring the application of activated quinolines and isoquinolines: L-proline catalyzed asymmetric addition reaction of activated isoquinolines with ketones.
 - 2nd International Conference on Organic Synthesis and Process Chemistry, IICT Hyderabad, 2005.
Title- First Example of ring expansion of activated quinolines and isoquinolines: novel benzoazepines.
-