




University Faculty Details Page on DU Web-site

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Title	Prof./Dr./Mr./Ms.	First Name	Subhash	Last Name	Jain	Photograph
Designation	Professor					
Department	Department of Chemistry					
Address (Campus) (Residence)	North Campus, University of Delhi, Delhi – 110 007					
	A-2/229 Paschim Vihar, New Delhi-110063					
Phone No (Campus) (Residence) optional	91-11-2766 7725/1387 Extn.					
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Education						
Subject	Institution			Year	Details	
Ph.D Chemistry	Delhi University			1977	Thesis topic: "A Chemical Study of Some Naturally Occurring Polyphenolics"	
MSc Chemistry	Delhi University			1970	Subjects: Specialization in Organic Chemistry	
BSc (Hons) Chemistry	Delhi University			1968	Subjects: Chemistry, Physics, Maths.	
Career Profile						
Organization / Institution		Designation		Duration	Role	
Department of Chemistry, University of Delhi		Professor		1997 – to date	Teaching & Research	
Department of Chemistry, University of Delhi		Reader		1987 -1997	Teaching & Research	
Department of Chemistry, Baker Labs, Cornell University, Ithaca, New York, USA		Post Doctoral Fellow		1979-82	Research	
KM College, University of Delhi		Lecturer		1970 -1987	Teaching	
Research Interests / Specialization						
Specialization: Organic and Bioorganic Chemistry.						
Research Interests:						
<ul style="list-style-type: none"> ▪ Isolation and structural elucidation of biologically active natural products of insect, plant and marine origin. ▪ Total synthesis of cytotoxic, antioxidant and antimicrobial compounds of plant and marine sources and their analogs. ▪ Design and development of new eco-friendly strategies for the synthesis of novel heterocycles of medicinal, agricultural and industrial importance. 						

Teaching Experience (Subjects/Courses Taught)			
<ul style="list-style-type: none"> ▪ Taught B.Sc (Hons) Chemistry course from 1970-1987 at KM College, University of Delhi, Delhi. ▪ Teaching M.Sc/MPhil/Ph.D Chemistry courses from 1987 to date at the Department of Chemistry, University of Delhi, Delhi. 			
Honors & Awards			
<ul style="list-style-type: none"> ▪ Awarded National Scholarship (Govt. of India) for post graduate studies at Delhi University (1968-69 & 1969-70). ▪ Awarded National Scholarship (Govt. of India) for studies abroad (1979-82). ▪ Awarded NIH & Schering – Plough Corp Fellowship (1979). ▪ Awarded Senior Science Exhibition Prize (1970) by the University of Delhi. ▪ Awarded Shiksha Rattan Puraskar by IIFS in 2011. 			
Research Guidance			
<ul style="list-style-type: none"> ▪ Supervision Of awarded Doctoral thesis : 28 ▪ Supervision Of Doctoral thesis, under progress : 04 ▪ Supervision Of awarded M.Phil. dissertation : 16 ▪ Supervision Of M.Phil. dissertation, under progress : -- 			
Publications (LAST FIVE YEARS)			
<u>Books / Monographs</u>			
<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>Co-Author</u>
<u>In Indexed/ Peer Reviewed Journals</u>			
<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2010	<u>Patents:</u> <ul style="list-style-type: none"> ▪ International application published under the Patent Cooperation Treaty (PCT) on “<i>Withania somnifera</i> plant extract and method of preparation thereof” 	W02010/013254 A2 dated 04.01.2010	R Vijayalaksmi; Gupta Alok; Sehgal Neha; Jain S. C; Thakur S and Khanna P.
2008	Coumarin compound for the treatment of Cardiovascular disease and a process for preparing the same	CBRNO: 4891 dt 23/06/2008	V S Parmar; H G Rai; S C Jain and A Prashad
2013	New trifluoromethyl quinoline derivatives: Synthesis and investigation of antimicrobial properties.	Bioorganic & Medicinal Chemistry Letters http://dx.doi.org/10.1016/J.bmcl.2013.03.120	Siva S Panda and Subhash C Jain
2013	Synthesis and antimicrobial activity of novel bis-azaphenothiazines	Medicinal Chemistry Research, 22, 4459-4467	Khushbu Kushwaha, Rajeev Sakhuja and Subhash C Jain
2013	Synthesis and QSAR studies of some novel disubstituted 1,2,4-triazoles as antimicrobial agents	Medicinal Chemistry Research, DOI10.1007/s00044-013-0686-1	Siva S Panda and Subhash C Jain

2013	Xanthenes as potential antioxidants	Current Medicinal Chemistry, 20, PMID:23834190	Siva S Panda, Mahesh Chand, Rajeev Sakhuja and Subhash C Jain
2012	<i>Withania somnifera</i> reverses Alzheimer's disease pathology by enhancing low-density lipoprotein receptor-related protein in liver	Proc Nat. Aca. Sc. (USA), 2012, 109(9), 1-6	Sehgal, A. Gupta, R K Valli, S D Joshi, J T Mills, E. Hamel, P. Khanna, Subhash C Jain , S S Thakur, and V. Ravindranath
2012	An efficient and convenient microwave-assisted chemical synthesis of (thio)xanthenes with additional <i>in vitro</i> and <i>in silico</i> characterization	<i>Bioorganic & Medicinal Chemistry</i> , 20, 10, 3180-3185	<i>Donatella Verbanac, Subhash C Jain, Nidhi Jain, Mahesh Chand, Hana cipcic Paljetak, Mario Matijašić, Mihaela Peric, Višnja Stepanic and Luciano Saso</i>
2012	Synthetic approaches to 2-arylbenzimidazoles: A Review	Current Organic Chemistry, 16, 1905-1919	Siva S Panda, Ritu Malik and Subhash C Jain
2012	Antitermite Activities of <i>C. deciduea</i> extracts and pure compounds against Indian White Termite <i>Odontotermes obesus</i> (Isoptera: Odontotermitidae)	Psyche, Article ID 820245, 9 pages DOI:10.1155/2012/820245	R K Upadhyay, G. Jaiswal, S. Ahmad, L. Khanna, and Subhash C Jain
2012	An eco-friendly synthesis of some novel symmetrical bis spiro-indoles	Phosphorus, Sulfur, and Silicon and the Related Elements, 187, 101-111	Siva S Panda, Nidhi Jain, Nusrat Jehan, Sunita Bhagat and Subhash C Jain
2012	On water synthesis of spiro-indoles via Schiff bases	Montash Chem., 10 January, DOI 10.1007/s00706-011-0697-x	Siva S Panda and Subhash C Jain
2012	Synthesis and antimicrobial activity of some new 4-triazolylmethoxy-2H-chromen-2-one derivatives	Medicinal Chemistry Research, online, 21, 3750-3756	Siva S Panda, Ritu Malik, Mahesh Chand and Subhash C Jain
2011	Design and synthesis of spiro[Indole-thiazoline] spiro[Indole-pyrans] as antimicrobial agents	Bioorganic & Medicinal Chemistry Letters 21,5465-5469	Rajeev Sakhuja, Siva S Panda, Leena Khanna, Shilpi Khurana and Subhash C Jain
2011	Synthesis of 2-arylbenzimidazoles in water	Synth. Commun., 41 (5), 729-735	Siva S Panda and Subhash C Jain
2011	Microwave assisted synthesis of azoniaspiro compounds using a novel catalyst : 1-azaphenothiazine	Synth. Commun., 41(3), 411-416	Archana Gupta; Rajiv Sakhuja; Khusbhu Kushwaha and Subhash C Jain

2011	'In Water' synthesis of heterocyclic compounds	Mini Review in Organic Chemistry, 8(4), 455-464	Siva S Panda and Subhash C Jain
2010	Screening and antimicrobial potential of extracts and pure compounds isolated from <i>Capparis decidua</i>	Journal of medicinal Plant Research, 4(6), 439-445	R K Upadhyay; Shoeb Ahmad; Rajni Tripathi; Leena Rohtagi and Subhash C Jain
2009	Synthesis of novel symmetrical and unsymmetrical bis spiro[indole-indazolyl-thiazolidine]-2,4'-diones	Arkivoc VII, 119-125	Pankaj Khanna; Anjali Saxena; Leena Khanna; Sunita Bhagat and Subhash C Jain
2008	A facile synthesis of novel unsymmetrical bis-spiro[indole-pyrazoliny]-thiazolidine]-2,4'-diones	Arkivoc XV, 54-64	Manish Jain; Rajeev Sakhuja; Pankaj Khanna; Sunita Bhagat and Subhash C Jain
2007	Microwave-Assisted Synthesis of 10-(Phthalimidoalkyl)-Halosubstitutedpyrido[3,2-b][1,4]-benzothiazine in Dry Media	Synth. Commun., 37, 4059-4069	Archana Gupta; Rajeev Sakhuja and Subhash C. Jain
2007	A new flavone glycoside from <i>Zanthoxylum acanthopodium</i> DC	Indian J. Chem., 46B, 842-844	B Ravindra Babu; Shilpi Khurana; Rajeev Sakhuja; Amit K Srivastava and Subhash C Jain
2006	Ovipositional responses of the pulse beetle, <i>Bruchus chinensis</i> (Coleoptera: Bruchidae) to extracts and compounds of <i>Capparis deciduas</i>	J. Agri. Food Chem., 54, 9747-9751	Ravi K Upadhyay; Leena Rohatgi; Mukesh K Chaubey and Subhash C Jain
2006	Alkaloids from <i>Toddalia acualeata</i>	Phytochemistry, 67, 1005-1010	Subhash C Jain ; Mukesh K Pandey; Ravi K Upadhyay; Rohtash Kumar; Geeta Hundal and Maninder S Hundal
2006	Synthesis of New Bridgehead Heterocycles: Pyrimido[3'2':3,4]-1,2,4-triazino[5,6-b]indoles	Heteroatom Chemistry, 17, 272-276	Sunita Bhagat; Manish jain; Mukesh K Pandey; Pragati; Anjali Saxena and Subhash C Jain.
2006	One pot facile synthesis of 5-alkyl-1,2-dihydro-spiro[4H-3,1-benzoxazine-2,3[3H]indol]-4,2'-diones under microwave irradiation	Indian J. Chem., 45B, 1504-1510	Anjali Saxena; Pankaj Khanna; Sunita Bhagat; Archana Gupta and Subhash C Jain
2006	Synthesis of novel bis-spiro[indol-pyrazoliny]-thiazolidine]-2,4'-dione	Synth. Commun., 36, 1863-1872	Manish Jain; Pankaj Khanna; Anjali Saxena; Sunita Bhagat; Carl E Olsen and Subhash C Jain
2006	Lewis acid promoted synthesis of 2(3H)-benzopyrones	Indian J. Chem., 45B, 2546-2548	B Ravindra Babu; Shilpika Bali; Rajeev Sakhuja and Subhash C Jain

2005	Synthesis of novel non-isoprenoid phenolic acids and 3-alkylpyridines	Pure and Applied Chemistry, 77(1), 185-193	Subhash C Jain; Rohtash Kumar; Rajeev Goswami; Mukesh K Pandey; Shilpi Khurana; Leena Rohatgi and Kapil Gyanda
2005	Novel fluoroinated spiro[Indole-indazolyl-thiazolidine]-2,4'-diones: Design and synthesis	Phosphorus, Sulphur and Silicon and the related elements. 180(8), 1829-1840	Subhash C Jain; Pankaj Khanna; Sunita Bhagat; Manish Jain and Rajeev Sakhuja

Articles

- "Phytochemistry of Piper genus" published in *Phytochemistry*, 1997, 46(4), 597-673.
- "Antitermites activities of *C. decida*" Extracts and Pure Compounds against Indian White Termites, *odontotermes obesus* (isoptera odontotermitidae). *Pshche*, Article ID820245, 9 pages, DOI: 10.1155/2012/820245.
- Synthetic approaches to 2-arylbenzimidazoles: A Review, Published in *Current Organic Chemistry*, 2012, 16, 1905-1919, Siva S Panda, Ritu Malik and Subhash C Jain
- Xanthenes as potential antioxidants: A Review , published in *Current Medicinal Chemistry*, 2013, PMID: 23834190, Siva S Panda, Mahesh Chand, Rajeev Sakhuja and Subhash C Jain

Conference Presentations

- Synthesis of novel pharmacophores via a clean, benign and green protocol, 17th Annual Green Chemistry & Engineering Conference held at North Bethesda, Maryland (USA), 18-20 June, 2013.
- Design and Synthesis of novel molecules based on natural products in search of a drug candidate, 1st International Conference on Recent Advances in Chemical Sciences (Novel Molecules for Diagnosis and Therapeutics) held at Panipat, 24-26 February 2013.
- Synthesis of novel pharmacophores for the discovery of drug candidate, Conference on Emerging Trends in Development of Drug and Devices held at Delhi on 21-23 January, 2013.
- Synthesis of some biologically active compounds via Green Chemistry, International Conference on Interface between Chemistry & Environment held at Delhi, 13-14 December, 2012.
- Natural Product: Essential Resources for Drug Discovery, International Conference on Global Trends in Pure and Applied Chemical Sciences, held at Udaipur, Rajasthan (India) in 2012.
- Aqua mediated synthesis of pharmacologically active compounds; Synthesis and antimicrobial activity of novel triazolylchromen-2-ones; Design and synthesis of spiro(indole-thiazolidine) spiro(indole-pyrans) as antimicrobial agents, APA International Conference on Advances in Healthcare system, held at New Delhi (India) in 2012.
- Synthesis of novel heterocycles to discover potent pharmacophore for drug discovery. Gyan Sagar Science Foundation Conference, held at Mumbai (India) in 2012.
- From studies of natural product to heterocyclic synthesis in search of a drug candidate: An overview, 3rd International Conference on Heterocyclic Chemistry, held at Jaipur, Rajasthan in 2011.
- Synthesis of novel heterocycles containing bioactive scaffolds using click chemistry; Synthesis and antimicrobial activity of novel triazolylchromen-2-ones; Design and synthesis of spiro(indole-thiazolidine) spiro(indole-pyrans) as antimicrobial agents, 3rd International Conference on Heterocyclic Chemistry, held at Jaipur, Rajasthan in 2011.
- Natural Products : Nature's gift for drug discovery. Symposium on advances in chemistry held at BITS, Pilani, on 26th March 2011.
- Natural Products : Nature's gift for drug discovery. National seminar on recent advances in synthesis and catalysis. held at Dibrugarh, Assam, on 10-12 Feb 2011.

- Synthesis and biological evaluation of some novel symmetrical and unsymmetrical bis spiro-indoles. Annual Conference, Indian council of chemists, held at Chandigarh, 19-21 Dec, 2010.
- Novel natural products and their analogs possessing anticancer, antimicrobial and antioxidant activities. 8th Indo-Italian workshop on chemistry and biology of anti-oxidants held in Rome, Italy, 30 Nov- 1 Dec. 2010.
- 7th Indo-Italian workshop on Chemistry & biology of antioxidants held in Delhi on Nov. 16, 2010.
- Natural Products: Essential resources for drug discovery. National Symposium on Chemistry biology interface: Recent Trends , held at Ranikhet, Nainital, 28th-30th October, 2010.
- A facile synthesis of symmetrical bis spiro-indoles of biological interest. National Symposium on Chemistry biology interface: Recent Trends , held at Ranikhet, Nainital, 28th-30th October, 2010.
- Design, synthesis and biological evaluation of novel triazolylcoumarins. National Symposium on Chemistry biology interface: Recent Trends , held at Ranikhet, Nainital, 28th-30th October, 2010.
- Aqua mediated regioselective synthesis of some pharmacologically active compounds. 14th Annual Green Chemistry and Engineering Conference held at Washington DC (USA), 21-23 June 2010.
- Essential oils as potent anti-insectants. Asian Essential oil congress held at Gurgaon, NCR, Delhi, 7-9 May 2010.
- Natural products based pharmacophores for drug discovery. International Science Symposium Conducted by Gyan Sagar Science Foundation held at Bangalore, 29 Jan. 2010.
- A Green Protocol for the Synthesis of Pharmacologically Active Spiro-indoles and 2-ArylBanzimidazoles. 13th Annual Green Chemistry and Engineering Conference held at Maryland (USA), 23-25 June 2009.
- Natural Products: Essential source for drug discovery. 13th ISCB International Conference on Interplay of Chemical and Biological Science: Impact on Health and Environment (ISCBC - 2009) held at Delhi, 26 Feb – 1st March 2009.
- Bio-Pesticide in Action. Pest Summit 2008, on Global Warming and its Impact on Pest Management held at Bangkok (Thailand), 12-15 August 2008.
- A Clean, Benign and Aqua Mediated Synthesis of Pharmacologically Active Spiro Heterocycles. 12th Annual Green Chemistry and Engineering Conference held at Washington DC (USA), 23-26 June 2008.
- National Symposium on Emerging Trends in Advanced Chemistry (ETAC - 08), held at Jaipur, 08-09 March 2008.
- A Journey from natural Products to Syntheses in search of a drug candidate. International Conference on the Interface of Chemistry-Biology in Biomedical Research held at Pilani (India), 22-24 February 2008.
- A Greener Method for the Construction of Nitrogen Heterocycles using Novel Catalyst. 11th Annual Green Chemistry and Engineering Conference held at Washington DC (USA), 26-29 June 2007.
- Bioactive Natural Products as leads for Drug Discovery. 2nd Indo- Italian Workshop on Chemistry and Biology of Antioxidants held at Rome (Italy), 9-11 July 2007.
- Cytotoxic and Antimicrobial Compounds of Natural Origin: Design and Synthesis, 2nd International Conference on Heterocyclic Chemistry held at Jaipur (India), 16-19 December 2006.
- Elegant Synthesis of Novel Fluorine Containing Spiro and Bis-spiro Indoles of Biological Interest, 2nd International Conference on Heterocyclic Chemistry held at Jaipur (India), 16-19 December 2006.
- Role of Plant Chemicals in IPM, Conference on Natural Products and Biodiversity: Chemistry and Utilization held at Dehradun (India), 2-3 November 2006.
- Synthesis of Some Cytotoxic and Antimicrobial Compounds of Natural Origin via Sulfone Intermediates, The Post Symposium for ICOB-5 & ISCNP-25 International Conference held at Fukoka (Japan), 30-31 July 2006.
- Synthesis of Novel Nitrogen Heterocycles by Exploring the Reactivity and Catalytic Selectivity of 1-Azaphenothiazines Under Microwave Irradiation, 2nd International Conference on Heterocyclic Chemistry held at Jaipur (India), 16-19 December 2006.
- Synthesis of Bioactive Alkylpyridium Alkaloid from Marine Sponge-Ikimine C, National Symposium on New Challenges in Chemistry held at Amritsar (India), 20-21 March 2006.
- A Facile One Pot Synthesis of Some Novel 1,2-Dihydro-5-methyl-spiro[4H-3,1-benzopyrazine-2,3'[H]indol]-4,2'(1'H)-

diones, National Symposium on New Challenges in Chemistry held at Amritsar (India), 20-21 March 2006.

- Microwave Assisted Synthesis of 10-(Phthalimidoalkyl) halo substituted pyrido[3,2-b]benzothiazine in Dry Media, National Symposium on New Challenges in Chemistry held at Amritsar (India), 20-21 March 2006.
- Variability in Antioxidants among Different Populations of *Acacia catechu*, Indo-Italian Workshop on Chemistry and Biology of Antioxidants held at Delhi (India), 8-9 January 2006.
- Emerging Trends of Biopesticides in Pest Management, 16th FOPMA Convention held at Mumbai (India), 25-26 November 2004.

Total Publication Profile optional

Books

10 Books (2 under preparation)

In Indexed/ Peer Reviewed Journals

128 Publication in Journals

Articles

Four

Conference Presentations

132 Conference Presentations (International – 91 and National – 41)

Public Service / University Service / Consulting Activity

- As Provost in the Administration of a post graduates Institution, Jubilee Hall University of Delhi from 2002-2008
- As Warden in the Administration of a post graduates Institution, Jubilee Hall University of Delhi from 1998-2002
- As coordinator conducted a post-graduation course in Agrochemical and Pest Management (under Faculty of Science), University of Delhi, Delhi from 2000-2008.
- As Teacher incharge in the Administration of Department of Chemistry, KM College, Delhi University, from 1978-79.
- As a Chief Returning Officer in conducted Delhi University Student Union (DUSU) Elections in 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004 and 2005.
- As a Liason officer Co-ordinated the Central evaluation at examination branch, University of Delhi for the session 1998-1999 and 1999-2000.
- Participated in updating the syllabi of the postgraduate courses in Chemistry and in Agrochemical and Pest Management as a member of the Committee of Courses.
- As a Co-ordinator, looked after the examinations of BSc (G) and BSc (H) (theory as well as practical) during 1997-98, and 2007-08.
- Delivered several lectures from time to time to the participants attending refresher/orientation courses of UGC at CPDHE, University of Delhi and other Universities.
- As a member of advisory editorial board of Indian Perfumer, Indian Journal of Heterocyclic Chemistry and Heterocyclic Communication, improved the quality and popularity of these Journals. Editorial board referee on various National and International journals.

Professional Societies Memberships

- Life member Indian Science Congress.
- Life member Society of Pesticide Science, India.
- Life member of Indian Council of Chemistry.
- Life member of Essential oil Association of India.
- Life member of Association of Chemistry Teachers (ACT)
- Chairperson/ Expert member of PRC committees of various scientific agencies.
- Member advisory council, Ayurved Vishwa Parishad, World Academy of Ayurveda.
- Member, Scientific Advisory Group of the Central Council for Research in Ayurvedic Sciences, Govt. of India.

Projects (Major Grants / Collaborations)

Successfully completed following research projects by collaborating with various groups in House, Nationally and Internationally.

- Development of Novel Therapeutics based-upon Natural Products from Indian Medicinal Plants (2007-08)
Sponsor: Department of Scientific and Industrial Research Ministry of Science and Technology. New Delhi, India.
- Studies on naturally occurring compounds of potential use in Health and Agriculture (1998-2003; 2003-05)
Sponsor: Danish International Development Agency (DANIDA) in collaboration with University of Copenhagen (Denmark) and Chemistry Department, Royal Veterinary and Agricultural University, Copenhagen (Denmark).
- Enzymatic modification of materials for surface coating applications (2006-08)
Sponsor: PPG Industries, Inc. PA 15101, USA.
- Indigenous Design, Synthesis and Characterization of dialkyl and penta alkyl diamides as promising (alternate) extractants in fuel reprocessing and waste management (2000-2003; 2003-05)
Sponsor: Department of Atomic Energy (DAE), Bhabha Atomic Research Centre, Trombay, Mumbai (India).
- Asymmetric Synthesis of biologically & industrially important compounds using chemical methods and immobilized enzymes (1998-2001)
Sponsor: Department of Science and Technology (DST) and Russian Academy of Sciences (Moscow) under the Indo-Russian ILTP Programme in collaboration with AN Nesmeyanov Institute of Organo-Element Compounds and Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow (Russia).
- Stereospecific synthesis of Terbinafine and related allylamine compounds (1999-2000)
Sponsor: Cadila Pharmaceutical Limited, Ahmedabad, Gujarat (India).
- Synthesis of ECD and MRP-20 related compounds for development of ^{99m}Tc radiotracers for potential applications in nuclear medicine (1994-97)
Sponsor: Department of Atomic Energy (DAE), Bhabha Atomic Research Centre, Trombay, Mumbai (India).
- Synthetic studies on the construction of a novel bicyclic system present in several biologically active sesquiterpenes (1988-91)
Sponsor: The University Grants Commission, New Delhi (India).
- Biosystematic studies on selected tree species that yield nontimber forest products of industrial use (2001-2003; 2003-04)

Sponsor: Department of Biotechnology, New Delhi (India).

Other Details

- **Co-organized several National and International Conferences/Symposiums.**

(Signature of Faculty Member)

(Signature & Stamp
of Head of the Department)