

Shri Shivaji College of Arts, Commerce and Science, Akola

Faculty Profile

1. Name : Mr.Milind Rajesh Belkhedkar
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5. Designation : Assistant Professor
6. Department : Department of Physics
7. Date of birth : 05 July 1980
8. Area of specialization : Solid State Physics & Digital Electronics



9. Academic qualification :

Examination passed	Board/ University	Subject/ Specialization	Year of passing	Division/ Grade/ Merit
Bachelor's Degree	Amravati University	Physics, Chemistry, Mathematics	2001	First
Master's Degree(M.Sc.)	Amravati University	Physics	2003	First
S E T	Pune University	Physical Sciences	12 May 2005	-
Ph.D.	S.G.B.Amravati University, Amravati	Studies on Preparation and Characterization of Doped and Undoped Chemically Deposited Nanostructured Iron Oxide and Manganese Oxide Thin Films	Registered since Jan 2011	Thesis Submitted Jan 2015
Other Degree/Diploma	AICTE , Mumbai	M.S.C.I.T.	2002	First

10. Membership of Academic Organizations:

- a) The Indian Science Congress Association, Kolkata.
- b) Indian Physical Society,
- c) Dr. Ambedkar Teachers Association
- d) Amravati University Physics Teachers Association

11. Research Experience: **10 yrs.**

Guiding M. Sc. Dissertations: **20 Students.**

12. Seminars/ Conferences/ Symposia/ Conferences attended and organised

Sr. No.	Name of the Conf./Seminar/ Workshop etc	Place and Name of the Sponsoring Agency	Place and Date	Paper Presented
1	National Seminar on Current trends in Chemical Sciences Research	UGC & Dept. of Chemistry, Shri. Shivaji College Akola	28 March 2008	Participation
2	National One Day Workshop on "Lighting for Rural and Urban low income groups using LED's"	S.G.B. Amravati University, Amravati.	3 October 2009	Participation
3	One Day Workshop on "Impedance Analyzer"	S.G.B. Amravati University, Amravati	09 February 2010	Participation
4	Workshop on "Physics with Homemade Equipment and Innovative Experiment"	Inter University Accelerator Centre, New Delhi	22- 27 February 2010	Participation
5	National Seminar on "Current Trends In Physical Sciences & Electronics Research."	UGC & Dept. of Physics & Electronics, Shri. Shivaji College Akola	28 March 2010	Member of Organising Committee
6	A Seminar on "Current Challenges in Physics Education" and Annual Convention of AUPTA	Shri Shivaji Science College Science, Amravati	25 April 2010	Attended
7	National Level Conference on "Developing	UGC & Dept. of Physics & Mathematics, RLT	24 – 25 September, 2010	Participation

	Frontiers of Physics, Astronomy & Space Science”	College ,Akola		
8	Interdisciplinary International Conference on “Dr. Ambedkar’s Buddhism and its Emancipatory Potential	Shri Shivaji College of Arts, Commerce & Science,	Akola (27 Jan-28 Jan 2011)	Attended
9	“Physics Olympiad Exposure Camp”	HBCSE, TIFR, Mumbai	4-6 Sept. 2011	Participated
10	Current trends in material science	Dr.R.G. Rathod Arts & Science College	3-Dec012, Murtizapur,Dist. Akola	Attended
11	National Conference on Mathematical Sciences-2013	Dr.R.G. Rathod Arts & Science College	18-19 January 2013	Attended and presented paper
12	6 th India –Singapore Joint Physics Symposium (ISJPS2013) on Physics of Advanced Materials	Department of Physics and Meteorology , I.I.T, Kharagpur	25-27 February 2013	Participated
13	(two weeks) “Information and Communication Technology (ICT)”	Dept of Commerce ShriShivaji College of Arts, Commerce & Science, Akola,	Akola 5 th to 20 th April 2013	Participated
14	Workshop on Communicational English	Department of English ShriShivaji College of Arts, Commerce & Science, Akola,	Akola 5 th April to 13 th April, 2013	Participated
15	National conference on Material Science-Trends and future	Bharatiya Mahavidyalaya, Amravati	10-11 Jan2014	Participated
16	Recent trends in Mathematics, Physics and their application	Khandelwal College, Akola	19 th March2014	Participated
17	National Conference on “Current Developments in Nanoscience: Challenges and	Department of Physics, Kamla Nehru Mahavidyalaya, Nagpur	Nagpur 14 September 2014	Participated

	Opportunities”			
18	National Conference on “Nanoscience for Sustainable Development ”	Ambedkar College, Nagpur	23 rd Feb 2015	Participated

13. Research Projects Completed / Ongoing

Sr.No.	Title of the project	Name of the funding agency	Duration	Remarks
1	Structural, Dielectric and Electrical properties of nanosized Magnesium Aluminate.	UGC Minor Research Project.	2008 -2010	Completed (0.65 Lac)
2	Synthesis and Characterization of Nanostructured Transition Metal Oxide thin films by chemical method	UGC, Minor Research Project.	2014- 2015	Proposal submitted (5.00 Lac)

14. Teaching Experience

Courses Taught	Name of the University/ College/ Institution	Duration
UG	AmravatiUniversity, Shri. Shivaji College Of Art's, Commerce & Science, Akola	10 Years
PG	AmravatiUniversity, Shri. Shivaji College Of Art's, Commerce & Science, Akola	10Years
Other (Career Oriented Programme) Orientation & Refresher Courses	i)Orientation course- ASC, Nagpur University, Nagpur ii)Refresher Course- ASC, Mumbai University, Mumbai	18 Feb to 17 March 2009 17Jan to 07 Feb 2011

15. Innovations/ Contributions in Teaching

a. Design of Curriculum:

For classroom lectures synopsis is already distributed well in advance to the students and make them aware for further preparation to keep them ready for questions in the classroom.

- b. Teaching Methods:**
 i) Usual Classroom teaching method adopted usually along with some model, Chart, OHP and LCD projector used for special lectures as when required.
 ii) Seminar in different units as per syllabus.
- c. Laboratory Experiments: -**
 i) Experimental Demonstration, followed by explanation on actual practical.
 ii) Encouraging students to fabricate and design various experiments based on syllabus.
- d. Preparation of resource materials:-**
 i) Notes on theory as well as practical are distributed and some reference books for up-to-date knowledge is recommended.
 ii) Practical manuals were prepared for each experiment and made available for students.
- e. Remedial teaching:**
 Guidance to the students weak in studies during free and spare time.
16. Role in college activities:
 i) Career Guidance and Placement cell, ii) Admission Committee, iii) Quiz Competition Committee, iv) Students Seminar Competition, v) Science Exhibition.
17. Role in university activities:
 Paper setting, Moderation, Internal and External for Practical Examination, Invigilation. etc.
18. Any Important Publications, Any other Achievements, Any information (Optional):
 (starting with the latest)

List of publications as on 15 Dec. 2015

(National and International Journal publications): 17

1. A.U.Ubale, **M. R. Belkhedkar**, "Size Dependent Physical Properties of Nanostructured α -Fe₂O₃ Thin Films Grown by Successive Ionic Layer Adsorption and Reaction Method for Antibacterial Application" Journal of Materials Science & Technology 31(1) (2015) 1- 9(**Impact Factor: 1.610**)
2. **M. R. Belkhedkar**, A. U. Ubale, Y. S. Sakhare, Naushad Zubair, M. Musaddique, "Characterization and antibacterial activity of nanocrystalline Mn doped Fe₂O₃ thin films grown by successive ionic layer adsorption and reaction method" Journal of Arab Universities in Basic and Applied Sciences (2015) (**Impact Factor: SNIP- 0.546**)
3. **M. R. Belkhedkar**, R. V. Salodkar, G. P. Save, A.V. Mitkari, Y. S. Sakhare, A. U. Ubale, "Structural and Electrical Properties of Magnesium Oxide Nanoparticles Synthesized By Chemical Co-Precipitation Method". International Journal of Researches in Biosciences, Agriculture & Technology, 2 (2015) 92 - 96.
4. **M. R. Belkhedkar**, A.U.Ubale, "Physical properties of nanostructured Mn₃O₄ thin films synthesized by SILAR method at room temperature for antibacterial application". Molecular Structure, 1068 (2014) 94 -100.(**Impact Factor: 1.599**)
5. **M. R. Belkhedkar**, A.U.Ubale, "Physical properties of Fe doped Mn₃O₄ thin films synthesized by SILAR method and their antibacterial performance against E. coli." Journal of Saudi Chemical Society (2014).(**Impact Factor: 2.523**)
6. **M. R. Belkhedkar**, A.U.Ubale, "Preparation and Characterization of nanocrystalline α -Fe₂O₃ thin films grown by successive ionic layer adsorption and reaction method", International Journal of Materials and Chemistry 4(5) (2014). [**ISSN: 2166-5354**].

7. **M. R. Belkhedkar**, A.U.Ubale, "Synthesis of porous α -Fe₂O₃ thin film by successive ionic layer adsorption and reaction method onto Al-substrate". Vidarbha Journal of Science 9 (1), (2014) 24-30.[ISSN : 0973-8932]
8. **M. R. Belkhedkar**, A.U.Ubale, "Structural and morphological properties of Mn doped Fe₂O₃ nanocrystalline thin film grown by Silar method", International Journal of Basic and Applied Research 4 (2014) 169-171.
9. Ashok U. Ubale, Y.S. Sakhare, S.G. Ibrahim, **M.R. Belkhedkar** "Structural, optical and electrical properties of nanocrystalline MgSe thin films deposited by chemical route using triethanolamine as a complexing agent" Solid State Sciences 23 (2013) 96 – 101.
(Impact Factor: 1.856).
10. Ashok U. Ubale, J.S.Kantale, D.M.Choudhari, V.N.Mitkari, M.S.Nikam, **M.R.Belkhedkar**, "Characterization of nanostructured As₂S₃ thin films synthesized at room temperature by chemical bath deposition method using various complexing agents" Thin Solid Films 542(2013)160 –166 . **(Impact Factor: 1.890)**
11. A. U. Ubale, Y. S. Sakhare, **M.R.Belkhedkar** "Synthesis and characterization of spray deposited nanostructured FeSe thin films" Materials Letters 92 (2013) 111 – 114.
(Impact Factor: 2.307)
12. A. U. Ubale, Y. S. Sakhare, M. V. Bhute, **M. R. Belkhedkar**, A. Singh, "Size dependent structural, electrical and optical properties of nanostructured iron selenide thin films deposited by chemical bath deposition method" Solid State Sciences 16 (2013) 134 -142.
(Impact Factor: 1.856).
13. A. U. Ubale, **M. R. Belkhedkar**, Y. S. Sakhare, Arvind Singh, Chetan Gurada, D.C.Kothari "Characterization of nanostructured Mn₃O₄ thin films grown by SILAR method at room temperature". Materials Chemistry and Physics 136 (2012)1067- 1072.
(Impact Factor: 2.234)
14. A. U. Ubale, Y. S. Sakhare, **M. R. Belkhedkar**, Arvind Singh "Characterization of nanostructured iron selenide thin films grown by chemical route at room temperature" Materials Research Bulletin 48(2) (2012) 863 - 868.**(Impact Factor: 2.105)**
15. A. U. Ubale, K. S. Chipade, M.V. Bhute, P. P. Raut, G. P. Malpe, Y. S. Sakhare, **M.R.Belkhedkar**, " Structural, Optical and Electrical Properties of Nanostructured CdS: CuS composite Thin Films Grown by CBD Method" International Journal of Materials and Chemistry 2(4) (2012) 165-172.[e-ISSN: 2166-5354].
16. Yogesh S. Sakhare, Monali V. Bhute, **Milind R. Belkhedkar**, S. G. Ibrahim, Ashok U. Ubale, "Physical Properties of Nanostructured FeSe Thin Films Deposited by Chemical Bath Deposition Techniques: Effect of Fe(NO₃)₃·9H₂O Source". International Journal of Computer Applications (2012) pp. 11- 14.
(ISBN: 973-93-80870-68-6)
17. Ashok U. Ubale, Monali V. Bhute, Yogesh S. Sakhare, **Milind R. Belkhedkar**, S. G. Ibrahim, "Synthesis of Nanostructured As₂S₃ Thin Films by Chemical Route: Effect of Complexing Agent". International Journal of Computer Applications (2012) pp.15- 18.
(ISBN: 973-93-80870-68-6)

Conference Publications: 05

1. **M. R. Belkhedkar**, A.U.Ubale, Y. S. Sakhare, S. G. Ibrahim, “Structural and morphological properties of nanocrystalline iron oxide thin films deposited by silar method” Proceedings of NCCDN-2013, pp. 9-11.
2. **M. R. Belkhedkar**, Y. S. Sakhare, A. U. Ubale, “Electrical properties of nanostructured manganese oxide thin films deposited by silar method onto glass substrate” Proceedings of NCCDN-2013 pp. 67-69.
3. Y. S. Tamgadge, A. L. Sunatkari, S. A. Sunatkari, S. M. Palhade, **M. R. Belkhedkar**, N.B. Thakare, G. G. Muley, “Optical and Structural Properties of L-Alanine Capped ZnO Quantum Dots”, Proceedings of National Conference on Upcoming Trends in Chemical Science UTCS-2013. pp. 1-3.
4. **M. R. Belkhedkar**, H. N. Pawar, M. K. Bhagat, Y. S. Tamgadge, D. A. Zatale, A. U. Ubale, “Synthesis and Characterization of Nano Structured Barium Peroxide by Chemical Co-precipitation Method at Room Temperature”. Lasers and Advanced Materials: Proceedings of NCLAM-2012- pp.11-13.
5. **M. R. Belkhedkar**, M. K. Bhagat, H. N. Pawar, A.U.Ubale “Characterization of Nanostructured Barium Sulphide Prepared by Chemical Co- precipitation Method” Lasers and Advanced Materials: A proceedings of NCLAM-2012 – pp.114-116.
