Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in and cc: director@ducc.du.ac.in

Title	Prof.	First Name	Shive M. S.	Last Name	Chauhan	Photograph



Designation	Professor
Address (Campus)	Department of Chemistry, University of Delhi, Delhi-110007.
(Residence)	CC-94B, Shalimarbagh, New Delhi-110088.
Phone No Office	91-11-27666845
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Web-Page	-

Educational Qualifications

Degree	Institution	Year
Ph.D.	Banaras Hindu University	1977
PG	Banaras Hindu University	1972
UG	Banaras Hindu University	1970

Career Profile

Organisation / Institution	Designation	Duration	Role
IIT/Kanpur	Post-doctoral Fellow	Aug 1976-Dec 1977	Research
IIT/Kanpur	Research Associate	Jan 1978-Apr 1978	Research
IIT/Kanpur	Senior Post-doctoral Fellow	May 1978-Apr 1979	Research
University of Alberta	Post-doctoral Fellow	May 1979- Sep 1980	Research
University of Alberta	Post-doctoral Fellow	Oct 1980- Sep 1982	Research
IIT/Bombay	Lecturer (VFM)	Sep 1982-Sep 1984	Teaching and research
University of Delhi	Lecturer	Sep 1984-July 1986	Teaching and research
University of Delhi	Reader	July 1986-July 1996	Teaching and research
University of Delhi	Professor	July 1996-todate	Teaching and research

Administrative Assignments

1. **Acting Head of Department: time to time during 2007-2011**
2. **Head of Department (Aug 2011-todate)**

Areas of Interest / Specialization

Bioorganic chemistry, synthetic organic chemistry, natural products and non-covalent interactions in chemistry & biological fields and supramolecular chemistry.

Subjects Taught

1982-1984: Medicinal Chemistry and Bioorganic Chemistry
1984-present: Organic chemistry including stereochemistry, reaction mechanism, photochemistry, natural products, bio-molecules, medicinal chemistry, synthetic organic chemistry, chemistry of life processes, organic spectroscopy and supramolecular chemistry.

Research Guidance

1. ***Supervision of awarded Doctoral Thesis: 34***
2. ***Supervision of Doctoral Thesis, under progress: 8***
3. ***Supervision of awarded M.Phil dissertations: 32***
4. ***Supervision of M.Phil dissertations, under progress: Nil***
5. ***Supervision of M. Tech Students: 5***

Publications Profile

Books/Monographs (Authored/Edited)

Year of Publication	Title	Publisher	Co-Author
2004	Self-assembly of selected 5,10,15,20-tetraarylporphyrins	RBSA, Jaipur	-
2005	Bioactive compounds from Himalayan medicinal plants in Herbal Drug Research	Jaypee Brothers Medicinal Publishers(P) Ltd. New Delhi	Ambika, T. Bisht and P.P Singh

Research papers published in Refereed/Peer Reviewed Journals

Year of Publication	Title	Journal	Co-Author
2009	Oxidation of polycyclic aromatic hydrocarbons with hydrogen peroxide catalyzed by Iron(III)porphyrins	Catalysis Commun, Vol. 10, pp. 383-387	N. G. Giri
2009	Activity guided isolation of antioxidants from the leaves of Ricinus Communis L.	Food Chemistry, Vol. 114, pp. 1069-1072	P. P. Singh and Ambika
2009	Synthesis of unsymmetrical benzoporphyrazines in functional ionic liquids and formation of self-aggregates of	Tetrahedron, Vol. 65, pp. 2518-2524	P. Kumari

	zinc(II)pyridine[3,4]tribenzoporphyrazines in solutions		
2009	1-Arylazo-5,5-dimethyl dipyrromethanes: Versatile chromogenic probes for anions	Sensors & Actuators: B.Chemical Vol. 141, pp. 116-123	T. Bisht and B. Garg
2009	Synthesis and anion binding of 2-arylazo-mesooctamethylcalix[4]pyrroles.	Supramolecular Chem. Vol. 21, pp. 394-400	B. Garg and T. Bisht
2009	Efficient cobalt(II) phthalocyanines catalyzed reduction of flavones with sodium borohydride	Chem. Commun. Vol. 42, pp. 6397-6399	P. Kumari and Poonam
2009	Spectroscopic and spectrometric studies of anion recognition with calix[4]pyrroles in different reaction Conditions	Spectrochim. Acta-Part A: Mol. Biomol. Spectroscopy. Vol. 74, pp. 297-304	N. G. Giri
2010	Electrostatic interaction between cationic calix[4]pyrroles and anionic porphyrins in water	J. Incl. Phen. Macrocyc. Chem. Vol. 67, pp. 241-246	B. Garg and T. Bisht
2010	Ionic interactions of anionic thiacalix[4]arenes with cationic porphyrins	Arkivoc, pp. 161-178	B. Garg and T. Bisht
2010	Synthesis and anion binding properties of novel 3,12- and 3,7-bis(4'-nitrophenyl)azo-calix[4]pyrrole receptors	New J. Chem. Vol 34, pp. 1251-1254	B. Garg and T. Bisht
2011	Meso-functional calix[4]pyrrole: A solution phase study of anion directed self assembly	J. Incl. Phenom. Macrocycl. Chem. Vol. 70, pp. 249-255	B. Garg and T. Bisht
2011	Isolation , synthesis and biomimetic reactions of metalloporphyrinoids in ionic liquids	Curr. Org. Synth. Vol. 8 pp. 393-437	P. Kumari, N. Sinha and P. Chauhan
2011	Use of graphite oxide and graphene oxide as catalysts in the synthesis of dipyrromethane and calix[4]pyrrole	Molecules Vol. 16 pp. 7256-7266	S. Mishra
2011	Formation of hydridocobalt(III) phthalocyanine by reaction of cobalt(II) phthalocyanine with sodium borohydride and its reaction with antioxidant isoflavones	New J. Chem. Vol. 35 pp. 2639-2646	Poonam, P. Kumari and R. Nagpal
2011	Reductive dechlorination of atrazine using sodium borohydride catalyzed by cobalt(II) phthalocyanine	Tet. Lett. Vol. 52 pp. 7083-7086	Poonam, P. Kumari amd S. Ahmad
2012	Chemoselective epoxidation of electron rich and electron defficient olefins catalyzed by meso-tetraarylporphyrin iron(III) chlorides in imidazolium ionic liquids	New J. Chem. Vol. 36 pp. 650-655	P. P. Singh and Ambika
2012	2,2'-Diaminoazo-benzene- a potential scaffold for the synthesis of bisureas and thioureas: Solution phase anion sensing and binding studies	Sensors and Actuators B Vol. 168 pp. 318-328	B. Garg and T. Bisht
2012	Biomimetic oxidation of guggulsterone with hydrogen peroxide catalyzed by	Catal. Comm. doi:10.1016/j.catcom.20	A. Singhal

	iron(III)porphyrins in ionic liquid	12.04.010	
2012	Efficient oxidation of polycyclic aromatic hydrocarbons with H_2O_2 catalyzed by 5,10,15-triarylcorrolatoiron (IV) chloride in ionic liquids	Catal. Comm. Vol. 29 pp. 15-20	P. Kumari, R. Nagpal
2012	1-butyl-3-methyl imidazolium acetate catalyzed synthesis of N-substituted-5-arylidene-rhodanines	J. Heterocycl. Chem. http://dx.doi.org./10.1002/Jhet.1904	S. J. Singh, S. Ahmed
2012	Role of hydroxyl functionalized ionic liquids in oxygenation and oxidation of phenols with H_2O_2 catalyzed by iron (III) porphyrins	Curr. Org. Chem. Vol. 16 pp. 2089-3001	S. Ahmad, K. K. Yadav
2013	Potassium carbonate catalyzed one pot four-component synthesis of rhodanine derivatives	Tetrahedron Lett. Vol. 54 pp. 2484-2488	S. J. Singh

Conference Organization/ Presentations (in the last three years)

Conference presentations:

- Chauhan, S.M.S. 2009. Non-covalent synthesis and functional porphyrins and related compounds. 109th birth anniversary celebrations at National institute of Pharmaceutical Epucation and Research, Hyderabad, India.
- Chauhan, S.M.S. 2009. Non-covalent synthesis with functional porphyrins, phthalocyanines and related compounds. Indo-German symposium on supramolecular chemistry, University of Delhi, New Delhi.
- Singhal, A., Chauhan, P. and Chauhan, S. M. S. 2009, Selective synthesis of metallocalix[4]phyrins in the presence of template and their spectral characterization. ISCBC-2009, University of Delhi, New Delhi.
- Sinha, N. and Chauhan, S. M. S. 2009, Double rosette formation by 5,5-dialkylbarbiturates and calix[4]arenes appended porphyrins. ISCBC-2009, University of Delhi, New Delhi.
- Poonam and Chauhan, S. M. S. 2009, synthesis of subphthalocyanines as photosensitizers for photodynamic therapy. ISCBC-2009, University of Delhi, New Delhi.
- Rawat, A. K. and Chauhan, S. M. S. 2009, An attempt towards the synthesis of porphobillinogen starting from ketene-diacetals. ISCBC-2009, ISCBC-2009, University of Delhi, New Delhi.
- Garg, B.; Bisht, T. and Chauhan, S. M. S. 2009, Synthesis of novel disubstituted azocalix[4]pyrroles and their anion binding. Indo-German symposium on supramolecular Chemistry, ISCBC-2009, University of Delhi, New Delhi.
- Singhal, A., Ahmad, S. and Chauhan, S. M. S., hydrogen peroxide and iron (III) porphyrins in domino product formation and polymerization. School and Symposium on advanced biological inorganic chemistry (SaBIC-2009), Nov. 2-7,2009.
- Chauhan, S. M. S., Non covalent synthesis from functional porphyrins, calix[4]pyrroles and related macrocycles. National seminar on confluence of supramolecular chemistry and nanosciences. Jan 22-23,2010.
- Chauhan, S. M. S., Supramolecular capsules from functional porphyrins & related macrocycles. 14th International conference Jan 15-18, 2010.
- Chauhan, S. M. S., Chemical synthesis of metalloporphyrins and related macrocycles and their biomimetic reactions in ionic liquids, National conference of green and sustainable chemistry, BITS Pilani, Feb, 19-21, 2010.
- Kumari, P.; Poonam and Chauhan, S. M. S., Efficient reduction of flavanoids with sodium borohydride catalyzed by cobalt phthalocyanines, National conference of green and sustainable chemistry, BITS Pilani, Feb, 19-21, 2010.
- Poonam, Kumari, P., Chauzar, M. Chauhan, S. M. S. The reduction of biologically active isoflavaones with sodium borohydride catalyzed by cobalt phthalocyanines, Trends in Drug Discovery and

Development, University of Delhi, Jan, 5-8, 2010.

- Sinha, N., Gautam, R., Chauhan, P. S., Chauhan, S. M. S. Formation of hetero-hydrogen bonded capsules with functional aryl extended calyx[4]pyrroles, Trends in Drug Discovery and Development, University of Delhi, Jan, 5-8, 2010.
- Jaina, S. and Chauhan, S. M. S. Self-assembly of dimeric tetraurea calyx[4]pyrrole capsules, Trends in Drug Discovery and Development, University of Delhi, Jan, 5-8, 2010.
- Ahmad, S., Singhal, A. and Chauhan, S. M. S. Iron(III)porphyrin catalyzed polymerization of various aniline derivatives in ionic liquids. Trends in Drug Discovery and Development, University of Delhi, Jan, 5-8, 2010.
- Sinha, N., Tanwar, P. and Chauhan, S. M. S. Anion template in the synthesis of calix[4]pyrroles, 4th Indo-Italian seminar on green chemistry and natural products, University of Delhi, Nov, 17, 2010.
- Singh, S. J. and Chauhan, S. M. S. An efficient synthesis of 2,3,4-trisubstituted pyrroles. 4th Indo-Italian seminar on green chemistry and natural products, University of Delhi, Nov, 17, 2010.
- Ahmad, S., Singhal, A. and Chauhan, S. M. S. Polymerization of guaiacol in ionic liquid using lipid soluble metalloporphyrins. 4th Indo-Italian seminar on green chemistry and natural products, University of Delhi, Nov, 17, 2010.
- Nagpal, R., Poonam, Yadav, K. K. and Chauhan, S. M. S. Green synthesis of potential photonic and optoelectronic porphyrazines and its interaction with transition metal ions. 4th Indo-Italian seminar on green chemistry and natural products, University of Delhi, Nov, 17, 2010.
- Mishra, S., Rawat, A. K., Sharma, V., Debsmita and Chauhan, S. M. S. Covalent conjugates of porphyrin-carbon nanostructures. 4th Indo-Italian seminar on green chemistry and natural products, University of Delhi, Nov, 17, 2010.
- Mishra, S., Rawat, A. K. and Chauhan, S. M. S. Supramolecular interactions of porphyrin-carbon nanostructures. Recent advances in pure and applied chemistry, ACBR, University of Delhi, 28th-29th Dec, 2010.
- Mishra, S. and Chauhan, S. M. S. Conjugates of porphyrinoids-carbon nanostructures, 13th CRSI-5th RSC National Symposium, NISER, Bhubaneswar, 6-8 Feb, 2011.
- Chauhan, S.M.S. 2011 invited lecture on "Organocatalysis with porphyrinoids in ionic liquids" in International Conference on Green Chemistry, Jaipur, Dec 7-9
- Chauhan, S.M.S. 2011 invited lecture on "Organocatalysis with porphyrinoids in ionic liquids" in International Conference on Green Chemistry, Jaipur, Dec 7-9
- Singhal, A. and Chauhan, S.M.S. 2011 oral presentation on "metalloporphyrin catalyzed copolymerization of selected monomers with monooxygen donors in ionic liquids" in International Conference on Green Chemistry, Jaipur, Dec 7-9.
- Rawat, A. K., Bhattacharya, S. and Chauhan, S.M.S. 2011 "Interaction of toxic metals with calix[2]thieno[2]pyrroles and releted macrocycles" in 3rd International Conference on Heterocyclic Chemistry, Jaipur, Dec 10-13.
- Sinha, N. and Chauhan S. M. S. 2011 "Synthesis of calix[4]pyrroles and its higher analogues in task specific ionic liquids" in 3rd International Conference on Heterocyclic Chemistry, Jaipur, Dec 10-13.
- Kumari, P., Nagpal, R. and Chauhan, S.M.S. 2011 "Efficient oxidation of polycyclic aromatic hydrocarbons with hydrogen peroxide catalyzed by 5,10,15-triarylcorrolatoiron(iv) chloride in ionic liquids" in 3rd International Conference on Heterocyclic Chemistry, Jaipur, Dec 10-13.
- Gautam, R., Singhal, A. and Chauhan, S.M.S. 2011 "Amberlyst-15 catalyzed synthesis of calix[4]phyrins and related compounds Using dipyrromethanes as precursors and their noncovalent interactions" in 3rd International Conference on Heterocyclic Chemistry, Jaipur, Dec 10-13.
- Mishra, S.; Chauhan, S. M. S.; "Synthesis of Porphyrins and expanded porphyrins catalyzed by sulfonated graphene oxide" in National conference on Carbon materials 2012 (CCM12), Indian Carbon Society, Mumbai, Nov 1st -3rd, 2012.
- Rawat, A. K.; Bhattacharya, S.; Chauhan, S. M. S.; "Synthesis of 21-thia-5,10,15,20-tetraarylporphyrins from 5-aryldipyrromethanes and 2,5-bis-(arylhydroxymethyl)thiophene in acidic ionic liquids" in Indo-German workshop on new perspectives for nano-carriers in biomedical applications, University of Delhi, Jan 14, 2013.
- Gautam, R.; Chauhan, S. M. S.; "Surfactant assisted self assembly of unsymmetrical porphyrin containing long chain into nanocube and nanorod" in Indo-German workshop on new perspectives for nano-carriers in biomedical applications, University of Delhi, Jan 14, 2013.
- Yadav, K. K.; Ahmad, S.; Chauhan, P.; Chauhan, S. M. S.; "Highly efficient cobalt (II)phthalocyanine-catalyzed conversion of hexoses to 5-hydroxymethyl furfural in ionic liquids" in Indo-German workshop on new perspectives for nano-carriers in biomedical applications, University of Delhi, Jan 14, 2013.
- Rawat, A. K.; Bhattacharya, S.; Chauhan, S. M. S.; "Synthesis of oxoporphyrinogen, N-alkylated oxoporphyrinogens and their anionic interactions" in Lecture workshop/conference on Emerging

trends in development of drugs and devices, Jan 21st -23rd 2013.

- Poonam; Nagpal, R.; Chauhan, S. M. S.; "Efficient synthesis of substituted metalloporphyrazines, as photodynamic agents and its interaction with transition metal ions" in Lecture workshop/conference on Emerging trends in development of drugs and devices, Jan 21st -23rd 2013.
- Nagpal, R.; Chauhan, S. M. S.; "Synthesis of selected functional hexabenzocoronenes" in Lecture workshop/conference on Emerging trends in development of drugs and devices, Jan 21st -23rd 2013.
- Mishra, S.; Arora, S.; Chauhan, S. M. S.; "Selected organic transformations by chemically modified graphenes" in 7th RSC-15th CRSI National Symposium in Chemistry, BHU, Varanasi, Feb 1-3, 2013.
- Gautam, R.; Chauhan, S. M. S.; "Surfactant assisted preparation and structural control of metal coordination-assisted supramolecular architectures of porphyrins" in National seminar in chemistry in interdisciplinary applications, H. R. College, University of Delhi, March 19, 2013.
- Bhattacharya, S.; Rawat, A. K.; Chauhan, S. M. S.; "Acidic ionic liquids catalyzed synthesis of 21-thia-5,10,15,20-tetraarylporphyrins from dipyrromethanes and 2,5-bis-(arylhydroxymethyl)thiophene" in National seminar in chemistry in interdisciplinary applications, H. R. College, University of Delhi, March 19, 2013.
- Yadav, K. K.; Ahmad, S.; Chauhan, P.; Chauhan, S. M. S.; "Highly efficient cobalt (II)phthalocyanine-catalyzed conversion of hexoses to 5-hydroxymethyl furfural in ionic liquids" in National seminar in chemistry in interdisciplinary applications, H. R. College, University of Delhi, March 19, 2013.

Research Projects (Major Grants/Research Collaboration)

- Principal Investigator, University of Delhi project Titled "Chemical studies of fullerene-porphyrin, fullerene-phthalocyanines and related compounds", 2010.
- Principal Investigator, DST project Titled "Biomimetic studies of porphyrinogen and their non-covalent interaction in the biosynthesis of heme and related life pigments", 2009-todate.
- Principal Investigator, DST project Titled "Synthesis of functional calix[4]pyrrole and related compounds and other applications in anion binding, self-assembly and catalysis", 2005-2008.
- Principal Investigator, CSIR project Titled "Synthesis of covalently linked multiporphyrinic arrays as models for light harvesting systems and development of other newer materials", 2005-2008.

Awards and Distinctions

- Basudev Banarjee Memorial Award for 1993 by Indian Chemical Society.
- Prof. R.C.Shah Memorial Award for 1996-97 by Indian Science Congress Association.
- Bronze Medal for 2003-2004 by Chemical Research Society of India.
- Dr. W. U. Malik Memorial Award for 2010 by Indian Council of Chemists.
- Shiksha Ratan Puraskar by India International Friendship Society in 2011.

Association With Professional Bodies

Editing: Nil

Reviewing: Research articles from different chemical journals
Research proposals of different funding agencies such as CSIR, DST and DBT

Advisory Committes: *Various universities and CSIR.*

Committees and Boards: Executive member of Editorial Committee of The Wealth of India, National Institute of Science Communication and Information Resources, CSIR

Life memberships of the following Professional Academic Societies:

- Indian Science Association (LM 1339)

- **Indian Society of Radiation and Photochemical Sciences (LM 05)**
- **Indian Association for Cancer Research Indian Council of Chemists**
- **Society for Plant Biochemistry and Biotechnology (L 98)**
- **Indian Society of Analytical Scientists (LM 609)**
- **Society of Biological Chemists**
- **Indian Society of Chemists and Biologist (FN 66)**
- **Indian Society of Bioorganic Chemists**
- **Indian Chemical Society (LM 3296)**

Office Bearer: **Nil**

Other Activities

- **Delivered invited lectures at different Universities, Research Institutes, Symposia and Seminars.**
- **Executive member of Indian Society of Chemists and Biologists.**

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.