


# Curriculum Vitae

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## SKILLSETS

Good Academic, Industrial and Administrative Experience.  
 Good Teaching & Communication Skills.  
 Excellent personality, as well as, command on spoken & written English.  
 Rich expertise in applied as well as basic Research - at Industrial & Academic levels (Expertise and Experience in Medicinal Chemistry, Drug Design, New Drug Discovery and Development, Chemical Process Development, IP generation, Library Synthesis, Green Chemistry, Custom Synthesis).  
 Personal attributes – Exemplary leadership quality, bearing responsibility, teamwork, positive attitude, self-belief and confidence, determined efforts, undaunted perseverance and quest for quality & excellence and timely guaranteed results.

## QUALIFICATIONS

- Developed Sinhgad College of Pharmacy, Pune, into a premier pharmacy educational institute in Pune, as well as, state of Maharashtra, India.
- Total 70 Research publications & Reviews in leading International Scientific Journals to credit. Besides, 2 Textbooks and 2 patents in name, several major Research Projects (UGC & AICTE, Pune University: worth Rs. 78 lacs) received & successfully implemented so far.
- Recognized P. G. Research guide (for M. Pharm. & Ph.D.) of 6 Universities. Teaching & Research Guidance experience in Medicinal Chemistry, NDDR, and Drug Design mainly at Post Graduate levels at P.G. Research Centres of Reputed Colleges.
- Reviewer for many national and international journals and Ph.D. theses.
- Acted as Dean Faculty of Pharmacy, Univ. of Pune, Presently member-Academic Council, Faculty, BOS as well as BCUD & Academic Subcommittees, Univ. of Pune.
- Strong productive background in Initiation & management of Research & Development work, in the areas of New Drug Discovery Research (NDDR), as well as, Chemical Process Development, Custom Synthesis & Library Synthesis.
- Areas of research include, N.D.D.R. involving Rational Drug design, synthesis and evaluation of novel Antimalarial, Antihyperlipidemic, Antihypertensive, Anticancer and Antiulcer agents. Also have considerable work in the field of Green Chemistry involving Microwave Irradiation (MWI) based Chemical Synthesis & Phase Transfer Catalysis (PTC).
- Industrial experience at Senior Levels (Director, Vice President & Sr. Scientist); in Organic Synthesis, Drug Design & Medicinal chemistry, as well as, Process-development and scale-ups for API's, drug intermediates, specialty fine chemicals and catalysts at laboratory, pilot plant, as well as, plant levels.
- Quoted in Marcus Who's Who-2008.

## EDUCATION

<b>Ph.D.</b>	1991	Pharmaceutical Chemistry (Synthetic Medicinal)	Gujarat University, Ahmedabad	-
<b>Ph.D. Thesis:</b> "Synthesis of 2,4-Diaminopyrimidine derivatives as Potential Antimalarial Agents"				
<b>M. Pharm.</b>	1982	Pharmaceutical Chemistry (Synthetic Medicinal)	Gujarat University, Ahmedabad	First Class (First Rank in Pharm. Chem.)
<b>B. Pharm.</b>	1980	Pharmacy	Bombay University, Bombay	First Class
<b>Fellow</b>	1992	FIC	Institution of Chemists, Kolkata	-
<b>Certificate Course</b>	1997	R&D Management	Administrative Staff College of India (ASCI), Hyderabad	-

**PROFESSIONAL EXPERIENCE**

<b>Professor (Research)</b>	Sinhgad Institute of Pharmaceutical Sciences, Lonavala, Pune.	Since, 8 <sup>th</sup> Mar 2012.	To strengthen and Improve the research and academic activities of the institute and ensure its preparedness for international & industrial collaborations. <i>(The Engineering faculty of the society already has regular tie up with European Commission's ERASMUS MUNDUS). Pharmacy faculty to be geared up for the same.</i>
<b>Principal &amp; Professor (Med. Chem.)</b>	Sinhgad College of Pharmacy, Pune.	1 <sup>st</sup> Apr 2001 – 30 <sup>th</sup> Aug 2003 & 1 <sup>st</sup> Aug 2004 till date. (As Principal Since 1 <sup>st</sup> Aug 2004)	As Principal: Developed the college into a premier acclaimed institute from UG to PG & Ph.D. levels: Status, reput, faculty & infrastructure wise in the state & the country. As Professor: Developed Drug Design & Synthesis facilities, Developed novel NCE series; Got many international & national publications to credit & filed patents.
<b>Professor (Med. Chem.)</b>	Bharati Vidyapeeth's Poona College of Pharmacy, Pune.	1 <sup>st</sup> Sep 2003 – 31 <sup>st</sup> Jul 2004.	PG Research & Teaching
<b>Vice President – (R&amp;D)</b>	Dishman Pharmaceuticals & Chemicals Ltd., Ahmedabad.	1 <sup>st</sup> Apr 1997 – 31 <sup>st</sup> Dec 1999.	Chemical Process Development of several API's, Intermediates & Specialty Fine Chemicals from Lab-Pilot plant-Plant scales up to commercial scales.  <b>RECIPIENT OF PERFORMER OF THE YEAR AWARD</b>
	as well as, Adimans Technologies Pvt. Ltd., A DSIR recognized commercial R & D concern of M/s Dishman Pharma-Chem. Ltd., Ahmedabad.	Sep 1998 – 31 <sup>st</sup> Dec 1999.	Synthesis of impurity standards, Custom Synthesis, Development of non-patent infringing eco-friendly chemical processes of API's / Intermediates
<b>Director</b>	Chemtek Laboratories: A Chemical C.R.O.at Pune.	31 <sup>st</sup> Mar 2001 – Jan 2007.	Mainly involved in focused as well diverse libraries of NCE's for commercial sale. Synthesis of impurity standards, Custom Synthesis, Chemical Process Development.
<b>Director</b>	ChemTree Pvt. Ltd. : A Chemical C.R.O.at Pune.	1 <sup>st</sup> Jan 2000 – 30 <sup>th</sup> Mar 2001.	Design, synthesis & evaluation of series of novel NCE's
<b>Incharge – Chemical Division</b>	Eskay Industries, Pvt. Ltd., Chinchwad, Pune.	Jan – Mar, 1997.	Production, Trouble Shooting & R&D of API's/ Intermediates.
<b>Sr. Scientist – (R&amp;D)</b>	Core Healthcare Ltd., Ahmedabad.	1 <sup>st</sup> Aug, 1995 – Dec.1996.	Rational Drug Design –CADD & QSAR of NCE's & their synthesis & biological evaluation.
<b>Asstt. Professor (PG-Reserch Center)</b>	L. M. College of Pharmacy, Ahmedabad.	Jan. 1994 – July 1995	
<b>Lecturer &amp; Univ. Recognized Post-Graduate Teacher</b>	L. M. College of Pharmacy, Ahmedabad.	1984-1993	
<b>Researcher for Drug Projects</b>	Consumer Education & Research Centre, Ahmedabad	1983-1984	Survey & evaluation of marketed drug products
<b>F.D.A. Approved Mfg. Chemist</b>	Mini Pharma Labs, Ahmedabad	1982-1983	Manufacture of Pharmaceutical Formulations
<b>Trainee</b>	Nicholas Labs, Bombay	1979	

## Scientific & Research Activity

In spite of considerable administrative workload, a strong urge for research has kept self actively engaged with research and thus, till date associated with research laboratory from conceptualization to implementation of research projects, even involving bench work. This is evident from the list of publications (Annexure) as well as on-going research projects detailed below. Many students and PG guides, even from other institutions, seek regular advice and guidance.

### 1. MEDICINAL CHEMISTRY:

Projects involving rational design, synthesis, biological screening and iterative lead optimizations of NCE's to potential bioactive molecules. The Drug Designing techniques include computer-aided calculations and simulations of energy minimized molecules including analog as well a *de novo* drug design. QSAR and 3D QSAR involving *in silico* as well as practical determinations of 2D and 3D descriptors of physiochemical properties of molecules and their correlations with the biological activity.

Also undertaken are the syntheses of screening libraries of drug-like compounds based on pharmaceutically suitable and relevant scaffolds that have the considerations of diversity and drug likeness. All compounds are based on Lipinski's rule of 5.

Presently working in the following therapeutic areas -

- a. **Antihyperlipaemics:** Working for almost two decades. Designed, synthesized & evaluated several interesting molecules lowering plasma total cholesterol, VLDL, Tg & increasing HDL levels in laboratory animals significantly superior to standard gemfibrozil and comparable to ezetimibe—Patent filing in process. Several Quality reviews & publications on the subject. Also received funding up to Rs. 12 lacs till date. One Ph.D. & 12 M. Pharm.'s guided on this subject.
- b. **Anticancer – TKR inhibitors approach:** A focused library of many interesting gefitinib analogs has been synthesized through novel one pot rapid MWI based methodology developed in-house. This work has reached advanced stages like evaluation of around 70 newly synthesized compounds on five different cancer cell lines, computing their PIC<sub>50</sub> values, some have exhibited very promising anticancer & antiproliferative potential, This work has led to 1 Patent, & several quality publications on the subject. Also received funding up to Rs. 47 lacs till date. One Ph.D. in progress & 5 M. Pharm.'s. guided on this subject.
- c. **Proton Pump Inhibitors:** Designed, synthesized & evaluated a series of less basic PSMB analogs to obtain novel reversible PPI's devoid of the side effects of currently used PPI's in the therapy. Patent filing in process. Several Quality reviews & publications on the subject (one best paper award-national level). Also received funding up to Rs. 5 lacs till date. One Ph.D. & 6 M. Pharm.'s guided on this subject.
- d. **Antihypertensives:  $\alpha_1$ -Adrenoreceptor antagonists:** This involves work on novel Prazosin analogues selectively acting as antagonists of  $\alpha_1$  adrenoreceptor subtypes and also use of techniques of QSAR, CADD and iterative synthesis and biological evaluation towards lead optimization. Also Green chemical process development of prazosin and its analog completed. This work has led to 1 Review & several quality publications on the subject. Also received funding up to Rs. 17 lacs till date. One Ph.D. in progress & 4 M. Pharm.'s guided on this subject.
- e. **Antiinfectives: Antimicrobials and Antifungals:** This work involves identifying targets like important enzymes etc to be blocked for controlling the growth of resistant pathogenic strains of bacteria and fungi. Designing newer scaffolds of NCE's to attack the resistant pathogenic strains of microorganisms through docking studies as well as lead optimizations through 3D QSAR. Some very active leads with mMIC values better than existing antibacterial and antifungal drugs have been identified. This work has led to 1 Patent & several quality publications on the subject. Also, 5 M.Pharm.'s. guided on this subject.

### 2. SYNTHETIC CHEMISTRY:

A variety of reactions in chemistry at laboratory, pilot plant as well as plant scales. These include: **Heterocyclizations** to various nuclei like thiophenes, furans, pyrazoles, oxazoles, isooxazoles, thioazole, pyrimidines, condensed pyrimidines namely quinazolines, purines, pteridines, thienopyrimidines, coumarins, azepines, oxazepines, thiazepines, piperazines, etc.

**Cyanations** through nucleophilic displacement of halides, as well as, dehydrations of amides or oximes  
**Bocccination** and **Fmocccination** of amino group especially with amino acids and amino acid esters including heterocyclic derivatives.

**Halogenations:** Mainly ring, as well as, side chain bromination, chlorination.

**FC acylations and alkylations** & a variety of name reactions.

**Oxidation and reduction** under various conditions.

### 3. GREEN CHEMISTRY:

- a. **Phase Transfer Catalysis** can suitably modify and shorten existing synthetic routes to more ecofriendly, mild and economical reactions with lesser steps and executable to higher scales for many API's, Drug intermediates and Fine chemicals.
- b. **Microwave Irradiation (MWI)** technique as an eco-friendly and rapid alternative to many reactions and synthesis. Other techniques involve use of ionic liquids, sonochemistry and water as reaction solvent. Has been successful in many reactions like displacement, cyclization and heterocyclization, oxidations and reductions as well as condensations) Have undertaken custom synthesis especially for Sigma-Aldrich, Fluka etc., for Crown ethers (18-crown-6, Dibenzo 18-crown-6, 15-Crown-5 etc.); Nitriles, Thiocyanates and Isothiocyanates.; Monosubstituted piperazines; Amidines and many more.as per client's requirement on kilogram scales. (List can be provided).

**A Minor Research Project funded by University of Pune, "Microwave Assisted High throughput Synthesis of 2,4-Diamino and 4-aminothieno[2,3-d]pyrimidines" – Rs. 2 lacs, (2007-09)**

### 4. DRUG DESIGN:

QSAR Techniques namely, Hansch's LFER model, Free & Wilson analysis, as well as Cluster, Discriminant & Principal Component Analysis & 3-D QSAR: TSAR, COMFA & COMISIA.-Tripos, PHASE & GLIDE-Schrodinger. Hands on experience & training on Silicon Graphics Workstations, Linux based PC-Servers for Biosym. & Accelrys Modules; INSIGHT, DISCOVER, CERIOUS-II, LUDI & APEX-3D, HOMOLOG, AFFINITY etc. for molecular modeling studies and ACCORD for EXCEL & TOPKAT for ADME-Tox.

### 5.CHARACTERIZATION:

Proficient in using various spectral techniques for chemical structure elucidation of new organic molecules, viz; IR, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR, Mass spectroscopic and elemental analysis, etc.

### 6. PATENT AND LITERATURE ANALYSIS:

Well versed with various types and forms of chemical databases. Have been involved in the entire process of patent drafting, filing and responding to the queries from various patent offices.

## CONTRIBUTION TO ACADEMICS

### Under leadership and concerted efforts Development of Sinhgad College of Pharmacy (SCOP), Pune as one of the Premier Institutes in the region

- The college has received recognition as one of the leading Pharmacy colleges of Pune, having B. Pharm., M.Pharm., & Ph.D., courses, with excellent academic results and research environment and 100% admissions record till date.
- Successfully obtained, research grants worth Rs.93 lacs from various funding agencies till date. The faculty and students till date have more than 100 publications and 4 patents to their credit, as well as, presented more than 250 papers in various conferences topping in Pune region.
- The college has organized 25 seminars (National /State & District levels) & 3 Faculty Development Programs (AICTE), till date.
- The students have shone in many curricular, extracurricular and cultural competitions and have brought laurels and awards to the college.
- Additional and remarkable activities, include regular yearly publications of top quality College magazine 'SPANDAN: *The Vital Beat*', and Alumni Table Top Calendar – *SCOPIAN*, and Alumni Bulletin, which are appreciated by one and all.
- The infrastructure has been modernized and much new equipment is added every year. The college library has become full-fledged with >10000 books & more than 150 national and international journals being subscribed (including online/e-journals), along with a rich collection of back volumes of journals and abstracts. The college has a beautiful Pharma Museum which is unique presentation of the History as well as 5 different academic/industrial disciplines of Pharmacy, Full-fledged medicinal plant garden, AC Seminar Hall etc.
- The college consistently and successfully received approvals from University of Pune, PCI & AICTE, and is geared up for the Inspection for NBA (accreditation), anticipated in few months. This year the college received approval from PCI for 5 years *i.e.*, from 2011-12 till 2015-16.

### Attempts for Quality Assurance of Pharma Education

- **Interaction with the University:** Actively associated with University of Pune as member Board of Studies, Faculty, Academic Council, Member Academic Subcommittee as well as BCUD Subcommittee, presently. Also was Dean of the Faculty of Pharmacy in 2010-11. A regular, Chairman or member or VC nominee – Subject Expert, Examiner; on LIC's, Staff Selection Committees, Research & Development, Examinations as well as Syllabus framing committees.

- **With Pharmacy Council of India:** A regular PCI inspector for past 8 years and on an average inspect 3-4 colleges annually in various parts of the country.
- **With Industry and Research Institutions:** Organized successfully, the first ever DST sponsored 3 days state level Pharma-Industry-Academia interaction in 2010-11, with the participation and interaction of 15 industries and 25 academic institutions on one platform. This culminated in fruitful collaborations. SCOP has successfully entered in MOU's for collaborative research, with Emcure Ltd., ACTREC, Specs BV (Netherlands), Aston Univ.(UK), Mallindroct (USA), etc. to name a few.
- **As a Resource Person:** Regularly invited to speak on a wide variety of subjects, Academic, Research, Technical etc. due to excellent oratory and presentation skills. (Till date ~ 200 presentations and lectures given at various national / international conferences, seminars and workshops-list enclosed in the end).

#### **Quality Assurance of Pharma. Education: Adoption of novel techniques**

Involved in curricula & syllabi framing at University level. Always focused on having it Innovative and creative, leading to knowledge, skill and attitude development, as well as, demand and job oriented, student-oriented, Involvement of Industry in the academic bodies responsible for framing curriculum. Having due consideration for national, societal and domestic needs and requirements, ethical values, science & technology-based & due consideration to new technology advancements and international standards. Timely revisions, keeping the Industrial scenario in mind.

Novel Teaching Methodologies involving more student centric active learning process, Problem-based learning (PBL), Case-based learning, Use of Simulation techniques & Service learning. Involving more interaction between industry and academia, with emphasis on Industrial Training for both the faculty and students. Refresher courses in the form of seminars symposia for expanding knowledge of Technical Education in different disciplines. Teaching methodologies adopted leading to increase in the interaction between the teachers and the students.

Thus, overall emphasis based on Knowledge, Skills & Behavior/ Attitudes/ Professionalism development, of the students making them industry and profession ready.

#### **AFFILIATION & PROFESSIONAL MEMBERSHIPS**

- |     |                          |   |   |
|-----|--------------------------|---|---|
| 1.  | Member                   | : | American Chemical Society (ACS).  |
| 2.  | Fellow Member            | : | The Institute of Chemists, India (F.I.C.).  |
| 3.  | Ex I/C Dean              | : | Faculty of Pharmacy, Pune University.   |
| 4.  | Member                   | : | Academic Council Pune University.   |
| 5.  | Member                   | : | Faculty of Pharmacy, Pune University.   |
| 6.  | Member                   | : | Board of Studies – Pharmaceutical Chemistry, Pune University.                                 |
| 7.  | Life Member              | : | The Indian Pharmaceutical Association (I.P.A).  |
| 8.  | Jt. Secretary            | : | L.O.C. 54th I.P.C-2002, Pune. & Secretary of Pune, I.P.A. Branch.                             |
| 9.  | Life Member              | : | The Indian Society of Technical Education (I.S.T.E.).   |
| 10. | Life Member              | : | The Administrative Staff College of India (A.S.C.I.).   |
| 11. | Member of Advisory Board | : | South Asian Advisory Panel-Pharmacy - Wolters Kluwer Health/Lippincott<br>Williams & Wilkins. |

#### **HONOURS & AWARDS**

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|-----|--|---|---------|
| 1.  | High School Scholarship (4 <sup>th</sup> Rank in District)                                 | - | 1971-75 |
| 2.  | N.C.C Certificate – 'A' Exam   | - | 1974    |
| 3.  | University Grants Commission (UGC) Fellowship (JRF) for M. Pharm.                          | - | 1980-82 |
| 4.  | Indian Council of Medical Research (ICMR) Fellowship (JRF) for Ph.D.                       | - | 1983-84 |
| 5.  | Best Research Paper from Gujarat State – By Indian Pharmacological Society                 | - | 1991    |
| 6.  | Best Research Paper from Gujarat State – By Indian Pharmacological Society                 | - | 1997    |
| 7.  | Received the "Best Teacher of the Year 2004" award from I.P.C. Trust, Pune                 | - | 2005    |
| 8.  | Best Scientific Poster Presentation – Medicinal Chem. 57 <sup>th</sup> , IPC, Hyderabad    | - | 2005    |
| 9.  | Best Scientific Oral Presentation – Medicinal Chem. 58 <sup>th</sup> , IPC, Mumbai         | - | 2006    |
| 10. | MPA Award for contribution to Pharmacy Profession  | - | 2009    |
| 11. | Best Research Project of the year – Innovation 2008, University of Pune                    | - | 2009    |
| 12. | The Indian Drugs Best Review Paper Award   | - | 2009    |
| 13. | The P.D. Sethi Annual Award – For Best Research Paper In Pharmaceutical Analysis           | - | 2009    |
| 14. | The Indian J. Pharm. Edu. & Res. Award For Best Research Paper In Pharmaceutical Chemistry | - | 2009    |
| 15. | Best Research Project in Pharmacy & Medicine at Avishkar by University of Pune             | - | 2010    |

## PROFESSIONAL EXPERIENCE & TRAINING

<b>Experience</b>	:	27 years (including 22 years of Academic experience)		
<b>Publications</b>	:	More than 70	Review articles	14
			International research papers	33
			National research papers	24
<b>Books</b>	:	03		
<b>Patents</b>	:	05	Filed	02
			In-process	03
<b>Lectures delivered</b>	:	40		
<b>Presentations</b>	:	More than 100 (National & International)		
<b>No. of students guided</b>	:	36	Ph.D.	02
			M. Pharm.	34
<b>No. of students registered</b>	:	14	Ph.D.	06
			M. Pharm.	08

## Ph.D. REFRESHIP IN FEW UNIVERSITIES

1. Banasthali University, Tonk, Rajasthan.
2. Bharati Vidyapeeth, Pune, Maharashtra.
3. Saurashtra University, Rajkot, Gujarat.
4. Jawaharlal Nehru Technological University Hyderabad, Hyderabad, Andhra Pradesh.
5. Yashwantrao Chavan Maharashtra Open University, Nashik, Maharashtra.
6. Vinayaka Mission Universtiy, Salem, Tamil Nadu.

## RESEARCH PROJECTS

Sr. No.	Title of the project	Funding Agency	Amount (In lacs)	Completed or Sanctioned
1.	Design, Rapid One-Pot Green Chemical Synthesis, Biological Evaluation & Lead Optimization of Condensed & Mononuclear 2H-pyrimidin-4-amines as Potential Anti-proliferative Anticancer Agents.	DST	45	Sanctioned
2.	Design, Synthesis & Evaluation of novel analogs of omeprazole as reversible PPI's	Univ of Pune	3.0	Completed
3.	Microwave Assisted High throughput Synthesis of 2,4-Diaminothieno[2,3-d]pyrimidines	Univ of Pune	2.0	Completed
4.	Rational Design and Green Chemical Process Development for Prazosin Analogs	AICTE, Delhi	14.0	Completed
5.	Rational Design, Synthesis & Evaluation of Novel Cholesterol Lowering Agents	UGC, Delhi	10.0	Completed
6.	Rational Design, Synthesis and Biological Evaluation of selective $\alpha$ 1-adrenoreceptor antagonists	Univ of Pune	3.0	Completed
7.	Design & Evaluation of Some Pyrimidine analogs of Omeprazole derivatives as reversible PPI's	Univ of Pune	3.0	Completed

## PERSONAL PROFILE

<b>Date of Birth</b>	:	24 <sup>th</sup> Feb, 1960		
<b>Age</b>	:	52 years		
<b>Nationality</b>	:	Indian		
<b>Sex</b>	:	Male		
<b>Marital Status</b>	:	<b>Married</b>	Wife	: Professional Beautician
		<b>Two sons</b>	Elder	: Completed B.E (Biotech.), Pursuing Research at UICT, Mumbai
			Younger	: S.E. (Mech.)
<b>Other Interests</b>	:	Good knowledge of Computers and regular use & good expertise in I-Net for literature survey, as well as, patent search (US, EP, WO, JP, etc); Workable Knowledge of German. (Passed German translation test from the Gujarat University, Ahmedabad) Music, sports, films & reading		

## ANNEXURE (PUBLICATIONS & LECTURES)

### REVIEWS

1. 1,5-Benzothiazepine a versatile pharmacophore-A review, **Eur. J. Med. Chem.**, **43**, 2279 (2008). (IF-3.3)
2. Recent Advances in Selective  $\alpha$ 1-Adrenoreceptor Antagonists as Antihypertensive Agents, **Bioorg & Med. Chem.**, **16**, 4759 (2008). (IF-2.92)
3. The Biology and Chemistry of Hyperlipidemia, **Bioorg. & Med. Chem.**, **15**, 4674 (2007) (IF-2.92)
4. Recent advances in proton pump inhibitors and management of acid-peptic disorders, **Bioorg. & Med. Chem.**, **15**, 1181 (2007) (IF-2.92)
5. New Targets for Antihyperlipaemic therapy, **Mini Rev. Med. Chem.**, **10**, 232 (2010). (IF-2.52)
6. Topoisomerase as target for antibacterial and anticancer drug discovery. **J. Enzyme Inhib. Med. Chem.**, PMID: 22380774 (2012).
7. Microwave Assisted Synthesis of Fused Heterocyclic Compounds, **Heterocycles**, **83(11)**, 2451 (2011). (IF-0.99)
8. Synthesis of Pyrimidines and Condensed Pyrimidines through Reactions of Nitriles with ortho-Aminocarbonyl Substrates under Acidic Conditions, **Heterocycles**, **78(7)**, 1627 (2009). (IF-0.99)
9. Biological & Medicinal Significance of Pyrimidines; **Curr. Sci.**, **90**, 793 (2006) (IF-0.90)
10. Phytochemical & pharmacological potential of myristica fragrans houtt : A comprehensive review, **Pharmacog. Rev.**, **2**, 68 (2008).
11. Impact of Microwave assisted heating on the combinatorial & parallel synthesis of compound libraries for New Drug Discovery Research, **Indian Drugs**, **46(10)**, 747 (2009); **Received the Indian Drugs best review paper award-2009**
12. Ezetimibe: A Novel cholesterol absorption inhibitor, **Indian Drugs**, **46(2)**, 91 (2009).
13. Nanoparticles in Drug Targeting: A Review, **Indian Drugs**, **47(10)**, 05 (2010)
14. Hyphenated Analytical Techniques: **Indian J. Pharm. Edu. & Res.**, **42**, 395 (2008). (IF-0.106).

### INTERNATIONAL JOURNALS

1. Agmatine, and endogenous ligand of imidazoline receptor protects against memory impairment and biochemical alterations in streptozotocin induced diabetic rats, **Prog. Neuropharmacol. Biol. Psychiatry**, **37(1)**, 96-105 (2012). (IF-3.138)
2. Acquisition Expression and Reinstatement of ethanol induced condition place preference in mice: effects of exposure to stress and modulation by mecamylamine, **J. Psychopharm.**, **26(2)**, 315 (2012). (IF-3.03).
3. Influence of  $\sigma$ 1 receptor modulators on ethanol induced conditioned place preference in the extraction-reinstatement model, **Behavioral Pharmacol.**, **23**, 25 (2012). (IF-2.72)
4. A novel synthesis of 1-aryltetrazoles promoted by employing the synergy of the combined use of DMSO and an ionic liquid as the solvent system at ambient temperature, **Tet. Lett**, **50**, 6139 (2009). (IF-2.60)
5. Microwave Based Synthesis of Novel Thienopyrimidine Analogs of Gefitinib; **Tet. Lett**, **49**, 1269 (2008). (IF-2.60)
6. Synthesis and anti-hyperlipidemic activity of some novel 4-substituted-2-substitutedmethyl- triazino[6,1-b]quinazolin-10-ones & 2,4-disubstitued-6,7-dimethoxyquinazolines, **Arabian J. Chem.**, xxx, xxx (2012). (IF-1.367).
7. Synthesis Characterization and anticancer activity of 3-aza analogues of DP-7, **Med. Chem. Res.**, 21(12), 4002-4009 (2012). (IF-1.27)
8. Synthesis and Antihyperlipidemic activity of novel condensed 2-fluoromethylpyrimidines, **Med. Chem. Res.**, DOI 10.1007/s00044-012-0163-z
9. Reactions of nitriles under acidic conditions: A facile acid catalyzed synthesis of condensed 2-substitutedpyrimidin-4(3H)-ones under microwave irradiation, **J. Heterocycl. Chem.**, 46, 178 (2009). (IF-1.22)
10. Reaction of Nitriles under Acidic Conditions: Part VII. Study on the reaction of *o*-Aminonitriles with Cyanamides to synthesize 2,4-diaminothieno[2,3-*d*]pyrimidines, **J. Heterocycl. Chem.**, 30, 435 (1994). (IF-1.22)
11. Synthesis of some Novel Azido/Tetrazolothienopyrimidines and their reduction to 2,4-diaminothieno[2,3-*d*]pyrimidines, **J. Heterocycl. Chem.**, 29, 383 (1992). (IF-1.22)
12. Reaction of Nitriles under Acidic Conditions: Part V. Synthesis of Condensed 4-Chloro & 4-Aminopyrimidines from *o*-Aminonitriles, **J. Heterocycl. Chem.**, 27, 119 (1990). (IF-1.22)
13. Reaction of Nitriles under Acidic Condition: Part III. A Facile Synthesis of thieno[2,3-*d*]pyrimidin-4(3H)-ones, **J. Heterocycl. Chem.**, 21, 375 (1984) (IF-1.22)
14. Novel dual use of formamide-POCl<sub>3</sub> mixture for the efficient one-pot synthesis of condensed 4H-pyrimidin-4-amine libraries under microwave irradiation. **Synth. Commun.**, 43(5), 719-727 (2013). (IF-1.06)

15. A rapid and facile esterification of Na-carboxylates with alkylhalides promoted by the synergy of the combined use of DMSO and an ionic liquid under ambient conditions. **Synth. Commun.**, **40**, 3522 (2010). (IF-1.06)
16. Efficient and rapid one-pot synthesis of substituted 2-amino-3-carbomethoxythiophenes under Microwave Irradiation. **Synth. Commun.**, **37**, 4273 (2007). (IF-1.06)
17. Synthesis and antihyperlipidemic activity of some novel condensed 2-chloroalkyl-4-chloro/hydroxy-5,6-disubstitutedpyrimidines, **Arzneim. Forsch./ Drug Res.**, **57**, 599 (2007). (IF-0.72)
18. Mechanism of antihyperlipaemic activity and pharmacokinetics of 2-chloromethyl-5,6,7,8-tetrahydrobenzo(b)thieno[2,3-d]pyrimidin-4(3H)-one, **Arzneim. Forsch./ Drug Res.**, **47**, 1125 (1997). (IF-0.72)
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## INVITED LECTURES DELIVERED ABROAD

1. 'The Biology and Chemistry of Hyperlipidemia' 03-07-2007 at Institute of Applied Synthetic Chemistry, Getreidemark-9-1630C, Technical University Vienna, Austria.
2. 'Organic and Microwave-Assisted Chemistry' 29-06-2007, at Department of Chemistry, 'Laboratory for Organic and Microwave assisted chemistry (LOMAC)', Katholike Universitat, Celestijnenlaan, Leuven-Heverlee, Belgium.
3. 'Green Chemistry and Pharmaceutical Education and Pharmaceutical Industry in India.' 05-07-2007, at Institute of Pharmacy, Freidrich Schiller University, Jena, Germany.

## PAPERS PRESENTED AT SCIENTIFIC INTERNATIONAL MEET

1. Design, synthesis and QSAR of novel CNS depressant 1-(un)substituted-4-aryl-5-imino-[1,2,4]-triazolo-[4,3-*a*]quinazolines, presented at Pharmaceutical Sciences World Congress, Kyoto, Japan, May 29 – Jun 3, 2004.
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