




Faculty Details proforma for DU Web-site

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Title	Dr	First Name	BRAJENDRA	Last Name	SINGH	Photograph
Designation		ASSISTANT PROFESSOR				
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Educational Qualifications						
Degree		Institution			Year	
Ph.D.		University of Delhi			2007	
M.Phil. / M.Tech.						
PG		University of Delhi			2003	
UG		University of Delhi			2001	
Any other qualification						
Career Profile						
1.	Assistant Professor Department of Chemistry University of Delhi, Delhi, India				February 2010-till date	
2.	Associate Academic Staff Department of Chemistry University of Leuven, Leuven, Belgium				May 2007-October 2009	
3.	Visiting Fellow Department of Organic Chemistry Faculty of Bioscience Engineering Ghent University, Belgium				July 2007-September 2007	
4.	International Scholar Department of Chemistry University of Leuven, Leuven, Belgium				November 2005- March 2007	
5.	Erasmus Mundas Visiting Scholar Department of Chemistry University of Leuven, Leuven, Belgium				20th June 2014- 20th July 2014	
Administrative Assignments						

Areas of Interest / Specialization				
<ul style="list-style-type: none"> • Microwave Assisted Synthesis: Solution and Solid phase approach. • Bio-catalysis and Metal-Catalysis. • Synthesis of Peptidomimetic Small Molecules. • Biochemistry of malaria parasite and HIV virus. • Synthesis of enzyme-inhibitor complex. 				
Subjects Taught				
<p>Theoretical Courses: M. Sc. and M. Tech. (Chemical Synthesis and Process Technologies) Department of Chemistry, University of Delhi, Delhi, India</p> <ul style="list-style-type: none"> • Spectroscopy I and Spectroscopy II • Study of Reactive Intermediates • Methods in Organic Synthesis • Photochemistry and Pericyclic Reaction <p>• Practical / Experimental Courses M. Sc. (Chemistry) Previous and Final Department of Chemistry, University of Delhi, Delhi, India</p>				
Time table of the subjects taught during the current semester				
S. No.	Subject	Days	Time	Classroom
1.	Organic Spectroscopy	Thursday and Friday	14:00-14:55 14:55-15:50	Lecture Hall No 6
2.	Practical	Monday and Tuesday	9:00-13:00	Lab No 5
Research Guidance				
1. Supervision of awarded Doctoral Thesis				Five
2. Supervision of Doctoral Thesis, under progress				Four
Publications Profile				
Patents:				
<ol style="list-style-type: none"> 1. Thionated cinnamates and process for preparation thereof. Balaram Ghosh, Virinder S. Parmar, Ashok K. Prasad, Brajendra K. Singh, Sarvesh Kumar. <i>Indian Pat. Appl.</i> (2012), IN 2010DE00960 A 20121019. 2. Spiro[indoline-isoxazolidine] compounds having inhibitory effects on cytokine-induced cell adhesion molecule (ICAM-1) expression onto human endothelial cells. Balaram Ghosh, Virinder S. Parmar, Ashok K. Prasad, Brajendra K. Singh, Sakshi Balwani, Shashwat Malhotra. <i>Indian Pat. Appl.</i> (2012), IN 2011DE00115 A 20120720. 				
Publications:				
<ol style="list-style-type: none"> 1. Natural compounds and their analogues as potent antidotes against the most poisonous bacterial toxin. Kruti B. Patel, Shuowei Cai, Michael Adler, Brajendra K. Singh, Virinder S. Parmar, Bal Ram Singh. <i>Applied and Environmental Microbiology</i>, 2018, 84(24), e01280-18/1-e01280-18/15 2. Palladium (II)-catalysed intramolecular C-H functionalizations: Efficient synthesis of kealiinine C 				

- and analogues. Debasmita Saha, Izabela Stolarzewicz, Vijay Bahadur, Upendra K. Sharma, Leonid G. Voskressensky, Anuj Sharma, **Brajendra K. Singh**, Erik V Van der Eycken. *Molecular Catalysis*, **2018**, *455*, 233-238
3. One-Pot Synthesis and Photophysical Studies of Dihydropyrimidinone-Based Dyes: Novel Violet-Blue Light Emitting Fluorophores. Akanksha Matta, Mohit Gupta, Yogesh Kumar, Toshiaki Taniike, Johan Van der Eycken, **Brajendra K. Singh**. *ChemistrySelect*, **2018**, *3(38)*, 10815-10820.
 4. Antiplasmodial activity of hydroxyethylamine analogs: Synthesis, biological activity and structure activity relationship of plasmepsin inhibitors. Amit Kumar Singh, Vinoth Rajendran, Snigdha Singh, Prashant Kumar, Yogesh Kumar, Archana Singh, Whelton Miller, Vladimir Potemkin, Poonam, Maria Grishina, **Brajendra K. Singh**, Brijesh Rathi. *Bioorganic & Medicinal Chemistry*, **2018**, *26(13)*, 3837-3844.
 5. Microwave-Assisted Ruthenium-Catalysed ortho-C-H Functionalization of N-Benzoyl α -Amino Ester Derivatives. Nandini Sharma, Vijay Bahadur, Upendra K. Sharma, Debasmita Saha, Zhenghua Li, Yogesh Kumar, Jona Colaers, **Brajendra K. Singh**, Erik V. Van der Eycken. *Advanced Synthesis & Catalysis*, **2018**, *360(16)*, 3083-3089.
 6. *Protective effects of new antioxidant compositions of 4-methylcoumarins and related compounds with DL- α -tocopherol and L-ascorbic acid* Vessela D. Kancheva, Adriana K. Slavova-Kazakova, Silvia E. Angelova, Prashant Kumar, Shashwat Malhotra, **Brajendra K. Singh**, Luciano Saso, Anil K. Chhillar, Ashok K. Prasad, Virinder S. Parmar. *J. Sci. Food Agric.* **2018**, DOI. 10.1002/jsfa.8892
 7. Metal Free, "Regioselective, Dehydrogenative Cross Coupling Between Formamides/Aldehydes and Coumarine via C-H Functionalization. Mohit Gupta, Prashant Kumar, Vijay Bahadur, Krishan Kumar and **Brajendra K. Singh** *Eur. J. Org. Chem.* **2018**, 1552-1558.
 8. In Vitro Anti-malarial Evaluation of Piperidine and Piperazine Based Chalcones: Inhibition of Falcipain-2 and Plasmepsin II Hemoglobinases Activities from Plasmodium Falciparum. Hemandra K. Tiwari, Prashant Kumar, Nidhi Jatana, Sandeep Garg, N. Latha, Puran Singh Sijwali, Kailash C. Pandey, Nickolay Yu. Gorobets, Ben M. Dunn and **Brajendra K. Singh** *ChemistrySelect* **2017**, *2*, 7684-7690.
 9. Synergistic blending of high-valued heterocycles inhibits growth of Plasmodium falciparum in culture and P. berghei infection in mouse model. Prashant Kumar, Angela O. Achieng, Vinoth Rajendran, Prahlad C. Ghosh, **Brajendra K. Singh**, Manmeet Rawat, Douglas J. Perkins, Prakasha Kempaiah, Brijesh Rathi. *Scientific Reports*, **2017**, *7(1)*, 1-12.
 10. A Facile, Catalyst-free, Microwave-assisted Synthesis of 2-Aryl/Alkyl-3-(1H-benzo[d]imidazol-2-yl)-

2,3-dihydroquinazolin-4(1H)-ones. Prashant Kumar, Akanksha Matta, Snigdha Singh, Johan Van der Eycken, Christophe Len, Virinder S. Parmar, Erik V. Van der Eycken and **Brajendra K. Singh** *Synth. Commun.* **2017**, *47*, 756-763.

11. Akanksha Matta, Vijay Bahadur, Toshiaki Taniike, Johan Van der Eycken, Brajendra K. Singh Dyes and Pigments **2017**, *140*, 250-260
12. Nikolay Yu. Gorobets, Yuriy V. Sedash, **Brajendra K. Singh**, Poonam, Brijesh Rathi. Nikolay Yu. Gorobets, Yuriy V. Sedash, Brajendra K. Singh, Poonam, Brijesh Rathi. *Current Topics in Medicinal Chemistry*, **2017**, *17*, 1-14
13. Synthesis of macromolecular systems via lipase catalyzed biocatalytic reactions: applications and future perspectives. Amit Kumar, Abdullah Khan, Shashwat Malhotra, Ravi Mosurkal, Ashish Dhawan, Mukesh K. Pandey, **Brajendra K. Singh**, Rajesh Kumar, Ashok K. Prasad, Sunil K. Sharma, Lynne A. Samuelson, Ashok L. Cholli, Christophe Len, Nigel G. J. Richards, Jayant Kumar, Rainer Haag, Arthur C. Watterson and Virinder S. Parmar. *Chem. Soc. Rev.* **2016**, *45*, 6855-6887. (IF: 34.09, ISSN: 1460-4744)
14. Biocatalytic Synthesis of Novel Partial Esters of a Bioactive Dihydroxy 4-Methylcoumarin by *Rhizopus oryzae* Lipase (ROL). Vinod Kumar, Divya Mathur, Smriti Srivastava, Shashwat Malhotra, Neha Rana, Suraj K. Singh, **Brajendra K. Singh**, Ashok K. Prasad, Anjani J. Varma, Christophe Len, Ramesh C. Kuhad, Rajendra K. Saxena, Virinder S. Parmar. *Molecules* **2016**, *21*, 1499. (IF: 2.46, ISSN: 1420-3049)
15. Triphenyl phosphite-mediated "green" synthesis of novel carboxycoumarin amides. Pramod K. Sharma, Divya Mathur, Shashwat Malhotra, Neha Rana, **Brajendra K. Singh**, Ashok K. Prasad, Anjani J. Varma, Najam A. Shakil, Balaram Ghosh, Christophe Len. *Current Green Chemistry*, **2016**, *3*, 366-373. (IF: , ISSN: 2213-347X)
16. Design, synthesis and biological evaluation of Arylpiperazine-based novel Phthalimides: Active inducers of testicular germ cell apoptosis. Anil K. Singh, Jitender K Bharadwaj, Ana Olival, Yogesh Kumar, Avijit Podder, Ankur Maheshwari, Renuka Agarwal, N. Latha, **Brajendra K. Singh**, Helena Tomas, Joao Rodrigues, Ram Krishan, B. Rupini, Brijesh Rathi. *J. Chem. Sci.* **2016**, *128*, 1245-1263. (IF: 1.085, ISSN: 0973-7103)
17. Synthesis and anti-inflammatory activity evaluation of novel triazolyl-isatin hybrids. Pramod K. Sharma, Sakshi Balwani, Divya Mathur, Shashwat Malhotra, **Brajendra K. Singh**, Ashok K. Prasad, Christophe Len, Erik V. Van der Eycken, Balaram Ghosh, Nigel G. J. Richards, Virinder S. Parmar. *J. Enzyme Inhib. Med. Chem.* **2016**, *31*, 1520-1526. (IF: 2.50, ISSN: 1457-6374)

18. Microwave-Assisted, Metal-Free, Base-Mediated C-N Bond Formation/Cleavage: Synthesis of Benzimidazo[1,2-a]quinazoline Derivatives. Prashant Kumar, Anil K. Singh, Vijay Bahadur, Christophe Len, Nigel G. J. Richards, Virinder S. Parmar, Eric V. Van der Eycken, **Brajendra K. Singh**. *ACS Sustainable Chem. Eng.* **2016**, *4*, 2206-2210. (IF: 5.26, ISSN: 2168-0485)
19. Functionalized organic frameworks explored as second order NLO agents. Anil K. Singh, Brijesh Rathi, Volodymyr V. Medvediev, Oleg V. Shishkin, Vijay Bahadur, Taruna Singh, **Brajendra K Singh**, N Vijayn, V. Balachandran, Nikolay Yu Gorobets. *J. Chem. Sci.* **2016**, *128*, 297-309. (IF: 1.085, ISSN: 0973-7103)
20. Domino Carbopalladation/C-H Functionalization Sequence: An Expedient Synthesis of Bis-Heteroaryls through Transient Alkyl/Vinyl-Palladium Species Capture. Upendra K. Sharma, Nandini Sharma, Yogesh Kumar, **Brajendra K. Singh**, Erik V. Van der Eycken. *Chem. Eur. J.* **2016**, *22*, 481-485. (IF: 5.77, ISSN: 1521-3765)
21. Hydroxyethylamine Based Phthalimides as New Class of Plasmeprin Hits: Design, Synthesis and Antimalarial Evaluation. Anil K Singh, Sumit Rathore, Yan Tang, Nathan E Goldfarb, Ben M Dunn, Vinoth Rajendran, Prahlad C Ghosh, Neelu Singh, N Latha, **Brajendra K. Singh**, Manmeet Rawat, Brijesh Rathi. *PLoS ONE*, **2015**, *10*, e0139347.
22. Cu(I)-Catalyzed Microwave-Assisted Synthesis of 1,2,3-Triazole Linked with 4-Thiazolidinones: A One-Pot Sequential Approach. Yogesh Kumar, Akanksha Matta, Prashant Kumar, Virinder S. Parmar, Erik V. Van der Eycken, **Brajendra K. Singh**. *RSC Advances*, **2015**, *5*, 1628.
23. Antigiardial activity of novel triazolyl-quinolone-based chalcone derivatives: when oxygen makes the difference. Vijay Bahadur, Daniela Mastronicola, Hemandra Kumar Tiwari, Amit Kumar Singh, Leopoldo Paolo Pucillo, Paolo Sarti, **Brajendra K. Singh** and Alessandro Giuffrè *Front Microbiol.* **2015**, *6*, 256
24. Design, synthesis and biological evaluation of functionalized phthalimides: A new class of antimalarials and inhibitors of falcipain-2, a major hemoglobinase of malaria parasite. Singh, Anil K. ; Rajendran, Vinoth; Pant, Akanksha; Ghosh, Prahlad C.; Singh, Neelu; Latha, N.; Garg, Sandeep; Pandey, Kailash C.; **Brajendra K. Singh**; Rathi, Brijesh *Bioorganic and Medicinal Chemistry*, **2015**, *23*, 1817-1827.
25. Highly Selective Biocatalytic Transesterification Reactions on Aryl 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoates. Kumar, Gaurav, Dhawan, Ashish, **Brajendra K. Singh.**; Sharma, Nawal K.; Sharma, Sunil K., Prasad, Ashok K.; Vander Eycken, Erik V.; Len, Christophe; Watterson, Arthur C.; Parmar, Virinder S. *Catalysis Letters* **2015** *145*, 919-929.

26. Cu(I)-catalyzed microwave-assisted synthesis of 1,2,3-triazole linked with 4-thiazolidinones: a one-pot sequential approach. Yogesh Kumar, Akansha Matta, Prasant Kumar, V. S. Parmar, Erik V. Van der Eycken, **Brajendra K. Singh** *RSC Advances* **2015**, *5*, 1628-1639.
27. Microwave-assisted Cu(I)-catalyzed, three-component synthesis of 2-(4-((1-phenyl-1H-1,2,3-triazol-4-yl)methoxy)phenyl)-1H-benzo[d]imidazoles. Yogesh Kumar, Vijay Bahadur, Anil K. Singh, V. S. Parmar, Erik V. Van der Eycken, **Brajendra K. Singh** *Beilstein J. Org. Chem.* **2014**, *10*, 1413.
28. Synthesis, structural aspects and Nonlinear optical properties of novel phthalimide derivatives: Theoretical and Experimental approach. Anil K. Singh, V. Balachandran, N Vijayan, Vijay Bahadur, **Brajendra K. Singh** and Brijesh Rathi *Journal of Physical Organic Chemistry* **2014**, *27*, 490-497.
29. O₂-dependent efficacy of novel piperidine/piperazine-based chalcones against the human parasite *Giardia intestinalis*. Vijay Bahadur, Daniela Mastronicola, Hemandra Kumar Tiwari, Yogesh Kumar, Micol Falabella, Leopoldo Paolo Pucillo, Paolo Sarti, Alessandro Giuffrè and **Brajendra K. Singh** *Antimicrobial Agents and Chemotherapy* **2014**, *58*, 543-549.
30. Functionalized Hydroxyethylamine Based Peptide Nanostructures As Potential Inhibitors of Falcipain-3, an Essential Proteases of *Plasmodium falciparum*. Brijesh Rathi, Anil K. Singh, Ram Kishan, Neelu Singh, N. Latha, S. Srinivasan, Kailash C Pandey, Hemandra K. Tiwari and **Brajendra K. Singh**. *Bioorganic and Medicinal Chemistry*, **2013**, *21*, 5503
31. Microwave-Assisted Copper Azide Alkyne Cycloaddition (CuAAC) Reaction using D-Glucose as a Better Alternative Reductant. Yogesh Kumar, Vijay Bahadur, Anil K. Singh, V. S. Parmar, **Brajendra K. Singh** *J. Indian Chem. Soc.* **2013**, *90*, 1893-1903.
32. Entry of chiral phthalimides with significant second order nonlinear optical and piezoelectric properties. Anil K Singh, Ram Kishan, N. Vijayan, V. Balachandran, Taruna Singh, Hemandra K Tiwari, **Brajendra K. Singh** and Brijesh Rathi. *RSC Advances* **2013**, *3*, 14750-14756.
33. A novel cinnamate derivative attenuates asthma features and reduces bronchial epithelial injury in mouse model. Sarvesh Kumar, Ulaganathan Mabalirajan, Rakhshinda Rehman, **Brajendra K. Singh**, Virinder S. Parmar, Ashok K. Prasad, Shyam Biswal, Balaram Ghosh. *International Immunopharmacology* **2013**, *15* 150-159.
34. De novo design of small molecule inhibitors targeting the LEDGF/p75-HIV integrase interaction. Claudia Cavalluzzo, Arnout Voet, Frauke Christ, **Brajendra K. Singh**, Ajendra Sharma, Zeger Debyser, Marc De Maeyer, Erik Van der Eycken. *RSC Advances* **2012**, *2*, 974-984.
35. Arylalkyl Ketones, Benzophenones, Desoxybenzoin and Chalcones Inhibit TNF- α Induced Expression of ICAM-1: Structure-Activity Analysis. Kumar, Sarvesh; Reddy L, Chandra Shekhar; Kumar, Yogesh; Kumar, Amit; **Brajendra K. Singh**, Kumar, Vineet; Malhotra, Shashwat; Pandey,

- Mukesh K.; Jain, Rajni; Thimmulappa, Rajesh; Sharma, Sunil K.; Prasad, Ashok K.; Biswal, Shyam; Van der Eycken, Erik; DePass, Anthony L.; Malhotra, Sanjay V.; Ghosh, Balam; Parmar, Virinder S. *Archiv der Pharmazie* **2012**, *345*, 368-377.
36. Design, synthesis and biological activity evaluation of regioisomeric spiro-(indoline-isoxazolidines) on the inhibition of TNF- α induced ICAM-1 expression on human endothelial cells. By Malhotra, Shashwat; Balwani, Sakshi; Dhawan, Ashish; Raunak; Kumar, Yogesh; **Brajendra K. Singh**, Olsen, Carl E.; Prasad, Ashok K.; Parmar, Virinder S.; Ghosh, Balam *Med. Chem. Comm.* **2012**, *3*, 1536-1547.
37. Synthesis and biological activity evaluation of *N*-protected isatin derivatives as potent inhibitors of ICAM-1 expression on human endothelial cells. Shashwat Malhotra, Sakshi Balwani, Ashish Dhawan, **Brajendra K. Singh**, Sarvesh Kumar, Rajesh Thimmulappa, Shyam Biswal, Carl E. Olsen, Erik van Eycken Ashok K. Prasad, Balam Ghosh and Virinder S. Parmar *Med. Chem. Comm.* **2011**, *2*, 743-751.
38. Novel Natural Product-based Cinnamates and Their Thio and thiono-analogs as Potent Inhibitors of Cell Adhesion Molecules on Human Endothelial Cells. Sarvesh Kumar, **Brajendra K. Singh**, Pragya Arya, Shashwat Malhotra, Rajesh Thimmulappa, Ashok K. Prasad, Erik Van der Eycken, Carl E Olsen, Anthony L. DePass, Shyam Biswal, Virinder S. Parmar and Balam Ghosh *Eur. J. Med. Chem.* **2011**, *46*, 5498-5511.
39. *In vitro* interactions of coumarins with iron Přemysl Mladěnka, Kateřina Macáková, Libuše Zatloukalová, Zuzana Řeháková, **Brajendra K. Singh**, Ashok K. Prasad, Virinder S. Parmar, Luděk Jahodář, Radomír Hrdina and Luciano Saso. *Biochimie*, **2010**, *92*, 1108-1114.
40. Antioxidant properties of 4-methylcoumarins in *in vitro* cell-free systems Morabito Giuseppa, Trombetta Domenico, **Brajendra K. Singh**, Ashok K. Prasad, Virinder S. Parmar, Naccari Clara, Mancari Ferdinando, Saija Antonina, Cristani Mariateresa, Firuzi Omidreza, Luciano Saso. *Biochimie*, **2010**, *92*, 1101-1107.
41. Synthesis and lipase-catalysed enantioselective acylation studies on ethyl 4-aryl-3,4-dihydropyrimidin-2(1*H*)-ones. Ashok K Prasad, Pragya Arya, Sumati Bhatia, Raman K Sharma, Rishipal Singh, **Brajendra K. Singh**, Erik Van der Eycken, Rajpal Singh, Carl E Olsen and Virinder S Parmar. *Indian J. Chem.* **2009**, *48B*, 1738-1748.
42. Microwave Assisted Palladium-Catalyzed Heterogeneous Vinylation of 2(1*H*)-pyridone. **Brajendra K. Singh**, Claudia Cavalluzzo, Marc De Maeyer, Zeger Debyser, Virinder S. Parmar and Erik Van der Eycken *E. J. Org.*, **2009**, *4589-4592*.
43. Microwave-Assisted Silver Carbonate-Mediated Selective O-Alkylation of aromatic imidate systems: Systematic Study of Microwave Irradiation Effect on Nitrogen vs Oxygen Alkylation.

- Brajendra K. Singh**, Claudia Cavalluzzo, Marc De Maeyer, Zeger Debyser, Virinder S. Parmar and Erik Van der Eycken *Synthesis* **2009**, 2725-2728.
44. Copper-Mediated N- and O- Arylations with Phenylboronic Acids in a Continuous flow Microreactor. **Brajendra K. Singh**, Christian V. Stevens, Davy R. J. Acke, Virinder S. Parmar and Erik V. Van der Eycken. *Tetrahedron Letters*, **2009**, 50, 15-18.
45. Rapid Pd-Catalysed C3-Arylation of 2(1H)-pyrazinones: Effect of Simultaneous Cooling on Microwave-assisted reactions on solid support. **Brajendra K. Singh**, Virinder S. Parmar and Erik V. Van der Eycken. *Synlett*, **2008**, 3021-3025.
46. Transition Metal-Catalyzed Carbon Carbon Bond Formation Suzuki, Heck, and Sonogashira Reactions Using Microwave and Microtechnology. **Brajendra K. Singh**, Nadya Kaval, Erik Van der Eycken and V. S. Parmar. *Org. Process. Res. Dev.* **2008**, 12, 468-474.
47. Palladium-catalyzed copper (I)-mediated coupling of arylboronic acids and 2(1H)-pyrazinones facilitated by microwave irradiation with simultaneous cooling. **Brajendra K. Singh**, V. P. Mehta, V. S. Parmar and Erik Van der Eycken. *Organic and Biomolecular Chemistry*, **2007**, 5, 2962-2965.
48. Transition metal-catalyzed orthogonal solid-phase decoration of the 2(1H)-pyrazinone scaffold using a sulfur linker. Nadya Kaval, **Brajendra K. Singh**, D. S. Ermolat'ev, Stijn Claerhout, V. S. Parmar, Johan Van der Eycken and Erik Van der Eycken. *Journal of Combinatorial Chemistry*, **2007**, 9, 446-453.
49. Chromone analog inhibits TNF- α induced expression of cell adhesion molecules on human endothelial cells via blocking NF- κ B activation. Sarvesh Kumar, **Brajendra K. Singh**, A. K. Pandey, Ajit Kumar, S. K. Sharma, H. G. Raj, A. K. Prasad, Erik Van der Eycken, V. S. Parmar and Balaram Ghosh. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 2952-2962.
50. Specificities of acetoxy derivatives of coumarins, biscoumarins, chromones, flavones, isoflavones and xanthenes for acetoxy drug: protein transacetylase. Ajit Kumar, **Brajendra K. Singh**, N. K. Sharma, K. Gyanda, S. K. Jain, Y. K. Tyagi, A. S. Baghel, Mukesh Pandey, S. K. Sharma, A. K. Prasad, S. C. Jain, R. C. Rastogi, H. G. Raj, A. C. Watterson, Erik Van der Eycken and V. S. Parmar. *European Journal of Medicinal Chemistry*, **2007**, 42, 447-455.
51. Copper (II)-mediated cross-coupling of arylboronic acids and 2(1H)-pyrazinones facilitated by microwave irradiation with simultaneous cooling. **Brajendra K. Singh**, Prasad Appukkuttan, Stijn Claerhout, V. S. Parmar and Erik Van der Eycken. *Organic Letters*, **2006**, 8, 1863-1866.
52. Novel aromatic ester from *Piper longum* and its analogues inhibit expression of cell adhesion molecules on endothelial cells. Sarvesh Kumar, Pragya Arya, Chandrani Mukherjee, **Brajendra K. Singh**, Naresh Singh, V. S. Parmar, A. K. Prasad, Balaram Ghosh. *Biochemistry*, **2005**, 44, 15944-15952.

53. Solvent-free biocatalytic amidation of carboxylic acids. A. K. Prasad, Mofazzal Husain, **Brajendra K. Singh**, R. K. Gupta, V. K. Manchanda, C. E. Olsen and V. S. Parmar. *Tetrahedron Letters*, **2005**, *46*, 4511-4514.
54. Mechanism of biochemical action of substituted 4-methylcoumarins. Part 11: Comparison of the specificities of acetoxy derivatives of 4-methylcoumarin and 4-phenylcoumarin to acetoxycoumarins: protein transacetylase. Ajit Kumar, **Brajendra K. Singh**, Rahul Tyagi, S. K. Jain, S. K. Sharma, A. K. Prasad, H. G. Raj, R. C. Rastogi and V. S. Parmar. *Bioorganic and Medicinal Chemistry*, **2005**, *13*, 4300-4305.
55. Acetoxy drug: protein transacetylase: A novel enzyme mediating protein acetylation by polyphenolic peracetates. H. G. Raj, **Brajendra K. Singh**, V. S. Parmar, Ekta Kohli, B. S. Dwarkanath, S. C. Jain, R. C. Rastogi, Ajit Kumar, J. S. Adhikari, A. C. Watterson and C. E. Olsen. *Pure and Applied Chemistry*, **2005**, *77*, 245-250.
56. Novel thiocoumarins as inhibitors of TNF- α induced ICAM-1 expression on human umbilical vein endothelial cells (HUVECs) and microsomal lipid peroxidation. Sarvesh Kumar, **Brajendra K. Singh**, Neerja Kalra, Vineet Kumar, A. K. Prasad, H. G. Raj, V. S. Parmar and Balaram Ghosh. *Bioorganic and Medicinal Chemistry*, **2005**, *13*, 1605-1613.
57. Acetoxy drug: protein transacetylase: A novel enzyme mediating protein acetylation by polyphenolic peracetates. H. G. Raj, V. S. Parmar, Ekta Kohli, B. S. Dwarkanath, S. C. Jain, R. C. Rastogi, Ajit Kumar, **Brajendra K. Singh**, J. S. Adhikari, A. C. Watterson and C. E. Olsen. *Bioresources Towards Durg Discovery and Development*, Editors: A. Guib-Fakim, P. Ramasami, H. Li Kam Wah, S. Jhaumeer-Laulloo and A. H. Subratty. University of Mauritius press, Reduit, **2005**, 205-212.

Publications in the Last one year

1. Natural compounds and their analogues as potent antidotes against the most poisonous bacterial toxin. Kruti B. Patel, Shuowei Cai, Michael Adler, **Brajendra K. Singh**, Virinder S. Parmar, Bal Ram Singh. *Applied and Environmental Microbiology*, **2018**, *84(24)*, e01280-18/1-e01280-18/15
2. Palladium (II)-catalysed intramolecular C-H functionalizations: Efficient synthesis of kealiinine C and analogues. Debasmita Saha, Izabela Stolarzewicz, Vijay Bahadur, Upendra K. Sharma, Leonid G. Voskressensky, Anuj Sharma, **Brajendra K. Singh**, Erik V Van der Eycken. *Molecular Catalysis*, **2018**, *455*, 233-238
3. One-Pot Synthesis and Photophysical Studies of Dihydropyrimidinone-Based Dyes: Novel Violet-Blue Light Emitting Fluorophores. Akanksha Matta, Mohit Gupta, Yogesh Kumar, Toshiaki Taniike, Johan Van der Eycken, **Brajendra K. Singh**. *ChemistrySelect*, **2018**, *3(38)*, 10815-10820.

4. Antiplasmodial activity of hydroxyethylamine analogs: Synthesis, biological activity and structure activity relationship of plasmepsin inhibitors. Amit Kumar Singh, Vinoth Rajendran, Snigdha Singh, Prashant Kumar, Yogesh Kumar, Archana Singh, Whelton Miller, Vladimir Potemkin, Poonam, Maria Grishina, **Brajendra K. Singh**, Brijesh Rathi. *Bioorganic & Medicinal Chemistry*, **2018**, 26(13), 3837-3844.
5. Microwave-Assisted Ruthenium-Catalysed ortho-C-H Functionalization of N-Benzoyl α -Amino Ester Derivatives. Nandini Sharma, Vijay Bahadur, Upendra K. Sharma, Debasmita Saha, Zhenghua Li, Yogesh Kumar, Jona Colaers, **Brajendra K. Singh**, Erik V. Van der Eycken. *Advanced Synthesis & Catalysis*, **2018**, 360(16), 3083-3089.
6. *Protective effects of new antioxidant compositions of 4-methylcoumarins and related compounds with DL- α -tocopherol and L-ascorbic acid* Vessela D. Kancheva, Adriana K. Slavova-Kazakova, Silvia E. Angelova, Prashant Kumar, Shashwat Malhotra, **Brajendra K. Singh**, Luciano Saso, Anil K. Chhillar, Ashok K. Prasad, Virinder S. Parmar *J. Sci. Food Agric.* **2018**, DOI. 10.1002/jsfa.8892
1. Metal Free, "Regioselective, Dehydrogenative Cross Coupling Between Formamides/Aldehydes and Coumarine via C-H Functionalization. Mohit Gupta, Prashant Kumar, Vijay Bahadur, Krishan Kumar and **Brajendra K. Singh** *Eur. J. Org. Chem.* **2018**, 1552-1558.

Conference Organization/ Presentations (in the last three years)

- ✓ *Indo-German Workshop on Multivalent Macromolecular Architectures for Biomedical Applications. 5-6 April 2019, Department of chemistry, University of Delhi, Delhi, India.*
- ✓ *25th ISCB International Conference (ISCBC-2019) on "Trends in Chemical and Biological Sciences: Impact on Health and Environment" 12-14 January, 2019, Lucknow, India.*
- ✓ *Chemist: The elite people Annual fest Khruos-2017 on 9th March 2017 at Department of chemistry, Kirori Mal College, University of Delhi, Delhi, India.*
- ✓ *Microwave assisted, metal-free, base-mediated C-N bond formation/cleavage: synthesis of benzimidazol[1,2-a]quinazoline derivatives 15th Belgian Organic Synthesis Symposium BOSS XV Antwerp (Belgium), 10-15 July 2016.*
- ✓ *Phthalimide and its derivatives: A new class of antimalarial agents International conference on current challenges in drug discovery research (CCDDR-2015) 23-25 November 2015 at MNIT Jaipur, Rajasthan, India*
- ✓ *Glucose: A better alternative reductant for copper(I) catalyzed heterocyclic ring formation*
Glucose: A better alternative reductant for copper(I) catalyzed heterocyclic ring formation

Research Projects (Major Grants/Research Collaboration)

- ✓ *LASTEC, DRDO, New Delhi: Studies on methodologies for synthesis of rare earth impregnated inorganic liquid medium (9.9 Lac for one year, 2017-2018)*
- ✓ **University of Delhi:** *Strengthen R & D Doctoral Research Programme by providing funds to university faculty (2.5 Lac for year 2010, 2.5 Lac for 2011 & 2.5 Lac for 2012)*
- ✓ *Department of Science & Technology: Fast Track Scheme for Young Scientist Microwave Assisted Synthesis of Proteomimetics for the Inhibition of the Interaction of HIV-Integrase and Cellular Cofactor LEDGF/p75 (26.52 Lac for three years)*
- ✓ *Principal Investigator of Indo-Ukrainian Joint Project titled "Design and synthesis of novel*

<p><i>functionalized chalcones as inhibitors of hemoglobin-degrading malarial cysteine proteases, falcipain 2/3”, 2012-15 (10 Lac for three years)</i></p> <p>✓ <i>Indo-Belgian Research and Technology Cooperation 2012 topping-up grant 2014-2017 (30 Lac for three years)</i></p>
<p>Awards and Distinctions</p> <ul style="list-style-type: none"> • Worked as International Scholar at the <i>Laboratory for Organic and Microwave-Assisted Chemistry (LOMAC), Department of Chemistry, K.U. Leuven, Heverlee, Belgium</i> with <i>Professor Erik Van der Eycken</i> from Nov 2005 - March 2007. • Worked as postdoctoral fellow at the <i>Laboratory for Organic and Microwave-Assisted Chemistry (LOMAC), Department of Chemistry, K.U. Leuven, Heverlee, Belgium</i> with <i>Professor Erik Van der Eycken</i> from May 2007 - October 2009. • Worked as Visiting Fellow at Department of Organic Chemistry, Faculty of Bioscience Engineering, Ghent University, Belgium with <i>Professor Christian Stevens</i> from July 2007 - September 2007
<p>Association With Professional Bodies</p> <ul style="list-style-type: none"> • Reviewing • Advisory • Committees and Boards • Memberships • Office Bearer
<p>Other Activities</p>

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.