



## Arika Kotha

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Academics						
	Exams	Institute	Board	Year of Passing	Result	Class
•	Ph.D	National Chemical Laboratory	University of Pune	1997	--	--
•	B.Ed	Adarsh College, Pune	University of Pune	1993	74 %	1st Class with distinction
•	M.Sc.	Department of Chemistry, UoP	University of Pune	1987	68 %	1st Class
<b>8.</b>	Teaching Experience					
	Institution	Post Held	Period			
	Department of Engineering Sciences, Maharashtra Academy of Engineering, Alandi, (D) Pune-421105	Assistant Professor	June 2008 to December 2010			
		<b>Associate Professor &amp; FE coordinator</b>	Jan 2011- till date			
	Sinhagad College of Science	Lecturer	August 2003 to May 2008			

**Total teaching experience : 13 years**

## Research Experience

**August 1987 to July 2003 at National Chemical Laboratory (NCL)** in the following capacities

- August 1987 to December 1991: **Project Associate** at NCL. Worked on the following projects
  - Sulphochlorination of polyethylene- sponsored by m/s Shriram Fibres
  - Thermotropic Liquid Crystalline polymers funded by Department of Science and Technology, New Delhi
  - Synthesis and Characterisation of Photoresists funded by Department of Electronics, New Delhi

Expertise developed: Synthesis of Polymers by different polymerization techniques; synthesis of diazonaphthoquinone sensitizers for photoresists; Characterization techniques – UV, IR Spectrophotometry and Mercury intrusion Porosimetry.

- January 1992 to June 1997: **Senior Research Fellow.** *Beaded Macroporous Polymers: Synthesis and Characterisation of Immobilised Penicillin G acylase* Ph.D. research work under the guidance of Dr. S.Ponrathnam.

The immobilized Pen G acylase used for the production of 6-Amino Penicillanic Acid, an important intermediate in the production of semi synthetic penicillins in the pharmaceutical industries. Four publications in international journals and eight patents were filed

- July 1997 to June 2003 : **Research Associate**

Projects worked on

- Novel Affinity Chromatography Matrices
- Enzyme Mediated Polymerisation

**Total Research experience : 16 years**

### 10. *Sponsored Research Projects:*

No.	Title	Sponsoring Agency	Total Grant Sanctioned	Duration
1	Chemical and Biological Removal of Pollutants from waste water	BCUD, UOP	2.0 Lakhs (April 2011-2013)	2 years (completed)

**11. Workshops /conferences/ symposiums/Seminar attended**

Sl. No.	Event	Level	Date	Organised by
1.	NPTEL Workshop		09 October 2015	IIT Madras at MITAOE
2.	6 th National Conference on Multidisciplinary Research in Science and Engineering 2015	National	05-06 June 2015	Dept of Engg Sciences, MITAOE
3.	Workshop on `Leadership development`	College level	05 & 14 August 2015	MITAOE
4.	Training on Prevention of Sexual Harrassment	State level	28 April 2015	ICC, SP Pune University
5.	STTP `Innovative trends Towards Excellence in CETP Management`	State level	06-10 April 2015	Sinhgad College of Engineering
6.	National Conference `Advances in chemical Sciences-wrt Molecular Spectroscopy, Material Science and Organic Electronics`	National	19 & 20 December 2014	Fergusson College
7.	Frontiers in Physical, Chemical and biological Sciences (Poster Presented)	National Conference	4 to 6 October 2013	Department of Chemistry, University of Pune
8.	Author Workshop national live webex by Keith Lambert	National Webex	Live 11 September 2013	Elsevier Publishing Connect
9.	Innovations 2013	State level	18 April 2013	JSPM Rajarshi Shahu College, Tathawade
10.	International Conference Emerging Trends in Chemical Sciences 2012	International	02 to 04 November 2012	School of Chemical Sciences, Solapur University
11.	Worksop on Syllabus Implementation	Pune University	30 July 2012	DY Patil COE, Akurdi
12.	Innovations in Science Teaching	National Training Programme	21 to 25 May 2012	NITTTR Extension Centre, Pune
13.	Innovation-2012	Regional	19 <sup>th</sup> -20 <sup>th</sup> Mar	Maharashtra

		conference	2012	Academy of Engineering, Alandi
14.	Relevance of Research in Teaching-Learning Process	National Seminar	24 <sup>th</sup> Mar 2012	MAE, Alandi
15.	Innovation-2010	Regional conference	26 <sup>th</sup> -27 <sup>th</sup> Oct 2010	SCOE, Pune
16.	Molecular Electronics	Workshop	8 <sup>th</sup> Aug 2009	Cummins College of Engg for Women, Pune
17.	Scientific and Technical Communication Skills	Workshop	8 November 2008	Maharashtra Academy of Engineering, Alandi
18.	Advances in Analytical Techniques	National Workshop	10 <sup>th</sup> -12 <sup>th</sup> Nov 2007	Nowrosjee Wadia College, Pune.
19.	Emerging Frontiers in Science	Faculty Development Programme	15 <sup>th</sup> -16 <sup>th</sup> Sep 2007	Sinhgad College of Science
20.	B.Sc. Biotechnology revised syllabus	Workshop	8 <sup>th</sup> July 2007	Modern College Pune
21.	Advanced Analytical Techniques	Training programme	5 <sup>th</sup> – 7 <sup>th</sup> Nov 2006	Singad College of Engineering and Chemito Industries Pvt Ltd., Nashik
22.	Recent Advanced in Organic Synthesis	Workshop	14 <sup>th</sup> June 2006	Sinhgad College of Engineering
23.	Implementation of new Pattern in chemistry at the undergraduate level'	Workshop	17 <sup>th</sup> Feb 2004	Planning and Development B.O.S in Chemistry at ACS college, Sonai, Ahmednagar
24.	Biotechnology-an emerging Frontier for the Indian Pharmaceutical Industry'	National Seminar	12 <sup>th</sup> October 2003	Sinhgad College of Pharmacy

**12. Organizing Committee Member for:**

Sl. No.	Event	Date	Level
1.	SciCon '16	13 February 2016	Interschool and College event
2.	SciCon '15	14 February 2015	Interschool and College event
3.	SciCon 2014 (Coordinator)	22 Feb 2014	Interschool and College event
4.	Parents meet Coordinator ( NBA committee)	22 to 24 March 2013	College level
5.	ROBOCON-2012 (Prize committee member)	4 <sup>th</sup> - 6 <sup>th</sup> March 2013	National event
6.	National Science Day (Coordinator)	1 March 2013	Inter College event
7.	ROBOCON-2012 (Prize committee member)	27 <sup>th</sup> - 3 <sup>rd</sup> March 2012	National event
8.	Nakshatra-12 (ASG) Prize Distribution Committee	22 <sup>nd</sup> Jan 2012	College level
9.	Nakshatra-11 (ASG) Prize Distribution Committee	17 <sup>th</sup> -18 <sup>th</sup> March 2012	College level
10.	ROBOCON-2010 (Prize committee member)	1 <sup>st</sup> – 6 <sup>th</sup> March 2010	National event
11.	An Educational Tour to First Year Engineering Students to 'Appropriate Rural Technological Institute', Phaltan	28 <sup>th</sup> March 2009	College level
12.	Science Exhibition as a part of 'Nakshatra 2009' for all the students	1 <sup>st</sup> March 2009	College level
13.	ROBOCON-2009 (Help desk)	6 <sup>th</sup> – 8 <sup>th</sup> March 2009	National event
14.	Model Making Competition for First Year Engineering Students	16 <sup>th</sup> Oct2008	College level
15.	Two day workshop on Recent Advanced in Organic Synthesis at Sinhgad College of Engineering		College level
16.	Industry Academia Forum- annual four day Seminar at Sinhgad College of Science	January 2004-2008	College level

17.	Emerging Frontiers in Science'- two day Faculty Development Programme at Sinhgad College of Science	15 <sup>th</sup> -16 <sup>th</sup> Sep 2007	Intercollegiate level
18.	'Horizons'-annual intercollegiate Poster presentation competition at Sinhgad College	17 September 2007	Intercollegiate level

## LIST OF PATENTS AND PUBLICATIONS

1. Adsorption and expression of penicillin G acylase immobilized onto methacrylate polymers generated with varying pore generating volume, **A. Kotha**, L.Selvaraj, C.R.Rajan, S.Ponrathnam, K.K.Kumar, G.R. Ambekar and J.G.Shewale, Appl.Biochem.Biotechnol., 30, 297-302, 1991.
2. A process for the preparation of non melting liquid crystalline polymers, **A. Kotha**, A. Lodha, J.Mathew, R.S.Ghadage, C.R.Rajan and S.Ponrathnam, Indian Patent 908/DEL/1993.
3. A process for the preparation of novel macroporous glycidyl copolymer beads useful as a matrix for anchoring hydrophobic biomolecules, **A. Kotha**, C.R.Rajan and S.Ponrathnam, Indian Patent 1085/DEL/1993.
4. A process for the preparation of hydrolytically stable macroporous beads, E. Srinivasa Rao, **A. Kotha**, S.Skaria, C.R.Rajan and S.Ponrathnam, Indian Patent 1465/DEL/1993.
5. A process for the preparation of hydrolytically stable macroporous beads, E. Srinivasa Rao, **A. Kotha**, S.Skaria, C.R.Rajan and S.Ponrathnam, Indian Patent 375/DEL/1994.
6. A process for the preparation of immobilized penicillin G acylase using novel macroporous allyl glycidyl copolymers useful for the preparation of 6-APA, E. Srinivasa Rao, **A. Kotha**, S.Skaria, C.R.Rajan and S.Ponrathnam, Indian Patent 316/DEL/1994.
7. Beaded Reactive Polymers 1. Effect of synthesis variables on pore size and its distribution in beaded glycidyl methacrylate-divinyl benzene copolymers, **A. Kotha**, C.R.Rajan , S.Ponrathnam and J.G.Shewale, Reactive Polymers, 28,227,1996.
8. Beaded Reactive Polymers 2. Immobilization of penicillin G acylase on glycidyl methacrylate-divinyl benzene copolymers of differing pore size and its distribution, **A. Kotha**, C.R.Rajan , S.Ponrathnam and J.G.Shewale, Reactive Polymers, 28,235,1996.
9. An improved process for the preparation of novel crosslinked macroporous glycidyl copolymers, **A. Kotha**, C.R.Rajan J.G.Shewale, S.K.Mujawar and S.Ponrathnam, Indian Patent 2937/DEL/1997.
10. An improved process for the preparation of immobilized D-amino oxidase, **A. Kotha**, C.R.Rajan J.G.Shewale, S.K.Mujawar and S.Ponrathnam, Indian Patent 2946/DEL/1997.
11. An improved process for the preparation of glutaryl-7-amino cephalosporanic acid, **A. Kotha**, C.R.Rajan J.G.Shewale, S.K.Mujawar and S.Ponrathnam, Indian Patent 2945/DEL/1997.
12. Beaded Reactive Polymers 3. Effect of triacrylates as crosslinkers on the physical properties of glycidyl methacrylate copolymers and immobilization of penicillin G acylase, **A. Kotha**, C.R.Rajan , S.Ponrathnam, K.K.Kumar and J.G.Shewale, Reactive Polymers, 74,191,1998.
13. Development of tailor made glycidyl methacrylate-divinyl benzene copolymers for the immobilization of D-amino oxidase from Aspergillus species 020 and its application in the bioconversion of Cephalosporin C, S.K.Mujawar, **A. Kotha**, C.R.Rajan J.G.Shewale, and

14. A process for the preparation of novel cyclodextrin bound polymer support, **A.Kotha**, S.Mule, A. Patkar, C.R.Rajan and S.Ponrathnam, Indian Patent filed NF/230/2000.
15. A process for the preparation of improved polymeric support for the purification and immobilization of proteins, D.P.Nayak, **A. Kotha**, O.S.Yemul, C.R.Rajan and S.Ponrathnam, Indian Patent filed NF/231/2000.
16. Macroporous copolymer matrix:1. Effectiveness of different diisocyanate spacer arms to bind cyclodextrins, D.P.Nayak, **A. Kotha**, O.S.Yemul, C.R.Rajan and S.Ponrathnam, Biomacromolecules, 2,1116, 2001.
17. Biocatalysis by penicillin G acylase anchored on beaded macroreticular GMA-DVB polymers : Effect of pore structure on catalytic activity, G.Ingavale, T.S.Pathak, **A.Kotha** and S.Ponrathnam, Bull.Catal.Soc. India., 2, 75 , 2003.
18. Functionalized polymer networks : Synthesis of microporous polymers by frontal polymerization, N.S.Pujari, A.S.Vishwakarma, T.S.Pathak, **A.Kotha** and S.Ponrathnam, Bull.Mater.Sci., 27(6),529, 2004.
19. Macroporous poly(2-hydroxyethyl methacrylate-co-ethylene dimethacryate) : Effect of crosslinking density and porogen on pore volume and specific surface area, T.S.Pathak, G.Ingavale, S.V.Deshpande, **A.Kotha**, C.R.Rajan and S.Ponrathnam, Proceedings of the Membrane society of Korea 2005.
20. Apparatus and Assay for testing Potency of Bio-repellent species, R. Marathe, S.S.Gore, **A.Kotha** and S.N.Joshi, Indian Patent filed 1515/MUM/2010
21. Glycidyl methacrylate divinyl benzene polymeric adsorbents for removal of o-cresol from aqueous solution, V.A.Tarange, **A.M.Kotha** and P.R.Thakur Proceedings of 6th National Conference on Multidisciplinary Research in Science & Engineering, , 1-11, ISBN: 978-93-84648-83-1, 2015