

## **Detail the plans of the institution for the next year:**

Yearly plan: 1<sup>st</sup> July 2009 to 30<sup>th</sup> June 2010

### **1. Admission process**

The test for admission to all the following courses would be conducted on the 1<sup>st</sup> July, 2009.

- M.Sc Chemistry
- M.Sc. Applied Chemistry
- M.Sc. Pharmaceutical Chemistry

### **2. Syllabus & Classes:**

The classes will start from July 3, 2009 for all the students of M.Sc. III semester and the classes of newly admitted students in MSc. I semester will start from July 10, 2009. Every student will be given a copy of syllabus.

### **3. Test and exam schedule:**

Test and exam schedules will be displayed on the notice board by July 15, 2009, which will be followed strictly by the faculty.

Results of Semester – I and III will be declared before 30<sup>th</sup> Dec., 2009 & results of Semester II and IV will be declared by 30<sup>th</sup> June 2010.

### **4. Attendance:**

The record of attendance of the students will be maintained by the faculty members.

### **5. Improvement of the academic activity:**

The seminar activity will be included to improve the academic activity.

### **6. Invited Lectures:**

Eminent scientists and Professors will be invited to deliver the lectures on contemporary topics.

### **7. Laboratories:**

The existing laboratories of the school will be upgraded with new equipments through the funds provided under the FIST programme.

**8. Research grants & Research:**

Faculty is actively engaged in research as is evidenced by good number of research publications in various standard journals of National and International repute and the funds provided by various funding agencies. (Annexure II and Annexure III)

**9. Conference / Workshop:**

Faculty members and students will participate in conferences through invited lectures and paper presentations.

## Annexure I

### Details of research grant received from different agencies during the last five years:

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding agency
Dr. R. Prasad	Surface and catalytic studies of nanocrystalline and nanoporous metal oxides	Rs.3,06,000/-	CSR-CRS
	Studies of few catalytic vapourphase alkylation and cyclization reactions.	Rs. 7,64,800/-	UGC
Dr. Ashok Kumar	Synergistic extraction and spectrophotometric determination of toxic metal ions and lanthanides at trace level by chromogenic substituted calix(n) arenes.	Rs. 10,46,000/-	CSIR
	Synergistic extraction and stripping voltammetric determination of toxic metal ions and lanthanides at trace level.	Rs. 17,00,000/-	DST
Dr. H.P.S. Chauhan	Studies on the Synthetic, Structural and Biochemical Aspects of some Group 14 and 15 Metal and Organometal Derivatives with Biologically Important and Structurally Interesting S and/ or O Ligands.	Rs.2,99,560/-	UGC
	Synthetic, Spectroscopic, Thermal and Biochemical Studies on some Group 14 (Si, Ge and Sn) and Group 15 (As, Sb and Bi) Metal and Organometallic Complexes with some sulphur and/or Oxygen Donor Organic Ligands	Rs.4,11,100/-	UGC

## Annexure II

### International Collaboration of the Professors:

#### Dr. K.K. Pandey

World's most prestigious Alexander von Humboldt Fellowship Germany	(May, 1982 – December, 1983) (University of Göttingen)
	(May, 2002 – July, 2002) (University of Marburg)
	(May, 2004 – July, 2004) (University of Marburg)
	(May, 2005 – June, 2005) (University of Marburg)
	(May, 2006 – July, 2006) (University of Marburg)
Visiting Professor Department of Chemistry Universitat Autònoma de Barcelona, Spain	May, 2008 – June, 2008
Emerson Center's <u>Visiting</u> Fellow for the, Emory University, Atlanta	July 2008-Sept. 2008

#### Dr. Ashok Kumar

Visited University of Pecs, Hungary under Indo-Hungarian Exchange Program	Nov. 10, 2008 – Feb. 9, 2009
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**SCHOOL OF CHEMICAL SCIENCES  
DEVI AHILYA UNIVERSITY, INDORE**

**List of Publications : (Last five years)****Professor K.K. Pandey**

1. Krishna K. Pandey, M. Lein, G. Frenking  
Metal germylene complexes  $[M\equiv Ge-R]$  and metallocermylenes  $[M-Ge-R]$ :  
DFT analysis of the systems  $[(Cp)(CO)_nM\equiv GeMe]$  ( $M = Cr, Mo, W, Fe^{2+}, n=2$ ;  
 $M=Fe, n=1$ ) and  $[(Cp)(CO)_nM-GeMe]$  ( $M = Cr, Mo, W, n=3; M= Fe, n=2$ )  
J. Am. Chem. Soc. 125, 1660-1668, 2003. **Impact Factor : 7.69**
2. Krishna K. Pandey  
DFT study on the Reed diethylaluminum cation-like system: Structure and  
bonding in  $Et_2Al(CB_{11}H_6X_6)$   
( $X = Cl, Br$ )  
Inorg. Chem. 42, 6764-6767, 2003. **Impact Factor : 3.9**
3. Krishna K. Pandey, M. Lein, Gernot Frenking  
Where are the hydrogen atoms in  $[(Cp)(PH_3)_2W(H_2SiMe_2)]^+$ ? A theoretical  
study.  
Organometallics 23, 2944-2948, 2004. **Impact Factor : 3.63**
4. Anupum Singh, Manish Chandra, Abhaya N. Sahay, Daya S. Pandey,  
Krishna K. Pandey, Shaik M. Mobin, Carmen Puerta, Pedro Valerga  
Arene ruthenium complexes incorporating imine/azine hybrid-chelating  
N-N' donor ligands: synthesis, spectral, structural aspects and DFT studies.  
J. Organomet. Chem. 689, 1821-1834, 2004. **Impact Factor : 3.632**
5. Krishna K. Pandey, Gernot Frenking  
The nature of the  $M\equiv E$  bond: Theoretical investigation of the molecules  
 $[(OR)_3M\equiv E]$  ( $M = Mo, W; E = N, P, As, Sb, Bi; R = H, Me$ ) and  
 $[(Me_3CO)_3Mo\equiv P]$   
Eur. J. Inorg. Chem. 4388-4395, 2004. **Impact Factor : 2.704**
6. Krishna K. Pandey  
Energy Analysis of Metal-Metal Bonding in  $[RM-MR]$  ( $M = Zn, Cd, Hg; R =$   
 $CH_3, SiH_3, GeH_3, C_5H_5, C_5Me_5$ )  
J. Organomet. Chem. 692, 1058-1063, 2007. **Impact Factor : 3.632**
7. Krishna K. Pandey  
Structure and Coordinate Bonding Nature of the Rhenium- $\sigma$ -borane complexes  
J. Mol. Struct. (THEOCHEM) 807, 61-66, 2007. **Impact Factor : 1.49**

8. Krishna K. Pandey  
Structure and coordinate bonding nature of the manganese- $\sigma$ -borane complexes  
J. Organomet. Chem. 692, 1997-2005, 2007. **Impact Factor : 3.632**
9. Andreas Krapp, Krishna K. Pandey and Gernot Frenking  
Transition Metal-Carbon Complexes. A Theoretical Study  
J. Am. Chem. Soc. 129, 7596-7610, 2007. **Impact Factor : 7.69**
10. Krishna K. Pandey  
Structure and energy decomposition analysis of metal-metal bonding in [PhM-MPh] and [ClM-MCl] (M = Zn, Cd, Hg)  
J. Mol. Struct. (THEOCHEM) 823, 59-64, 2007. **Impact Factor : 1.49**
11. Krishna K. Pandey  
Stretched  $\sigma$ -borane complexes of rhodium: A theoretical study  
Inorg. Chem. Commun. 11, 288-292, 2008.
12. Krishna K. Pandey  
 $\sigma$ -Borane complexes of nickel, palladium and platinum. A theoretical study  
J. Mol. Struct. (THEOCHEM) 855, 18-26, 2008. **Impact Factor : 1.49**
13. Krishna K. Pandey  
Transition Metal sigma-borane complexes  
Coord. Chem. Revs. In Press (2008) **Impact Factor : 8.815**

**Dr. R. Prasad – Professor**

1. A.Radheym, Vanga S Reddy, R. Dwivedi and R. Prasad,  
Kinetic Studies and Mechanism evolution of the ammoxidation of 3-picoline over  $V_2O_5 / ZrO_2$  Catalyst.  
*Canadian J. Chem. Engg.*, 83, 274(2005) **Impact Factor : 0.505**
2. Vanga S Reddy, A Radheshyam, R Dwivedi, R K Gupta, V R Chumbhale and R Prasad  
Ortho Selective Vapour Phase Methylation of Phenol over Nanocrystalline Ferrospinel on varying  $Zn^{+2} / Mn^{+2}$  ion composition.  
*Journal of Chemical Technology and Biotechnology*, 79, 1057 (2004)
3. T.. Rajiah, KVR Chary, KS, Rama Roa, RN Roa and R Prasad  
Synthesis of 3-nitrophthalic acid by Oxidation of 1-nitrophthalin using  $\gamma$ -alumina supported ceria (IV) as Catalyst,

- Greene Chemistry*, 4(3), 210, 2002 **Impact Factor : 3.5**
4. A Radheshyam, R Dwivedi, V S Reddy, KVR Chary and R Prasad  
Vapour Phase Methylation of Pyridine with Methanol over  $Zn_{1-x} Mn_x Fe_2O_4$   
( $x = 0, 0.25, 0.5, 0.75, 1.0$ ) Ferrites System.  
*Greene Chemistry*, 4, 558, 2002 **Impact Factor : 3.5**
  5. Vanga S Reddy, A Radheshyam, R Dwivedi, R K Gupta, V R Chumbhale  
and R Prasad  
Destructive Adsorption of Methyl Parathion over Nanocrystalline MgO.  
*Indian J. Chemistry*, 44A, 251, (2005) **Impact factor 0.401**
  6. Reena Dwivedi, A Radheshyam, R Prasad and HPS Chauhan  
Alkylation of Aniline with ethanol over  $Zn_{1-x} Mn_x Fe_2O_4$  ( $x = 0, 0.25, 0.5,$   
 $0.75, 1.0$ ) Ferrites system.  
*Indian J. Chem. Technol.*, 12, 1, (2004)
  7. A Radheshyam, R Dwivedi, V S Reddy, Tushar Banerjee, Pankaj Patidar  
and R Prasad Spectroscopic and Surface Studies of Catalytic Active  $Zn_{1-x}$   
 $Mn_x Fe_2O_4$  ( $x = 0, 0.25, 0.5, 0.75, 1.0$ ) Ferrosipinel System.  
*Indian J. Chemistry*, 43 A, 1088 (2004). **Impact factor 0.401**
  8. Basak, N. Hardia, R. Dixit, S. Bhadauria, R. Dwivedi, A. Soni, G. S.  
Okram, A. Gupta  
Ammoximation of cyclohexanone over nanoporus TS-1 using UHP as  
an oxidantS. Saxena, J.  
*Chem. Engin. J.* 132, 61 (2007) **Impact factor 1.594**
  9. M. Banerjee, N. Verma, R. Prasad  
Structural and catalytic properties of  $Zn_{1-x}Cu_xFe_2O_4$  nanoparticles  
*J. Mater. Sci.* 42, 1883 (2007)

**Dr. A.V. Bajaj - Professor**

1. PV Khadikar, D Mandloi, **AV Bajaj** and S. Joshi  
QSAR study on solubility of alkanes in water and their partition  
coefficients in different solvent  
system using PI index.  
  
*Bioorganic and Medicinal Chemistry Letters*, 13, 419-422, (2003).  
**Impact Factor : 2.538**
2. P.V Khadikar, S. Singh, D. Mandloi, S. Joshi and **A.V. Bajaj**  
QSAR study on Bioconcentration factor(BCF) of  
polyhalogenatedbiphenyls using the PI index.  
  
*Bioorganic and Medicinal Chemistry* 11, 5045-5050, (2003) **Impact**

**Factor : 2.624**

3. PV Khadikar, S. Joshi, **AV Bajaj** and D Mandloi  
Correlation s Between the Benzene Character of Acenes or Helicenes  
and Simple Molecular Descriptors.

Bioorganic and Medicinal Chemistry Letters, 14 AV Bajaj and, 1187-  
1191 (2004) **Impact Factor : 2.538**

**Dr. Ashok Kumar – Professor**

1. **Ashok Kumar**, Pratibha Sharma , Lal Kumar Chandel and Bhagwan Lal Kalal  
Synergistic extraction and spectrophotometric determination of palladium  
(II) iron (III) and tellurium (IV) at trace level by newly synthesized p-[4-(3,  
5-dimethyl isoxazolyl) azophenylazo] calix (4) arene  
Journal of Inclusion Phenomena and Macrocyclic chemistry, Springer (In  
press). **Impact Factor : 1.251**
2. Pratibha Sharma, **Ashok Kumar**, Siya Upadhyay, Vinita Sahu and  
Jitendra Singh  
Synthesis and QSAR Modeling of 2-acetyl-2-ethoxycarbonyl-1- [4(4'-  
arylazo)-phenyl]-N,N-dimethyl-aminophenyl aziridines as Potential  
Antibacterial Agents  
European Journal of Medicinal Chemistry, (Elsevier) (2007) (in Press)  
**Impact Factor : 2.187**
3. Pratibha Sharma, **Ashok Kumar**, Vinita Sahu and Jitendra Singh  
Frontier Orbital Interactions in the NDAC and IEDDAC Hetero Diels Alder  
Cycloaddition of Diazadienes  
Canadian Journal of Chemistry (2007) (in Press) **Impact Factor : 1. 153**
4. Pratibha Sharma, **Ashok Kumar** and Priti Pandey  
A facile synthesis of N-Pheyl-2, 6-dihydroxy-3-bromo-4-arylazoquinoline  
under phase transfer catalytic condition and studies on their antimicrobial  
activities  
Indian J. Chem., Sec. B, (CSIR ) 45 B 2077-2082 (2006).  
**Impact Factor : 0. 401**
5. Pratibha Sharma, **Ashok Kumar** and Manisha Sharma  
Synthesis and electrochemical investigations on 2-phenyl-4-[4'-(3"-ethyl)-  
Pheny lazophenyl]-3-thioxo-3,4-dihydro-2H,2,4,9,10-tetraazaphene  
nanthrene-1-one  
Indian J. Chem., 45A,872-876 (2006) **Impact Factor : 0. 504**



6. Synthesis and QSAR studies on 4,6-diphenyl- 5[2-(2-methylprop1-enyl)-1H benzimidazole-1yl] pyrimidene-2-(5H)-thione derivatives  
Pratibha Sharma, Ashok kumar and Manisha Sharma  
Eur. J. Med. Chem., ( Elsevier) 41,833-840 (2006).
7. **Ashok Kumar**, Pratibha Sharma, V. K. Gurram and Nilesh Rane  
Studies on synthesis and evaluation of quantitative structure activity relationship of 10-methyl-6- oxo-5-arylo-6, 7-dihydro-5H-[1,3] azaphospholo[1,5-d][1,4] benzodiazepine -2 -phospha-3-ethoxycarbonyl-1-phosphorous dichlorides  
Bioorganic and Medicinal Chemistry Letters, 16, 2854, (2006).  
**Impact Factor : 2.538**
8. Pratibha Sharma, Ashok kumar and Nilesh Rane  
An Expedient Synthesis of Novel, Fused Pyrimido[4,5-d]pyrimidine and Pyrimido[5,4-e][1,2,4]triazolo[4,3-c]pyrimidine Analogues from 4-Amino 2,6-dichloropyrimidine  
Heteroatom Chemistry,( Wiley Inter Science )17,245-253(2006).  
**(Impact Factor=0.98)**
9. Pratibha Sharma,**Ashok kumar** and Manisha Sharma  
A Facile Synthesis of 4-[2-(2-methyl prop –1-enylidene)-2,3-dihydro-1H-benzimidazole-1-yl]-1-naphthol under phase transfers catalysis conditions.  
Catalysis Communications, ( Elsevier) 7,611-617(2006)  
**Impact Factor : 1.878**
10. Pratibha Sharma, **Ashok kumar** and Manisha Sharma  
Generation of 4,6- dimethyl-5- [2-(2-methylprop-1-enyl)- 1H-benzimidazol-1-yl]pyrimidine- 2(5H)-thiones under kinetically controlled phase transfer catalysis conditions  
J. Mol. Cat. A,237,191-198 (2005) **Impact Factor : 2.51**
11. Pratibha Sharma, **Ashok Kumar**, Nilesh Rane and Vamsi Gurram  
Hetero Diels-Alder reaction: a novel strategy to regioselective synthesis of pyrimido [4,5-d]pyrimidine analogues from biginelli derivative  
Pratibha Sharma, Ashok Kumar, Nilesh Rane and Vamsi Gurram  
Tetrahedron, ( Elsevier) 61, 4237-4248 (2005) **Impact Factor : 2.817**
12. Pratibha Sharma, **Ashok Kumar**, Shikha Sharma and Nilesh Rane  
Studies on synthesis and evaluation of quantitative structure–activity relationship of 5-[(3'-chloro- 4',4'-disubstituted-2-oxoazetidiny] (N-nitro amino)-6-hydroxy-3-alkyl/aryl[1,3]- azaphospholo[1,5-a]pyridin-1-yl-phosphorus dichlorides.  
Bioorg.Med.Chem. Lett 15, 937-943 (2005) **Impact Factor : 2.538**

13. Pratibha Sharma, **Ashok Kumar** and Manisha Sharma and Siya Upadhyay  
Synthesis, characterization and electrochemical behaviour of some substituted 2-phenyl-4(4'- Indian J. Chem., 43B, 2653-2660, (2004).  
**Impact Factor : 0. 401**
14. Polarographic and Cyclic Voltammetric investigations of 3-(4'-ethyl) phenyl azo- 2,4,6-trimethyl quinoline  
Pratibha Sharma **Ashok Kumar** and Priti Pandey,  
Bull.Electrochem ,20, 25-28 (2004).
15. Pratibha Sharma,Ashok Kumar and Shikha Sharma  
Bisheterocyclic Synthesis and Antimicrobial studies on some biologically significant 2-[N (3'-chloro-4'-substituted azetidinone-2)] amino-4-hydroxy purines  
Indian J. Chem., Sec. B,43 B,385-388(2004). **Impact Factor : 0. 401**
16. Pratibha Sharma, **Ashok Kumar** and Shikha Sharma,  
Synthesis and comprehensive electrochemical investigations of 1-dichlorophos- phino-2-phospha-3-phenyl-4-mercapto-5-aza-6-hydroxy-7-arylazoindolizines .  
Indian J. Chem., 43B, (2431-2439) 2004. **Impact Factor : 0. 401**
17. Pratibha Sharma, **Ashok Kumar**, Priti Pandey and Nilesh Rane,  
A comprehensive electrochemical studies on some synthesized substituted 3-aryl azo2,4,6 trimethyl quinolines  
Indian J. Chem. Sec. B, 43B, 6,1320-,(2004) **Impact Factor : 0. 401**
18. Pratibha Sharma, **Ashok Kumar** ,Ravi Sharma and Shikha Sharma  
Electrochemical Reduction of 1-Dichlorophosphino- 2-phospha-3-benzyl-4- mercapto - 5-aza- 7-(4-methyl)phenyl azo indolizine.  
Bull.Electrochem ,19, 433(2003).
19. Pratibha Sharma , **Ashok Kumar** and Priti Pandey  
An Unusual Synthesis of Arylazo Substituted Azaphosph a[5,1- a]Quino lines by Reaction of N-Alkylarylazo quinolinium Salts with Phosphorus trichloride.  
Phosphorus, Sulphur, Silicon and Related Elements 178,583,(2003)  
**Impact Factor : 0. 675**
20. **Ashok Kumar** , Pratibha Sharma ,Pankaj Mohan and Ravi Sharma,  
Synthesis and Antimicrobial Screening of N-Substituted-3-chloro-4-dithio- carbamates- azitidan-2-ones  
Indian J. Chem. Sec. B 42B, 426(2003). **Impact Factor : 0. 401**

21. **Ashok Kumar**, Pratibha Sharma, and Anupam Mandloi.  
Synthesis of 25,26,27-Tris(ethoxy carbonyl methoxy)-28-(substituted oxy carbonyl methoxy)calixarene: First example of Calix- imidazole / benzimidazole analog.  
Synthetic. Communications. Marcel Dekker (NY) 33(3),373, (2003).  
**Impact Factor : 0. 703**
22. **Ashok Kumar** ,Pratibha Sharma and Ravi Sharma,  
Synthesis, Characterization and Electrochemical Studies on Substituted 3-arylazo-4-methyl-8-aldehydo Coumarins at Dropping Mercury and Glassy Carbon Electrode.  
Indian J. Chem. 42B,363(2003). **Impact Factor: 0. 401**

**Dr. H.P.S. Chauhan - Professor**

1. Synthesis and Characterization of Toluene-3,4-dithiolatoarsenic(III) Derivatives of Dialkyldithiophosphate  
H.P.S. Chauhan and Kavita Kori  
Phosphorus, Sulphur and Silicon, 178,  
1815-1823 (2003) **Impact Factor : 0.675**
2. Synthesis and Spectroscopic Studies of some mixed Toluene-3,4-dithiolato-bismuth(III) Derivatives with O,O'-Dialkyldithiophosphates  
H.P.S. Chauhan, Nagulu Meera Shaik and Kavita Kori  
Main Group Metal Chemistry, 26,  
213-220 (2003). **Impact Factor : 0.857**
3. Synthesis and Characterization of some Toluene-3,4-dithiolatobismuth(III) Alkyl Dithiocarbonates  
H.P.S. Chauhan, Nagulu Meera Shaik and Kavita Kori  
Synth. React. Inorg. Met.-Org. Chem., 34,  
323-333 (2004) **Impact Factor : 0.446**
4. Alkylation of Aniline with Ethanol over  $Zn_{1-x}Mn_xFe_2O_4$  (X = 0, 0.25, 0.50, 0.75 and 1.0) Ferrite System  
R. Dwivedi, A. Radhe Shyam, R. Prasad and H.P.S. Chauhan  
Indian J. Chem. Technol., 11, 254-259 (2004).
5. Complexes of Bis(Dialkyldithiocarbamate)Arsenic(III) with Alkyldithiocarbonates: Synthesis and Characterization  
H.P.S. Chauhan, Kavita Kori, N.M. Shaik and U.P. Singh

Main Group Metal Chemistry, 27,  
11-19 (2004). **Impact Factor : 0.857**

6. PVC Membrane based Potentiometric Sensor for Uranyl ion Using  
Thenoyl Trifluoro Acetone as Ionophore  
D. Nanda, H.P.S. Chauhan and B. Maiti  
Indian J. Chem., 43A, 1685-1688 (2004). **Impact Factor : 0.407**
7. Transport of Uranyl ion ( $\text{UO}_2^{2+}$ ) across Bulk Liquid Membrane by  
Thenoyl Trifluoro Acetone (TTA)  
D. Nanda, H.P.S. Chauhan and B. Maiti  
Indian J. Chem. Technol., 11, 643-647 (2004).
8. Synthetic, Spectral. Thermal and Antimicrobial Studies on some Mixed  
1,3-Dithia-2-stannacyclopentane Derivatives with Dialkyldithiocarbamates  
H.P.S. Chauhan and N.M. Shaik  
Journal of Inorg. Biochem. 99, 538-545 (2005)  
**Impact Factor : 2.423**
9. Dialkyldithiocarbamate Derivatives of Toluene-3,4-dithiolato  
Arsenic(III) and -Bismuth(III): Synthetic, Spectral and Single Crystal  
X-Ray Structural Studies.  
Polyhedron, 24, 89-95 (2005) **Impact Factor : 1.843**
10. Synthetic and Spectroscopic Studies on some  
Bis(Dialkyldithiocarbamato)-Arsenic(III) O,O'-Dialkyldithiophosphates  
H.P.S. Chauhan, Kavita Kori, N.M. Shaik and U.P. Singh  
Phosphorus, Sulphur and Silicon, 180,  
31-40 (2005). **Impact Factor : 0.675**
11. Synthetic, Spectroscopic and Antimicrobial Studies of  
Bis(dialkyldithiocarbamato)dialkyldithiophosphatobismuth(III)  
Complexes  
H.P.S. Chauhan, N.M. Shaik and U.P. Singh  
WILEY-INTERSCIENCE, Applied Organometallic Chemistry, 19  
1132-1139 (2005). **Impact Factor :1.373**
12. Synthesis, Spectroscopic Characterization and in vitro Studies of  
Antimicrobial Activity of Bis(diorganodithiocarbamato)organo-  
dithiocarbonatobismuth(III) Complexes  
H.P.S. Chauhan, N.M. Shaik and U.P. Singh  
Applied Organometallic Chemistry, 20  
142-148 (2006). **Impact Factor : 1.373**
13. Synthetic, Spectral, Thermal and Antimicrobial Studies of Bis(N,N-  
dialkyldithiocarbamato)arsenic(III) and Antimony(III) Complexes with

Diphenyldithiophosphate and Diphenyldithiophosphinate.

H. P. S. Chauhan and U. P. Singh  
Applied Organometallic Chemistry, 20,  
404-410 (2006) **Impact Factor : 1.373**

14. Synthetic, Spectroscopic, X-ray Structural and Antimicrobial Studies of 1,3- Dithia-2-stibacyclopentane Derivatives of Phosphorus Based Dithiolato Ligands.

H. P. S. Chauhan, U. P. Singh, N. M. Shaik, S. Mathur, V. Huch.  
Polyhedron, 25, 2841-2847 (2006). **Impact Factor :1.843**

15. Synthetic and Spectral Characterization as well as In Vitro Antimicrobial Activity of Bis(N, N'-dialkyldithiocarbamato) Arsenic(III) Alkylenedithiophosphates.

H. P. S. Chauhan, U. P. Singh and N. M. Shaik  
Main Group Metal Chemistry, 29,  
221-231(2006) **Impact Factor :0.857**

16. Synthetic, Spectroscopic and Antimicrobial Studies of 1,3-Dithia-2-arsacyclopentane Derivatives of Phosphorus Based Dithiolato Ligands.

H. P. S. Chauhan, U. P. Singh and N. M. Shaik  
FREUND PUBLICATION, Main Group Metal Chemistry,  
(accepted) (2008) **Impact Factor :0.857**

17. Synthetic, Spectral, Thermal and Antimicrobial Studies on some Bis(N, N'-dialkyldithiocarbamato)antimony(III) Alkylenedithiophosphates.

H. P. S. Chauhan and U. P. Singh  
Applied Organometallic Chemistry,  
21, 880-889 (2007 **Impact Factor : 1.373**

### **Dr. Sheela Joshi – Professor**

1. Synthesis, Characterization and Antimicrobial activity of Mannich bases of 2-chloro 4-nitro benzamide Derived from sulphonamides  
Sheela Joshi, Anju Das Manikpuri and Deepak Khare  
Journal Of Indian Chemical Society, Kolkata, India ,85 (May 2008) 1-5
2. Synthesis, characterization and biological study of Medicinally Important Mannich bases derived from 4-(dimethylamino)- 1,4,4a, 5,5a, 6,11,12a -octahydro -3,6,10,12,12a pentahydroxy naphthacene carboxamide  
Sheela Joshi, Anju Das Manikpuri and Prapti Tiwari

Bioorganic and Medicinal Chemistry Letters, Japan, 17(2007) 645-648  
**Impact Factor : 2.538**

3. QSAR Study on Sulpha Drugs : Building Blockers of Mannich Bases.  
Dheeraj Mandloi, Sheela Joshi, P V Khadikar and Navita Khosla. Bioorganic and Medicinal Chemistry Letters, Japan, 15 (2005) 405-411. **Impact Factor : 2.538**
4. Synthesis and *invitro* study of Novel Mannich Bases as antibacterial agents.  
Sheela Joshi, N. Khosla, D. Khare and R. Sharda.  
Bioorganic and Medicinal Chemistry Letters, Japan, 15 (2005) 221-225.  
**Impact Factor 2.538**
5. Correlations between the Benzene character of Acenes or Helicenes and SimpleMolecular Descriptors.  
P.V. Khadikar , Sheela Joshi ,Amrit Bajaj and Dheeraj Mandloi.  
Bioorganic and Medicinal Chemistry Letters, Japan, 14 (2004) 1187-1191.  
**Impact Factor : 2.538**
6. *Invitro* study of some Medicinally Important Mannich Bases derived from Antitubercular Agent.  
Sheela Joshi , Prapti Tiwari and Navita Khosla.  
Bioorganic and Medicinal Chemistry, Japan, 12 (2004) 571-576.  
**Impact Factor : 2.624**
7. QSAR Study on Antimicrobial Activity of Sulphonamides and Derived Mannich Bases.  
Sheela Joshi and Navita Khosla  
Bioorganic and Medicinal Chemistry Letters, Japan, 13 (2003) 3747-3751  
**Impact Factor : 2.538**
8. QSAR Study on Bioconcentration factor(BCF) of Polyhalogenated Biphenyls using the PI Index. P.V Khadikar, Shalini Singh, Sheela Joshi D. Mandloi and A.V. Bajaj  
Bioorganic and Medicinal Chemistry Letters, Japan, 11 (2003) 5045-5050  
**Impact Factor : 2.538**
9. QSAR Study on Solubility of Alkanes in Water and Their Partition Coefficients in Different Solvent System Using PI Index.  
P.V. Khadikar, D. Mandloi, A.V. Bajaj and Sheela Joshi  
Bioorganic and Medicinal Chemistry Letters, Japan, 13(2003) 419-422.  
**Impact Factor : 2.538**
10. QSAR study on Antibacterial Studies of Newly Synthesised Mannich Bases derived from 3,5-Dinitro benzoyl-4-amino-benzamido methyl amines.

Sheela Joshi, Dheeraj Mandloi, P V Khadikar and Navita Khosla.  
Bioinformatics India, 2(2004) 92-99.

**Dr. Pratibha Sharma –Professor**

1. Synthesis of bio-active Spiro-2-[3'-(2'-phenyl)-3H-indolyl]-1-aryl-3- phenyl aziridines and SAR studies on their antimicrobial behaviour  
**Pratibha Sharma**, Ashok Kumar, Siya Upadhyay, Vinita Sahu, and Jitendra Singh  
Medicinal Chemistry Research (**Springer**), (2008) (in Press)
2. Synergistic extraction and spectrophotometric determination of palladium (II) iron (III) and tellurium (IV) at trace level by newly synthesized p-[4-(3, 5-dimethyl isoxazolyl) azophenylazo] calix (4) arene  
Ashok Kumar, **Pratibha Sharma**, Lal Kumar Chandel and Bhagwan Lal Kalal  
J. Incl. Phenom. Macrocycl. Chem., 61, 335-342 (2008)
3. Synergistic solvent extraction of copper, cobalt, rhodium and iridium into 1, 2-Dichloroethane at trace level by newly synthesized 25, 26, 27, 28-tetrahydroxy-5, 11, 17, 23-tetra-[4-(N-hydroxyl-3-phenylprop-2-enimidamido) phenylazo] calix[4]arene  
Ashok Kumar, **Pratibha Sharma**, Lal Kumar Chandel, Bhagwan Lal Kalal, Sandor Kunsagi-Mate  
J. Incl. Phenom. Macrocycl. Chem., 62, 285–292 (2008)
4. Frontier Orbital Interactions in the NDAC and IEDDAC Hetero Diels Alder Cycloaddition of Diazadienes  
**Pratibha Sharma**, Ashok Kumar, Vinita Sahu and Jitendra Singh  
Canadian Journal of Chemistry, 86, 384-394 (2008)
5. Diels Alder reaction strategy to synthesize 1, 2, 4, 5- tetrazines and exploration of their anti-inflammatory potential  
**Pratibha Sharma**, Ashok Kumar, Vinita Sahu and Jitendra Singh  
ARKIVOC Arkat, USA (xii) 218-225(2008)
6. Theoretical evaluation of the global and local electrophilicity patterns to characterize hetero Diels Alder cycloaddition in the synthesis of Isoxazolo [4,5-e]-1,2,3,4-tetrazines  
**Pratibha Sharma**, Ashok Kumar, Vinita Sahu and Jitendra Singh  
Chinese Journal of Chemistry, (**Wiley Inter Science**), Accepted, 2008
7. Synthesis and QSAR Modeling of 2-acetyl-2-ethoxycarbonyl-1- [4(4'-aryloxy) - phenyl]-N, N-dimethyl-aminophenylaziridines as Potential Antibacterial Agents

- Pratibha Sharma**, Ashok Kumar, Siya Upadhyay, Vinita Sahu and Jitendra Singh  
European Journal of Medicinal Chemistry, (Elsevier) xx 1-9 (2008)  
(available online)
8. Synthesis and QSAR Modeling of 2-acetyl-2-ethoxycarbonyl-1-[4(4'-aryloxy)-phenyl]-N, N-dimethyl-aminophenyl aziridines as Potential Antibacterial Agents  
**Pratibha Sharma**, Ashok Kumar, Siya Upadhyay, Vinita Sahu and Jitendra Singh  
European Journal of Medicinal Chemistry, (Elsevier) (2007) (in Press) **Impact Factor : 2.187**
9. A facile synthesis of N-Phenyl-2, 6-dihydroxy-3-bromo-4-aryloxyquinoline under phase transfer catalytic condition and studies on their antimicrobial activities  
**Pratibha Sharma**, Ashok Kumar and Priti Pandey  
Indian J. Chem., Sec. B, (CSIR ) 45 B 2077-2082 (2006) .  
**Impact Factor : 0.401**
10. Synthesis and evaluation of antimicrobial activity of novel hydrazino and N-benzylidenehydrazino substituted 4,8-dihydro-1H,3H-pyrimido[4,5-d]pyrimidin-2,7-dithiones  
**Pratibha Sharma**, Nilesh Rane and Priti Pandey  
Archiv Der Pharmazie, (Wiley-VCH) 339,572-575(2006).  
**Impact Factor :1.076**
11. Synthesis and electrochemical investigations on 2-phenyl-4-[4'-(3"-ethyl)-phenylazophenyl]-3-thioxo-3,4-dihydro-2H,2,4,9,10-tetraazaphenanthrene-1-one  
**Pratibha Sharma**, Ashok Kumar and Manisha Sharma  
Indian J. Chem., 45A,872-876 (2006) **Impact Factor : 0.504**
12. Synthesis and QSAR studies on 4,6-diphenyl- 5[2-(2-methylprop-1-enyl)-1H benzimidazole-1-yl] pyrimidine-2-(5H)-thione derivatives  
**Pratibha Sharma**, Ashok kumar and Manisha Sharma  
Eur. J. Med. Chem., ( Elsevier) 41,833-840 (2006).  
**Impact Factor : 2.187**
13. Studies on synthesis and evaluation of quantitative structure activity relationship of 10-methyl-6-oxo-5-aryloxy-6, 7-dihydro-5H-[1,3] azaphospholo[1,5-d][1,4]benzodiazepin-2-phospho-3-ethoxycarbonyl-1-phosphorous dichlorides  
Ashok Kumar, **Pratibha Sharma**, V. K. Gurram and Nilesh Rane  
Bioorganic and Medicinal Chemistry Letters,( Elsevier) 16, 2484-2491,(2006)  
**Impact Factor : 2.538**



14. An Expedient Synthesis of Novel, Fused Pyrimido[4,5-*d*]pyrimidine and Pyrimido[5,4-*e*][1,2,4]triazolo[4,3-*c*]pyrimidine Analogues from 4-Amino 2,6-dichloropyrimidine  
**Pratibha Sharma**, Ashok kumar and Nilesh Rane  
Heteroatom Chemistry , ( Wiley Inter Science ) 17,245-253(2006)  
**Impact Factor : 0.7**
15. Synthesis of 4-[2-(methyl prop-1-enylidene)-2,3-dihydro-1H-benzimidazole-1-yl]-1-naphthol via azo group insertion of dimethylvinylidene carbene under phase transfers catalysis conditions  
**Pratibha Sharma**, Ashok kumar and Manisha Sharma  
Catalysis Communications, ( Elsevier) 7,611-617(2006)  
**Impact Factor : 1.878**
16. Generation of 4,6-dimethyl-5-[2-(2-methylprop-1-enyl)-1H-benzimidazol-1-yl]pyrimidine-2(5*H*)-thiones under kinetically controlled phase transfer catalysis conditions  
Pratibha Sharma, Ashok kumar and Manisha Sharma  
Mol. Cat. A, ( Elsevier) 237,191-198(2005) **Impact Factor : 2.511**
17. Hetero Diels-Alder reaction: a novel strategy to regioselective synthesis of pyrimido[4,5-*d*]pyrimidine analogues from biginelli derivative  
**Pratibha Sharma**, Ashok Kumar, Nilesh Rane and Vamsi Gurram  
Tetrahedron, ( Elsevier) 61, 4237-4248 (2005) **Impact Factor : 2.817**
18. Studies on synthesis and evaluation of quantitative structure–activity relationship of 5-[(3'-chloro-4',4'-disubstituted-2-oxoazetidinyloxy)(N-nitroamino)-6-hydroxy-3-alkyl/aryl[1,3]-azaphospholo[1,5-*a*]pyridin-1-yl]phosphorus dichlorides  
**Pratibha Sharma**, Ashok Kumar, Shikha Sharma and Nilesh Rane  
Bioorg.Med.Chem. Lett. ( Elsevier) 15, 937-943 (2005)  
**Impact Factor : 2.538**
19. Synthesis, characterization and electrochemical behaviour of some substituted 2-phenyl-4-(4'-arylazophenyl)-3-thioxo-3,4-dihydro-2*H*-2,4,9,10- tetraazaphe-nanthrene-1-ones  
**Pratibha Sharma**, Ashok Kumar, Manisha Sharma & Siya Upadhyay  
Indian J. Chem., (CSIR )43B, 2653-2660, (2004). **Impact Factor : 0.401**
20. Synthesis and Comprehensive Electrochemical investigations of 1-dichlorophosphino-2-phospha-3-phenyl-4-mercapto-5-aza-6-hydroxy-arylazaindolizines  
Pratibha Sharma, Ashok Kumar and Shikha Sharma  
Indian J. Chem., (CSIR )43B, (2431-2439) 2004. **Impact Factor : 0.401**
21. Synthesis and QSAR studies of pyrimido[4,5-*d*]pyrimidine-2,5-dione derivatives as potential antimicrobial agents.

**Pratibha Sharma**, Nilesh Rane and V. K. Gurram  
Bioorg.Med.Chem. Lett, ( Elsevier) 14,4185-4190(2004).  
**Impact Factor : 2.538**

22. Bisheterocyclic Synthesis and Antimicrobial studies on Some Biologically Significant 2-[N(3'-chloro-4'-substituted azetidinone-2)] amino-4-hydroxy purines.

**Pratibha Sharma**, Ashok Kumar and Shikha Sharma  
Indian J. Chem., (CSIR ) 43 B, 2,385-388(2004). **Impact Factor : 0.401**

23. Polarographic and Cyclic Voltammeteric Investigation of 3-(4' - ethyl) phenylazo- 2,4,6-trimethyl Quinoline.

**Pratibha Sharma**, Ashok Kumar and Priti Pandey  
Bull.Electrochem, (CSIR) 20,25-28 (2004).

24. A comprehensive electrochemical studies on some synthesized substituted 3-arylazo-2,4,6-trimethyl quinolines

**Pratibha Sharma**, Ashok Kumar, Priti Pandey and Nilesh Rane  
Indian J. Chem., (CSIR) 43B, 6,1320-1328(2004) **Impact Factor : 0.401**

25. Synthesis and in vitro Antimicrobial Activities of 2-hydroxy-6-methyl-7-(aryl amino)-1,7-dihydro purin-8-ones.

**Pratibha Sharma**, Shikha Sharma and Nilesh Rane  
Bioorg.Med.Chem., ( Elsevier) 12,3135-3139(2004).

26. Electrochemical Reduction of 1-Dichlorophosphino-2-phospho-3-benzyl-4-mercapto-5-aza-7-(4-methyl)phenyl azo indolizine.

**Pratibha Sharma**, Ashok Kumar, Ravi Sharma and Shikha Sharma  
Bull.Electrochem., 19, 433-436 (2003).

27. Synthesis of 25,26,27-tris(Ethoxy carbonyl methoxy)-28-(Substituted oxycarbonylmethoxy) Calix-4-arene: First Example of Calix -imidazole/ Bezimidazole Analog.

**Pratibha Sharma**, Ashok Kumar and Anupam Mandloi,  
Synthetic Comm. (Marcel Dekker), 33(3), 373-380(2003).  
**( Impact Factor : 0. 703 )**

28. Synthesis and Anti Microbial Screening of-3-chloro -4- dithiocarbamates azitidi -2)ones.

Ashok Kumar, **Pratibha Sharma**, Ravi Sharma, and Pankaj Mohan  
Indian J. Chem., 42B,,416-420,(2003) **Impact Factor : 0.401**

29. Synthesis, Characterization and Electrochemical Behaviour of some Substituted 3-Arylazo-8 - aldehydo-4-methyl coumarins at Dropping mercury and Glassy carbon Electrode.

Ashok Kumar , **Pratibha Sharma** ,and Ravi Sharma

Indian J. Chem.,42B,363-368,(2003) **Impact Factor : 0.401**

30. An Unusual Synthesis of Arylazo Substituted Azaphospa[5,1-a]Quinolines by Reaction of N-Alkylarylazo quinolinium Salts with Phosphorus trichloride.

**Pratibha Sharma** , Ashok Kumar and Priti Pandey

Phosphorus, Sulphur , Silicon and Related Elements, 178,583-594,(2003)

**Impact Factor : 0.675**

### **Dr. Savita Khare – Reader 30**

1. Epoxidation of cyclohexene catalysed by Mn (II) supported on titanium arsenate as a catalyst and dry TBHP as an oxidant .

Savita Khare and S. Shrivastava

J Indian Chem. Soc., 83,813(2006).

2. A statistical study on the physicochemical characteristics of industrial Waste Water.

S.V. Mahajan, Shavita Khare and V.S. Shrivastava

International J Chem . Science., 3,221 (2005)

3. Synthesis Characterization and Evaluation of Ti Ru (III) W for Epoxidation of Cyclohexene

S.V. Mahajan, Savita Khare and V.S. Shrivastava

International J Chem . Science., 3,221 (2005)

S. Shrivastava S.V. Mahajan, and Shavita Khare

Oriental Journal of Chem.,20, 611 (2004)

4. Epoxidation of Cyclohexene catalysed by transition – metal substituted titanium arsenate using tert- butylhydroperoxide as an oxidant

Savita Khare and Sandeep Shrivastava

Journal of Molecular catalysis, A : 217, 51 (2004)

**Impact Factor : 2.511**

5. A correlation and Regression Studies

S.V. Mahajan, Savita Khare and V.S. Shrivastava

Ind. J. Env. Protection 25,254 (2005)

6. Effect of Industrial Waste on Clay Minerals :XRD and SEM analysis

S.V. Mahajan, Savita Khare and V.S. Shrivastava

Material Science Research India , 3,75 S.V. Mahajan, Shavita Khare

and V.S. Shrivastava

International J Chem . Science., 3,221 (2005)