



**Dr. Anoop R. Markande**

Assistant Professor

CGBIBT

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**Education**

**Ph.D. (Microbiology)**

Department of Microbiology and Biotechnology Centre, The  
Maharaja Sayajirao University of Baroda, Vadodara, Gujarat

Feb 2014

**Master of Science (Microbiology)**

Department of Biotechnology and Microbiology,  
Karnataka University, Dharwad, Karnataka

June 2007

**Bachelor of Science (Microbiology, Chemistry and Zoology)**

Karnataka Science College, Dharwad, Karnataka

May 2005

**Specialization**

**Microbiology**

**Professional/Teaching Experience**

- Working as a Assistant Professor, CGBIBT, Uka Tarsadia University
- Helped 9 students in MSc Dissertations as an intermediate under the guidance of Prof. A.S. Nerurkar, Department of Microbiology, The M.S. University of Baroda.
- Assisted in teaching and practicals for MSc and MFSc students at Department of Microbiology, The Maharaja Sayajirao University of Baroda and MFSc students at Central Institute of Fishery Education (CIFE), Mumbai respectively.
- Done Invigilation duties for Faculty of Science, The M.S. Univ of Baroda during undergraduate level examinations.

**Research Interest**

**Microbial ecology**  
**Microbial biomolecules**  
**Bioremediation**



## Research Experience

- Worked as a Post doctoral researcher (as SRF and RA) at Central Institute of Fishery Education (CIFE), Mumbai, on NFBSFARA project funded by ICAR, Delhi: **“Capture and removal of ammonia from fish processing wastewater using Archaea”** (Feb 2014-Jul 2015)
- PhD thesis on topic **“Studies on ecophysiological potential of bioemulsifier produced by *Bacillus species*.”** at Department of Microbiology and Biotechnology Centre, The Maharaja Sayajirao University of Baroda, Vadodara-390002, Gujarat, India. (Aug 2009 – Feb 2014)
- Worked as Junior Research Fellow at Department of Microbiology and Biotechnology Centre, The Maharaja Sayajirao University of Baroda, Vadodara-390002, Gujarat, India in DST sponsored Project on **“Bioemulsifier from marine bacteria : Characterization and yield enhancement”** (Sept 2008 – Mar 2011)
- Worked as a Senior Research Fellow at Central Institute of Fishery Education (CIFE), Mumbai, on AMAAS project funded by ICAR, Delhi: **“Mapping of microbial diversity in the marine ecosystem in and around Mumbai.”** (Feb 2008 – Sept 2008)
- **M.Sc. Dissertation project :** Project work undertaken for the partial fulfillment of Master of Science (Microbiology) at PG Dept. of studies in Microbiology and Biotechnology, Karnatak University, Dharwad: **“Partial purification and biochemical characterization of protease from *Bacillus subtilis* NCIM 2713”**. (Dec 2006 - Mar 2007)

## Creditable position

### ACTIVE MEMBER OF SCIENTIFIC SOCIETIES

- 1) Association of Microbiologists of India (Life member ID: 1397 – 2008)
- 2) Society for Biological Chemists (Life member; ID: 2365)
- 3) American Society for Microbiology (Annual member 2011-15; ID: 56892383 )
- 4) The Indian Science Congress Association (Life member; ID: L26974)

## Presentations

### SCIENTIFIC POSTERS PRESENTED:

- **Markande, A.R.,** Keluskar, R.P., Mishra, S. S., Karunasagar, I. and Nayak, B. B  
“Enrichment of ammonia oxidizing archaea(AoAs) with continuous up-flow reactors from paddy field soil”  
Abstract number: P55; Presented at DAE-BRNS Life Sciences symposium-2015; organized by Bhabha Atomic Research Centre (BARC), Mumbai; February 3-5, 2015

- **Markande, A. R.,** Keluskar, R. P., Mishra, S. S. and Nayak B. B.  
“Remediation of fish processing effluent by simultaneous nitrification and denitrification using novel heterotrophs”  
Abstract number: EM81; Presented at the 55th Annual Conference of Association of Microbiologists of India; “National Conference on Empowering Mankind with Microbial Technologies (AMI – EMMT -2014)”; held at Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu from November 12-14, 2014
- **Markande, A.R.,** Mhatre,E.R., Gavade, J.N. and Nerurkar, A.S.  
“Studying the role of bioemulsifier in influencing cell surface properties of *Solibacillus silvestris* AM1”  
Presented at "The 5th Congress of European Microbiologists (FEMS 2013)" at Leipzig, Germany, from July 21-25, 2013
- **Markande, A.R.,** Gavade, J.N. and Nerurkar, A.S.  
“Effects of bioemulsifier from *Solibacillus silvestris* AM1”  
Presented at 53rd Annual Conference of Association of Microbiologists of India (AMI); International conference on “Microbial world: Recent innovations and future trends”; held at KIIT University, Bhubaneswar, Odisha from November 22-25, 2012
- **Markande A.R.,** Thakker,R.M. and Nerurkar A.S.  
“Bioemulsifier from *Solibacillus silvestris* AM1 and its ecological significance”  
“Presented at 52<sup>nd</sup> Annual Conference of Association of Microbiologists of India held at Chandigarh from November 3-6, 2011
- **Markande A.R.,** Mhatre, E.R. and Nerurkar A.S.  
“Characterization of novel bioemulsifier producing isolate, *Solibacillus silvestris* AM1 mutants”  
“Presented at 52<sup>nd</sup> Annual Conference of Association of Microbiologists of India held at Chandigarh from November 3-6, 2011
- **Markande, A.R.,** Chauhan, M.S. and Nerurkar, A.S.  
“Bioemulsifier from *Solibacillus silvestris* sp. AM1”  
Presented at the 79th annual meeting of Society of Biological Chemists (India), IISc, Bangalore; from 13-15 Dec 2010
- **Markande A. R.,** Shah B. and Nerurkar A. S.  
“Isolation and characterization of bioemulsifier producing *Bacillus* sp.”  
Presented at 50<sup>th</sup> annual conference of Association of Microbiologists of India at NCL, Pune; from 15-18 Dec 2009,  
*Awarded “Best poster” in Environmental microbiology section*

## Professional/Research Training / Conferences/Seminars/Workshops attended

### TRAININGS UNDERGONE:

2008	7 days	National training program on "Molecular and serological detection of plant viruses"	National bureau of agriculturally important microorganisms (NBAIM), Mau, UP
2007	1 month	Basics of cell line (MG63) culture & maintenance and cell proliferation assay	Tata Memorial Centre (ACTREC), Kharghar, Navi Mumbai
2006	1 month	Training in Protein Chemistry and Molecular Biology	BioGenics, Hubli
2004	1 month	In-plant training	Excel Foods Pvt. Ltd., Tarihal, Hubli
2003	1 month	Training in serological reactions and pathological testing	Cancer Institute, Nava agar, Hubli

### CONFERENCES/SEMINARS and WORKSHOPS ATTENDED

Feb 2015	National	Advances in Microbiology of Food, Agriculture, Health and Environment	Department of Atomic Energy (DAE) – BRNS Life Sciences Symposium, Bhabha Atomic Research Centre, Mumbai
Jan 2015	International	International workshop on Fish Genomics	ICAR – Central Institute of Fisheries Education, Mumbai
Nov 2014	National	National Conference on Empowering Mankind with Microbial Technologies (AMI – EMMT -2014)	Association of Microbiologists of India, Tamil Nadu Agricultural University, Coimbatore
Dec 2013	International	Integrating Basic and Translational Research in Modern Biology	Department of Microbiology and Biochemistry, The M.S. University of Baroda, Vadodara
Aug 2013	National	Expanding horizons of Microbiology	Department of Microbiology and Biochemistry, The M.S. University of Baroda, Vadodara



Jul 2013	International	The 5 <sup>th</sup> Congress of European Microbiologists	Federation of European Microbiological Societies, Leipzig, Germany
Nov 2012	International	Virtual Workshop on Scientific writing and publishing	American Society for Microbiology (ASM), KIIT University, Bhubaneswar
Nov 2012	International	Microbial world: Recent innovations and future trends	Association of Microbiologists of India, KIIT University, Bhubaneswar
Feb 2012	National	Recent Trends in Microbial Technology	UGC-DRS sponsored; Department of Microbiology and Biochemistry, The M.S. University of Baroda, Vadodara
Nov 2011	International	International Conference on Microbial Technology for sustainable development	Association of Microbiologists of India, Panjab University, Chandigarh
Dec 2010	National	Regulation of Biochemical and Cellular Processes in Diverse Systems	Society of Biological Chemists, IISc, Bangalore
Dec 2009	National	Third Golden era of Microbiology	Association of Microbiologists of India, NCL, Pune
Nov 2008	National	Silencing the Message: mi and si RNAs	Department of Microbiology and Biochemistry, The M.S. University of Baroda, Vadodara

## Publications

### RESEARCH PAPER/S

- Mishra, S. S., **Markande, A. R.**, Keluskar, R. P., Karunasagar, I. and Nayak, B. B. Simultaneous nitrification and denitrification by novel heterotrophs in remediation of fish processing effluent. *Journal of Basic Microbiology* (2015)  
(DOI: 10.1002/jobm.201400783)
- Markande, A.R.**, Mikaelyan, A., Nayak, B.B., Patel, K.D., Vachharajani, N.B., Vennila, A., Rajendran, K.V. and Purushothaman, C.S. (2014) Analysis of Midgut Bacterial Community Structure of *Neanthes chilkaensis* from Polluted Mudflats of Gorai, Mumbai, India. *Advances in Microbiology*, 4, 906-918. (dx.doi.org/10.4236/aim.2014.413101)





- **Markande, A. R.**, Acharya, S. R., & Nerurkar, A. S. (2013). Physicochemical characterization of a thermostable glycoprotein bioemulsifier from *Solibacillus silvestris* AM1. *Process Biochemistry*, 48(11), 1800–1808. (doi:10.1016/j.procbio.2013.08.017)

#### **BOOK CHAPTER**

- **Markande, A.R.** and Nerurkar, A.S. (2013). Biochemical diversity of microbial bioemulsifiers and their roles in the natural environment”  
Invited article in Book entitled “*Current Issues in Microbiology*” by IGNOU (Accepted)

**Date:** 8<sup>th</sup> December 2015

**Place:** Tarsadi (Bardoli)

