

## Profile of Dr. Gajanan Rashinkar



### 1) Personal Details:

**Full Name** : Dr. Rashinkar Gajanan Shankarrao

**Current Designation** : Assistant Professor in Organic Chemistry

**Subject Specialization** : Organic chemistry

**Date of Birth** : 15<sup>th</sup> October, 1975

**Nationality** : Indian

**Sex** : Male

**Present Address** : Dr. Rashinkar Gajanan Shankarrao

Department of Chemistry,

Shivaji University, Kolhapur-416 004.

**Residential Address** : Dr. Rashinkar Gajanan Shankarrao

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Morewadi,

Kolhapur-416 013, Maharashtra.

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## 2) Academic Qualification

Sr. No.	Examination Passed	Year of Passing	Name of Board/ university	Subjects Taken	Percentage of Marks Obtained	Grade
1	M. Sc.	1998	Shivaji University, Kolhapur	Organic Chemistry	64 %	<b>I</b>
2	Ph.D.	2010	Shivaji University, Kolhapur	Organometallic Chemistry	-----	-----
3	SET	1998	University of Pune	Chemistry	----	----
4.	NET (JRF)	2001	CSIR, New Delhi	Chemical Sciences	-----	----
<b>3</b>	<b>Title of Ph.D. thesis</b>	<b>“Synthetic Studies in Some Biologically Active and Ferrocene Based compounds”</b>				

## 3) Research Specialization:

- Supported Ionic Liquid Phase (SILP) Catalysis
- Functionalization of Cucurbiturils
- Ferrocene Labeled molecules
- Bioactive heterocycles
- Organic synthesis using green chemistry principles
- Ionic liquids as contrast reagents for early detection of cancer

## 4) Teaching experience: 15 years

### a) UG Teaching: 05 years

1. Lecturer in New College Paranda ( 998-1999)
2. Lecturer in Chemistry at “D. B. F. Dayanand College of Arts and Science, Solapur, Maharashtra (1999-2001).
3. Lecturer in Chemistry at “Y.C College of Science,

Karad, Maharashtra (2003-2004).

**b) PG Teaching: 10 years**

1. Worked as a Lecturer in Chemistry at “P. G. Centre Shivaji University, Kegaon” Solapur (2001-2002).
2. Worked as a Lecturer in Chemistry at Department of Chemistry, Shivaji University, Kolhapur (2002-2003).
3. Working as a Assistant Professor in Organic Chemistry at Department of Chemistry, Shivaji University, Kolhapur Since 2004 till date.

**5) Research Guidance:**

1. No. of M. Phil awarded : **00**
2. No. of Ph. D. awarded : **00**
3. No. of Ph. D. submitted : **01**
4. No. of Ph. D. working : **05**
5. No. of M. Sc. Projects completed : **45**

<b>Name of Student</b>	<b>Title of Thesis</b>	<b>Registration</b>
Mr. Vipul Gaikawad	Synthesis and Applications of Ferrocene Functionalized Compounds	2011
Mr. Rajanikant Kurane	Development of Novel Supported Ionic Liquid Phase Catalysts for Efficient Organic Transformations	2011
Mr. Jagnnath Jadhav	Synthetic Studies in Azaheterocyclic Compounds	2011
Mr. Sharanabasappa Khanapure	Synthetic Studies in Metallocenes	2012
Mr. Amol Patil	Synthetic studies in hydrotropic solutions	2012
Miss. Megha Jagdale	Synthetic studies using green chemistry principles	2012

## **6) Research Publication: 24**

**International: 22      National: 02**

### **Details of Publications**

- 1) Facile access to 3- cyano-4-azaindoles via Modified Madelung synthesis, Jagannath Jadhav, Sharanabasappa Khanapure, Rajanikant Kurane, Rajashri Salunkhe, Gajanan Rashinkar\*, **Tetrahedron Letters**, 2013, 54, 6858–6863.
- 2) Synergistic catalysis by an aerogel supported ionic liquid phase (ASILP) in the synthesis of 1,5-benzodiazepines, Rajanikant Kurane, Jagannath Jadhav, Sharanabasappa Khanapure, Rajashri Salunkhe, Gajanan Rashinkar\*, **Green Chemistry**, 2013, 15, 1849–1856.
- 3) Remarkable anti-breast cancer activity of ferrocene tagged multi-functionalized 1,4-dihydropyrimidines, Jagannath Jadhav, Aarti Juvekar, Rajanikant Kurane, Sharanabasappa Khanapure, Rajashri Salunkhe, Gajanan Rashinkar\*, **European Journal of Medicinal Chemistry**, 2013, 65, 232-239.
- 4) Organocatalytic synthesis of 2-substituted quinoxalin-4(3H)-ones using dual activation strategy, Jagannath Jadhav, Sharanabasappa Khanapure, Rajashri Salunkhe, Gajanan Rashinkar\*, **Applied Organometallic Chemistry**, 2013, 27, 486-488.
- 5) A viable synthesis of Ferrocene tethered NHC-Pd Complex via supported ionic liquid phase catalyst and its Suzuki-Coupling activity, V. Gaikwad, R. Kurane, J. Jadhav, R. Salunkhe, G. Rashinkar\*, **Journal of Applied Catalysis A: Chemical**, 2013, 451, 243-250.
- 6) Intramolecular O-arylation route to 2-substituted benzoxazoles mediated by ferrocene tethered polymer supported ionic liquid phase catalyst, Jagannath Jadhav, Vipul Gaikwad, Rajanikant Kurane, Rajashri Salunkhe, Gajanan Rashinkar\*, **Tetrahedron**, 2013, 69, 2920-2926.
- 7) Palladium supported hybrid cellulose–aluminum oxide composite for Suzuki–Miyaura cross coupling reaction, Arjun Kumbhar, Sanjay Jadhav, Santosh Kamble, Gajanan Rashinkar, Rajashri Salunkhe\*, **Tetrahedron Letters**, 2013, 54,1331–1337.

- 8) Hydrotrope: Green and rapid approach for the catalyst-free synthesis of pyrazole derivatives, M. S. Barge, S. B. Kamble, A. S. Kumbhar, G. S. Rashinkar, R. S. Salunkhe\*, **Monatshefte fur Chemie**, 2013, 144, 1213-1218.
- 9) DABCO entrapped in agar-agar: A heterogeneous gelly catalyst for multi component synthesis of 2-amino-4H-chromenes, Shital Shinde, Gajanan Rashinkar, Rajashri Salunkhe\*, **Journal of Molecular Liquids**, 2013, 178, 122-126.
- 10) Pd-Catalyzed Cascade Reaction for the Synthesis of 2-Substituted Indoles. Jagannath Jadhav, Vipul Gaikwad, Rajanikant Kurane, Rajashri Salunkhe, Gajanan Rashinkar\* **Synlett**, 2012, 23, 2511-2515.
- 11) Ultrasound promoted efficient and green synthesis of  $\beta$ -amino carbonyl compounds in aqueous hydrotropic medium. Santosh Kamble, Gajanan Rashinkar, Arjun Kumbhar, Madhuri Barge and Rajashri Salunkhe\*, **Ultrasonics Sonochemistry**, 2012, 19, 812–815.
- 12) Ferrocene tagged functional polymer: A robust solid-phase reagent for O-demethylation. Rajanikant Kurane, Vipul Gaikwad, Jagannath Jadhav, Rajashri Salunkhe, Gajanan Rashinkar\*, **Tetrahedron Letters**, 2012, 53, 6361–6366.
- 13) Brønsted Acid Hydrotrope Combined Catalyst for Environmentally Benign Synthesis of Quinoxalines and Pyrido[2,3-b]pyrazines in Aqueous Medium. Arjun Kumbhar, Santosh Kamble, Madhuri Barge, Gajanan Rashinkar, Rajashri Salunkhe\*, **Tetrahedron Letters**, 2012, 53, 2756-2760.
- 14) Silica Tethered Pd-DABCO Complex: An Efficient and Reusable Catalyst for Suzuki–Miyaura Reaction, Arjun Kumbhar, Santosh Kamble, Gajanan Rashinkar, Rajashri Salunkhe\*, **Catalysis Letters**, 2012, 142, 1388-1396.
- 15) Hydrotrope Induced Catalysis in Water: A Clean and Green Approach for the Synthesis of Medicinally Relevant Bis(indolyl)methanes and 2-Aryl benzimidazoles, Santosh Kamble, Gajanan Rashinkar, Arjun Kumbhar, Kavita Mote and Rajashri Salunkhe\*, **Synthetic Communications**, 2012, 42, 756-766.
- 16) Hydrotrope Induced Efficient Synthesis of 1, 8-Dioxo-Octahydroxanthene in Aqueous Medium, Santosh Kamble, Gajanan Rashinkar, Arjun Kumbhar, Santoshkumar Pore and Rajashri Salunkhe\*, **Green Chemistry Letters and Reviews**, 2012, 5, 101-107.

- 17) An expeditious synthesis of homoallylic alcohols using bronsted acidic supported ionic liquid phase catalyst with pendant ferrocenyl group, G.S.Rashinkar, S.B.Kamble, A.S.Kumbhar and R.S. Salunkhe\*, **Catalysis Communication**, 2011, 12, 1442-1447.
- 18) Facial Knoevenagel and domino Knoevenagel/Micheal reaction using Gel Entraped Base Catalysis. Shital Shinde, Gajanan Rashinkar, Arjun Kumbhar, Santosh Kamble and R. S. Salunkhe\*, **Helvetica Chemica Acta**, 2011, 94, 1943-1957.
- 19) Ferrocene Lebelled Supported Ionic Liquid Phase (SILP) containing organocatalytic Anion for Multi-component synthesis, Gajanan Rashinkar, Rajashri Salunkhe, **Journal of Molecular Catalysis A: Chemical**, 2010, 316, 146-152.
- 20) Facile Synthesis of Ferrocenylamines in aqueous hydrotropic solution using microwaves, G. S. Rashinkar, S. B. Kamble, A. S. Kumbhar, R. S. Salunkhe\*, **Transition Metal Chemistry**, 2010, 35, 185-190.
- 21) Aqueous Extract of pericarp of Sapindus trifoliatius fruit: A novel green catalyst for aldimine synthesis, S. B. Pore, G. S. Rashinkar, K. B. Mote, R. S. Salunkhe , **Chemistry and Biodiversity**, 2010, 7, 1796-1800.
- 22) Amine Exchange Reactions in Ionic Liquid, G. S. Rashinkar, S. B. Pore & R. S. Salunkhe, **Phosphorus, Sulfur and Silicon**, 2009, 184, 1750-1758.
- 23) An efficient synthesis of novel 2-amino-4-aryl-6-ferrocenyl pyrimidines, G. S. Rashinkar, S. B. Pore, K. B. Mote, R. S. Salunkhe, **Indian J. Chem. Section B**, 48B, 2009,606-610.
- 24) Enantioselective Synthesis of Diarylmethanols using Microbial Transformation, P. R. Salokhe, G. S. Rashinkar & R. S. Salunkhe, **Indian J. Chem. Section B**, 49, 2009, 199-202.

### 7) Conferences Attended:

Name of Author/s	Year	Title of Paper	Name of symposia / conference	Sponsoring agency
G. S. Rashinkar, B.	23-25	Alkaline hydrolysis of	International	Shivaji
A. Shelar, M. A.	Jan.	a new cephalosporin	Symposium on Drug	University,
Shelar, P. Gaikwad,	2003	derivative: A HPLC	Delivery and Process	Kolhapur
N. P. Hilage, A. R.		and proton NMR	Reserach	

Shelar		study		
<b>G. S. Rashinkar</b>	5,6 Sept. 2003	Attended	Training Workshop in Chemistry for College Teachers	Shivaji University, Kolhapur
<b>G. S. Rashinkar</b>	23-25 Jan. 2006	Attended	National Seminar on Advanced Technologies (NASMAT-2006)	Shivaji University, Kolhapur
<b>G. S. Rashinkar</b>	11, 12 March, 2006	Attended	Workshop on Atomic Structure and Chemical Bonding	Shivaji University, Kolhapur
<b>G. S. Rashinkar</b>	22 <sup>nd</sup> Sept. 2006	Attended	A work shop on “ Green Chemistry”	M. S. University, Baroda, India
<b>G. S. Rashinkar,</b> R.S. Salunkhe	6,7 Sept. 2006	Synthesis of Fullerene based $\beta$ - aminopropiophenone	Campaign on University Research And training Court- 2006	Shivaji University, Kolhapur.
<b>G. S. Rashinkar,</b> B.V. Tamhankar, A. S. Sawant, R. S. Salunkhe	3-5 Oct. 2008	Amine exchange reactions ionic liquid	Recent Advances in Chemical Sciences	Govt. Dungar College, Bikaner.
<b>G. S. Rashinkar, S.</b> B. Pore, K. B. Mote, R. S. Salunkhe	1 – 2 Feb. 2008	Amine exchange reaction liquid	National seminar on “ Synthesis of new materials for industrial applications	Dept. of Chem. Shivaji University, Kolhapur.
<b>G. S. Rashinkar, S.</b> B. Pore, K. B. Mote, R. S. Salunkhe	9-11 Dec. 2008	An efficient synthesis of novel 2-amino-4- aryl-6-ferrocenyl pyrimidines	International Conference on Nanomaterials and Applications-2008	Dept. of Chem. Shivaji University, Kolhapur.

<b>G.S. Rashinkar, S. B. Pore, K. B. Mote, A. S. Kumbhar, S. B. Kamble, S. R. Shinde, R. S. Salunkhe</b>	23 - 24 Dec. 2009	Ferrocene labeled supported ionic liquid phase (SILP) catalyst for multi-component synthesis	National Seminar on Advanced Synthetic Methodologies and Functional Materials	Dept. of Chem. Shivaji University, Kolhapur.
<b>G. S. Rashinkar, S. B. Kamble, A. S. Kumbhar, R. S. Salunkhe</b>	17-18 Aug. 2010	Characterization of immobilized ionic liquid like units in supported ionic liquid phase (SILP) catalysts by Raman spectroscopy	National Seminar on Advances in Coordination Chemistry	Rajashri Chatrapati Shahu College, Kolhapur
<b>G. S. Rashinkar, S. B. Kamble, A. S. Kumbhar, R. S. Salunkhe</b>	14-15 Oct. 2010	Ferrocene tethered Bronsted supported ionic liquid phase catalyst for synthesis of homoallylic alcohols	National Conference on Recent Trends in Chemistry	YCIS, Satara
<b>G. S. Rashinkar, S. B. Kamble, A. S. Kumbhar, R. S. Salunkhe</b>		New Task Specific Supported Ionic Liquid Phase Catalyst For o-Demthylation	National conference on Sustainable Chemistry: Challenges and Opportunities	Dr. Babasaheb Ambedkar Marathwada University, Sub-campus Osmanabad,
Shital Shinde, Prabha Salokhe, Madhuri Barge, Gajanan Rashinkar & <b>R.S.Salunkhe</b>		A heterogeneous gelly catalyst for multi-component synthesis of 2-amino-4-H chromenes	National seminar on recent advances in synthetic chemistry and nanomaterials	Shivaji University, Kolhapur



Gajanan Rashinkar & R.S.Salunkhe	A viable synthesis of ferrocene tethered NHC-Pd complex via supported ionic liquid phase catalyst and its Suzuki coupling activity	2nd International Indo German Symposium on Green Chemistry and Catalysis for Sustainable Development	ICT, Mumbai
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**8) Research Projects: Two (one completed, one ongoing)**

Title of Project / Scheme	Funding Agency	Funds received	Date of starting	Date of ending
Extractive column chromatographic method for the determination of toxic metals	UGC	50000/-	1 <sup>st</sup> April 2004	31 <sup>st</sup> March 2006
Development of Novel Supported Ionic Liquid Phase (SILP) Catalysts for Efficient Organic Transformations	UGC	789000/-	1 <sup>st</sup> July 2011	31 <sup>st</sup> Dec. 2014
“Designing Magnetic Nanoparticle Supported Ionic Liquid Phases (MNPSILPs) With Pendant Ferrocenyl Group For Catalytic Applications”	DST-SERB	27,00,000/-	Dec. 2014	----

- 9) Honors and rewards:**
1. “Young Scientist Award” at National Conference on Recent Advances in Chemical Sciences held at Dungar College, Bikaner (2008).
  2. “Best Poster presentation award” at National Conference on Synthesis of New Materials for Industrial Applications, held at Shivaji University, Kolhapur (2008).

3. "Best Poster presentation award" at National Conference on Recent Trends in Chemistry held at YCIS, Satara (2010).