

<b>BIO-DATA</b>	
<b>Name</b>	Dr. Savita Khare
<b>Designation</b>	Professor
<b>Educational Qualifications</b>	M.Sc., M.Phil. & Ph.D.
<b>Date of Birth</b>	20 <sup>th</sup> July 1963
<b>Address</b>	<b>Official</b> School of Chemical Sciences Takshashila Campus Devi Ahilya Vishwavidyalaya Indore (M.P.) Pin- 452 001
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<b>Academic Profile</b>	<b>Lecturer</b> : 1990-1995 <b>Senior Lecturer</b> : 1995- 2000 <b>Reader</b> : 2000- 2008 <b>Professor</b> : 2008- Contd.
<b>Administrative Profile</b>	<ul style="list-style-type: none"> <li>• Member of Board of Studies, D. A. University, Indore</li> <li>• In charge of SC/ST Fellowship</li> <li>• Member of Anti–Ragging Committee</li> </ul>
<b>Awards/Fellowships/Recognition</b>	<ul style="list-style-type: none"> <li>• <b>M. P. Young Scientist” Award by MAPCOST, Bhopal (M.P.) (1990)</b></li> <li>• <b>Certificate of Appreciation” from American Chemical Society, Publications for valuable Contribution (2011)</b></li> </ul>
<b>Research Area</b>	Research interest includes the synthesis of homogeneous and heterogeneous catalysts of transition metal complexes, mechanistic studies of oxidation reaction viz. epoxidation, Hydroxylation, oxidation of hydrocarbons catalyzed by transition metal complexes, model studies of metalloenzymes and the development of new reagents for the oxidation of organic molecules. Inorganic ion-exchangers are used as support and Environmental pollution.
<b>Research Guidance</b>	<b>Annexure I</b>
	<b>M.Phil.</b> : 04 <b>Ph.D. Awarded</b> : 04 <b>Ph.D. Registered</b> : 04

<b>Projects</b>	<b>Annexure II</b>
	02
<b>Membership of Societies</b>	<ul style="list-style-type: none"> <li>• Life member of Indian Science Congress Association (ISCA)</li> <li>• Life member of Chemical Research Society of India (CRSI)</li> <li>• Life member of Indian Council of Chemists (ICC)</li> <li>• Life member of Catalysis Society of India (CSI)</li> <li>• Life member of Materials Chemistry (SMC)</li> </ul>
<b>Significant Activities</b> (Invited Talks/ Resource Person/Sessions Chaired/ students achievements etc)	<ul style="list-style-type: none"> <li>• Synthesis and characterization of <math>\alpha</math>-zirconium phosphate supported transition metal Schiff base complexes for the oxidation of hydrocarbons, International Conference on "Recent Trends in chemical science", February 15-17, 2018, Jiwaji university, Gwalior (M.P.).</li> <li>• Oxidation of Cyclohexene Catalyzed by transition-metal substituted <math>\alpha</math>-titanium arsenate as catalysts, Workshop on Surface Science-2014, March 20-24, 2014, Christian Eminent College, Indore</li> <li>• An Overviews of Catalysis in Chemistry, 2015, Gujarati College, Indore</li> <li>• Oxidation of Hydrocarbons Catalyzed by Transition Metal Complexes 28<sup>th</sup> Annual Conference of Indian Council of Chemists (ICC), December, 1-3, 2009, Patan (Gujarat).</li> </ul>
<b>Research Publications</b>	<b>Annexure III</b>
	<ul style="list-style-type: none"> <li>• <i>National</i> : 17</li> <li>• <i>International</i> : 14</li> <li>• <i>Conferences/ Seminars/ Workshops</i> : 50</li> </ul>

**Research Guidance**

***M.Phil. : 04***

1. Miss Leen Naik (1991) : Oxidation of olefins using Mn (IV) Schiff base Complexes as catalysts.
2. Mrs. Abha Choure (1992) : Isolation, Characterisation and Catalytic behavior of Mn (III) Template Complexes.
3. Miss Manishi Misra (1992) : Synthesis and Characterisation of some Cu (II) Complexes of 2-Arylhydrozono-1-phenylamino butane 1,5 Dione.
4. Miss Vinita Gupta (1993) : Synthesis and Characterisation of some Nitro substituted hydrozones.

***Ph.D. Awarded : 04***

1. Dr. Sandeep Shrivastava (2002) : Hydrocarbon Activation Using Inorganic Ion-exchanger as Catalysts
2. Dr. S.V. Mahajan (2004) : Physical, Organic and Metallic Studies of Industrial Wastes: An Inventory and Modelling
3. Dr. Rajendra Chokhare (2012) : Epoxidation of Olefins Catalysed by Metal-Salen Intercalated in  $\alpha$ -Zirconium Phosphate
4. Dr. Priti Shrivastava (2016) : Study on Alkane Oxidation Catalysed by Transition-Metal Supported Heterogeneous Catalysts.

***Ph.D. Registered : 04***

***Ph. D. Submitted : 01***

## Annexure II

S. No.	Name of Funding Agency	Name of The Scheme	Programme Title	Year of Funding	Duration	Amount Sanctioned	Status: Ongoing/Completed
1	C. S. I.R. New Delhi	Hydrocarbon Activation Using Inorganic Ion-exchanger as Catalysts. (Principle Investigator)		1993	3 Yrs	2, 10,000/-	Complete
2	C. S. I.R. New Delhi	Synthesis, Characterisation, Chromatographic resolution and Electrochemical Studies on N-phenylsulphamoyl pyridino-arylazopyrazoles. (Co-Investigator)		1992	4 Yrs	4, 04,295/-	Completed

**List of publications of Dr. Savita Khare**

1. Selective oxidation of ethylbenzene to acetophenone over Cr(III) Schiff base complex intercalated into layered double hydroxide,  
J. S. Kirar and S. Khare,  
Appl. Organometal. Chem., (2018) 4408.  
**Impact Factor: 3.581**
2. Cu(II) Schiff base complex intercalated into layered double hydroxide for selective oxidation of ethylbenzene under solvent-free conditions,  
J. S. Kirar and S. Khare,  
RSC Adv. 8 (2018) 18814.  
**Impact Factor: 2.936**
3. Catalytic liquid phase oxidation of cyclohexane with tert-butylhydroperoxide over transition metal exchanged  $\alpha$ -zirconium phosphate, S. Khare, P. Shrivastava, R. Chokhare,  
J. S. Kirar and S. Parashar,  
Indian J. Chem. Sec A, 57 (2018) 427.  
**Impact Factor: 0.566**
4. Oxidation of benzyl alcohol in slurry phase over nanoporous ZrV<sub>2</sub>O<sub>7</sub> catalyst and determination of reaction mechanism using DFT.  
S. K. Joshi, N. Sohani, S. Khare, M. S. Batra, R. Prasad,  
Asian J. Chem. 30 (2018) 1503.  
**ISSN: 0975-427X**
5. Catalytic performance of Metal-Salen intercalated into  $\alpha$ -zirconium phosphate in solvent-free liquid phase oxidation of cyclohexane  
S. Khare, P. Shrivastava, R. Chokhare, J. S. Kirar, S. Parashar,  
Journal of Porous Material, 24 (2017) 855.  
**Impact Factor: 1.624**
6. Catalytic oxidation of cyclohexene by  $\alpha$ -zirconium phosphate intercalated Mn(Salen) using 70% tert-butylhydroperoxide as an oxidant  
S. Khare, P. Shrivastava, R. Chokhare, J. S. Kirar, S. Parashar,  
Indian Journal of Chemistry, 55A, (2016) 1449.  
**Impact Factor: 0.494**
7. Solvent-free oxidation of cyclohexane over covalently anchored transition-metal salicylaldehyde complexes to  $\alpha$ -zirconium phosphate using tert-butylhydroperoxide  
S. Khare and P. Shrivastava,  
Journal of Molecular Catalysis A: Chemical. 411 (2016) 279.  
**Impact Factor: 3.93**

8. Liquid phase solvent-less cyclohexane oxidation catalyzed by covalently anchored transition-metal Schiff base complex on  $\alpha$ -titanium phosphate  
S. Khare and P. Shrivastava,  
Catalysis Letters. 146 (2016) 319.  
**Impact Factor: 2.799**
9. Heterogeneous catalyst Mn(salicylalimine) complex covalently bonded to  $\alpha$ -titanium phosphate: Synthesis, characterization and catalytic activity for oxidation of cyclohexane  
S. Khare, P. Shrivastava, J. S. Kirar and S. Parashar,  
Indian Journal of Chemistry, 55A (2016) 403.  
**Impact Factor: 0.494**
10. Liquid phase solvent-free oxidation of styrene over iron zirconium phosphate using *tert*-butylhydroperoxide as an oxidant.  
S. Khare, R. Chokhare, P. Shrivastava and J. S. Kirar  
Indian Journal of Chemistry, 54A (2015) 1032.  
**Impact Factor: 0.729**
11. Epoxidation of cyclohexene Catalysed by Homogeneous Fe(Template)C1 Complexes.  
S. Khare, P. Shrivastava and J. S. Kirar  
Asian Journal of Chemical and Environmental Research, 6(2013)1.  
**ISSN No. :09743049**
12. Hazardous metals by ICP-AES and their bio-accumulation, correlation and regression.  
S. V. Mahajan, **Savita Khare** and V.S. Shrivastava  
**Asian Journal of Chemical and Environmental Research**, 5 (2012) 51.  
[ISSN No. : 09743049]
13. Oxidation of cyclohexene catalyzed by Cu(Salen) intercalated  $\alpha$ -zirconium phosphate using dry *tert*-butylhydroperoxide  
S. Khare, R. Chokhare  
Journal of Molecular Catalysis A: Chemical 353–354 (2012) 138.  
**Impact Factor: 3.93**
14. Detection and quantification of organics in ground water by FTIR and GC-MS in and around GIDC, Ankaleshwar.  
S. V. Mahajan, S. Khare and V.S. Shrivastava  
Asian Journal of Chemical and Environmental Research, 4 (3-4) (2011) 56-62.  
[ISSN No. : 09743049]
15. Synthesis, characterization and catalytic activity of Fe(Salen) intercalated  $\alpha$  -zirconium phosphate for the oxidation of cyclohexene  
S. Khare, R. Chokhare  
Journal of Molecular Catalysis A: Chemical 344 (2011) 83.  
**Impact Factor: 3.93**
16. Hazardous metals in pesticides industrial wastes and their correlation and regression, S. V. Mahajan, Savita Khare and V.S. Shrivastava  
Asian Journal of Chemical and Environmental Research, 4 (2011) 20.  
[ISSN No. : 09743049]

17. Spectrophotometric detection method of micro amount of nitrite in water samples.  
S. Khare V. S. Shrivastava and S.V. Mahajan  
Journal of Environmental Research and Development, 3 (4) (2009) 1164.  
**Impact Factor: 0.607**
18. Study of Manganese (II) supported Titanium Tungstate as catalyst for epoxidation of cyclohexene with dry TBHP.  
S. Khare and Rajendra Chokhare  
Journal of Environmental Research and Development, 2(4) (2008) 537.  
**Impact Factor: 0.607**
19. Epoxidation of cyclohexene Catalysed by Mn(II) supported on  $\alpha$ -titanium arsenate as catalyst and dry TBHP as an oxidant,  
S. and S. Shrivastava,  
Journal of Indian Chemical Society, 83 (2006) 813.  
**Impact factor: 0.192**
20. Epoxidation of cyclohexene catalysed by  $\alpha$ - ZrCr(III)P with dry TBHP as an Oxidant, (Full Paper)  
S. Khare and R. Chokhare,  
Proc. National Conference on Chemical Engineering and Environment: Current Trends And Issues (NCCEECTI), (2006)172.
21. A Correlation and Regression Study,  
S. V. Mahajan, S. Khare and V.S. Shrivastava,  
Indian Journal of Environmental Protection, 25(3) (2005), 254.  
**Impact factor-5.56**
22. Effect of industrial waste on clay minerals; XRD and SEM analysis,  
S.V. Mahajan, S. Khare and V.S. Shrivastava and,  
Material Science Research India, 3(1) (2005) 75.  
**Impact factor: 0.789**
23. A Statistical Study on the Physico-chemical Characteristics of Industrial wastewater,  
S. V. Mahajan, S. Khare and V.S. Shrivastava,  
International Journal of Chemical Science, 3 (2005) 221.  
**Impact factor: 1.895**
24. Synthesis, Characterization and Evaluation of TiRu(III)W for Epoxidation of Cyclohexene,  
S. Shrivastava, S. V. Mahajan and S. Khare,  
Oriental Journal of Chemistry, 20(2004), 611.  
**[ISSN No. : 0970-020X]**
25. Epoxidation of cyclohexene catalyzed by transition-metal substituted  $\alpha$ -titanium arsenate using *tert*-butylhydroperoxide as an oxidant,  
S. Khare and S. Shrivastava,  
Journal of Molecular Catalysis A: Chemical, 217 (2004), 51.  
**Impact Factor: 3.93**

26. Epoxidation of olefins using a CrO<sub>3</sub>/TBHP system,  
D. D. Agarwal, **S. Shrivastava**, and P. Chaddah,  
**Polyhedron**, 4 (1990) 487.  
**Impact factor: 2.067**
27. Epoxidation of olefins catalysed by Fe(III) schiff base complexes as catalyst,  
D. D. Agarwal, R. Jain, R. P. Bhatnagar and **S. Shrivastava**,  
Journal of Molecular Catalysis, 59(1990), 385.  
**Impact factor: 2.874]**
28. Epoxidation of olefins catalysed by Mn(III) schiff base complexes as catalysts,  
D. D. Agarwal, R. Jain, R. P. Bhatnagar and S. Shrivastava,  
Journal Chemical Society Perkins Trans-II, 989(1990).  
**Impact factor: 2.874**
29. Synthesis and characterisation of some peroxo complexes of zirconium,  
D. D. Agarwal, R. Jain, R. P. Bhatnagar and S. Shrivastava,  
Polyhedron, 9 (1990) 1405.  
**Impact factor: 2.067**
30. Synthesis, characterization and catalytic behaviour of thorium peroxo complexes,  
D. D. Agarwal, S. Shrivastava and P. Chaddah,  
Polyhedron, 9 (1990) 1401  
**Impact factor: 2.067**
31. Synthesis of some cis-dioxomolybdenum complexes and their use in the epoxidation  
of olefins,  
D. D. Agarwal, **S. Shrivastava**,  
**Polyhedron**, 7 (1988), 2569.  
**Impact factor: 2.067**