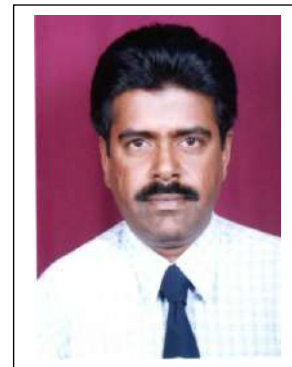


CURRICULUM VITAE



- 1. Name** : **Dr. SANJAY R. GADAKH**
- 2. Designation** : **Associate Professor (Physics)**
- 3. Office Address** : Principal,
MVP Samaj's Arts, Science & Commerce College,
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- 4. E-mail** : gadakhsr@gmail.com /sanjaygadakh@kthmcollege.ac.in
- 5. Telephone No.** : 91-02550- 275279 (O)
- 6. ORCID ID** : **0000-0003-1239-1515**

7. Educational Qualifications: MSc, PhD, ADCSSA

- 8. Teaching Experience:** Under graduate (UG): 34 years
Post graduate (PG) : 22 years

9. Research Experience

Total Research experience of 18 years

10. Research Projects completed

Sr. No.	Title of the Project	Principal Investigator / co-Investigator	Funding Agency	Amount	Duration	Status
1	" Synthesis of TiO ₂ Electrodes for Dye- Sensitized Solar Cells by Direct Solution Growth of Crystalline Films"	Principal Investigator	UGC, India	68,000/-	2005-07	Completed
2	Solar Light Activated Photocatalytic Reactor for Water Detoxification Using Doped TiO ₂ Thin Films Deposited by Spray Pyrolysis	co-Investigator	BCUD SPPU Pune	1,80,000	2015-2017	Completed

11. International Travel

Presented a research paper in 'Fourteenth International Conference on Photo-chemical Conversion and Storage of Solar Energy' held at Hokkaido University, Sapporo, **Japan** from 4th to 9th August 2002.

12. Research Publications

- A) Papers published in International Journals - 09. (Refer Appendix-I)
- B) Papers published in Proceedings of National Conference: 01
- C) Papers presented in National Conferences - 5.
- D) Paper presented in International Conference - 3.

13. Books / Book Chapter Published: 07 (Please refer to **Appendix-II**)

14. Membership:

- i) Member, Board of Studies in Physics of Savitribai Phule Pune University (2018-2022)
- ii) Life member of 'Materials Research Society of India', (Membership Number: LMB3741)

15. Resource Person:

- i) Delivered invited talk on 'Energy & Environment: Global Scenario' at The **National Conference** on Renewable Energy & Environment (NCREE-2018), organized by K.J. Somaiya College of Arts, Commerce & Science, Kopergaon, on 19th January 2018.
- ii) Delivered invited talk on 'Renewable and New Energy Sources for Smart Cities' at the **State Level Conference** on 'Renewable Energy & Sustainable Development', 10-11 Jan. **2019**, organized by Arts Science & Commerce College Ozar.
- iii) Delivered an invited talk on 'Metal Oxide Composites for Photocatalytic Applications' at the **National Level** Training Program on 'Machine Learning Approach using Computational DFT Methods and Advanced Material Synthesis and Applications', organized by Guru Gobind Singh Polytechnic College, Nashik on 10th January 2024.

16. Recognition: Recognized as PhD Guide by Savitribai Phule Pune University

17. Research Guidance: At present **05** Students are working for **Ph.D.**

02 students have completed **M.Phil.** degree

18. Reviewer for the following Journals

Sr No	Name of the Journal	Publisher
1	Materials Chemistry & Physics	Elsevier
2	Physica Scripta	IOP Publishing
3	Nano Hybrids and Composites	Scientific.Net
4	Journal of Physics: Energy	IOP Publishing
5	Journal of Nano Research	Scientific.Net
6	Engineering Chemistry	Scientific.Net

Appendix-I

List of Publications

A) Papers published in international journals

1. 'Effect of complexing agent on the properties of spray deposited Bi_2S_3 thin films', S.R. Gadakh, V.V. Killedar, C.D. Lokhande, C.H. Bhosale, *Materials Chemistry and Physics*, 56 (1998) 79-83.
2. 'Effect of concentration of complexing agent (tartaric acid) on spray deposited Bi_2S_3 thin films', S.R. Gadakh, C.H. Bhosale, *Materials Research Bulletin*, 35 (2000) 1097-1106.
3. 'Effect of concentration of complexing agent on the spray deposited Bi_2S_3 thin films' S.R. Gadakh, C.H. Bhosale, *Materials Chem. and Physics*, 64 (2000) 5-9.
4. 'Effect of concentration of complexing agent (EDTA) on the structural, electrical and optical properties of spray deposited As_2S_3 thin films', S.R. Gadakh, C.H. Bhosale, *Materials Research Bulletin*, 36 (2001) 1011-1016.
5. 'Effect of concentration of complexing agent (tartaric acid) on the properties of spray deposited Sb_2S_3 thin films', S.R. Gadakh, C.H. Bhosale, *Materials Chemistry and Physics* 78 (2002) 367 – 371.
6. 'Visible light assisted photoelectrocatalytic degradation of sugarcane factory wastewater by sprayed CZTS thin films' Y.M. Hunge, M.A. Mahadik, V.L. Patil, A.R. Pawar, S.R. Gadakh, A.V. Moholkar, P.S. Patil, C.H. Bhosale, *Journal of Physics and Chemistry of Solids* 111 (2017) 176–181.
7. 'Unidentified Character of Fe-Modified Graphene and Its Effect on Gas Sensing Activity', S. A. Singh, B. S. Nadekar, P. S. More, S. R. Gadakh *IJCPS Vol. 7, Special Issue, March 2018*,597-601.
8. 'Improved field electron emission behavior of ultrathin lanthanum hexaboride-coated copper oxide nanowires', Amol B. Deore, Aditya T. Jagdale, Chetan D. Mistari, Krishna Jagtap, Sandesh R. Jadkar, Mahendra A. More, Sanjay R. Gadakh, Tomoyuki Ueki, and Pankaj M. Koinkar, *International Journal of Modern Physics B Vol. 38, Nos. 12&13 (2024) 2440016*
9. 'Visible light-induced photocatalytic degradation of methylene blue dye using pure phase bismuth ferrite nanoparticles', Nilesh N. Mharsale, Pravin S. More, Yogesh B. Kholam, Shoyebmohamad F. Shaikh, Abdullah M. Al-Enizi, Sanjay R. Gadakh, *Journal of Physics and Chemistry of Solids* 192 (2024) 112049.

B) Papers Published in Proceedings of conferences:

1. 'Photoelectrochemical properties of spray deposited Sb_2S_3 thin films S.R. Gadakh, C.H. Bhosale', 'Towards Clean Energy' Proceedings of NSEC-1996, National Solar Energy Convention, Jadavpur University, Calcutta, 27th to 29th Dec. **1996** p. 316-319.

C) Papers presented in National conferences

1. 'Properties of sprayed Bi_2S_3 thin films prepared at different substrate temperatures', S.R. Gadakh, V.V. Killedar, C.D. Lokhande, C.H. Bhosale, 'National Conference on Development of Electronic Materials and Applications' (NCDEMA) 6th to 8th March **1995**.
2. 'Photoelectrochemical properties of spray deposited Sb_2S_3 thin films S.R. Gadakh, C.H. Bhosale', 'Towards Clean Energy' Proceedings of NSEC-1996, National Solar Energy Convention, Jadavpur University, Calcutta, 27th to 29th Dec. **1996** p. 316-319.
3. 'Effect of concentration of complexing agent (EDTA) on the electrical and optical properties of spray deposited Sb_2S_3 thin films', S.R. Gadakh, C. H. Bhosale, National Seminar on Recent Trends in Material Science (NSRTMS) 25-27 November **1999**, Dept. of Physics, Shri Venkateswara University, Tirupati.
4. 'Studies On Structural Properties of Bismuth Ferrite Nanoparticles By Sol-Gel Method Using Chelating Agent', S.R. Gadakh, Nilesh Mharsale "National Conference on Advance Trends in Material Science & Applications", organized by KTHM College Nashik on 30-31 August **2021**.
5. 'Structural Properties of Bismuth Ferrite nanoparticles synthesized by Sol-Gel Method'
S.R. Gadakh, "National Conference on Advanced Materials, Technology, Applications and Education -2021" (AMTAE-2021) Organized by Hon. Balasaheb Jadhav Arts Commerce & Science College Ale, Tal. Junnar, Dist. Pune on 16th October **2021**.

D) Papers presented in International conferences

1. 'Concentration effect of complexing agent (tartaric acid) on the optical and electrical properties of Sb_2S_3 thin films prepared by spray pyrolysis', 'Fourteenth International

Conference on Photochemical Conversion and Storage of Solar Energy ' held at Hokkaido University, Sapporo, Japan from 4th to 9th August **2002**.

2. 'Structural, optical and photo electro chemical properties of spray deposited CdTe thin films', D.M. Sapkal, P.S. Shinde, S.R. Gadakh, C.H. Bhosale, paper presented at the International conference on Advanced Materials and Applications, (ICAMA-2007), held at Shivaji University Kolhapur from 15-17th Nov. **2007**.
3. 'Crystallographic Analysis of Bismuth Ferrite Nanoparticles by Using Full Prof and Qualx Software' Nilesh Mharsale, S.R. Gadakh, International Conference on 'Recent Trends in Green & Sustainable Development in Chemical Sciences', Organized by KTHM College Nashik on 25-27 October **2021**.

Appendix-II

Sr. No.	Title of the Book	Publisher	ISBN No.	Year of publication
1	Electronic Devices, Circuits & computer Peripherals	Vision Publication, Pune	978-81-89993-33-7	2008
2	Fundamentals of digital Electronics	Vision Publication, Pune	978-81-89993-34-4	2008
3.	Microprocessor Architecture & Programming	Vision Publication, Pune	978-93-80111-23-0	2009
4.	8051 Microcontroller & Embedded Systems	Vision Publication, Pune	978-93-80111-96-4	2009
5	Digital Hardware systems	Vision Publication, Pune	978-93-5016-282-8	2014
6	Experimental Techniques in Physics	Yashwantrao Chavan Maharashtra Open University	978-93-92982-65-1	2022
7	Chapter in Edited book, 'Thin films and Its applications'	Mahi Publications	978-81-19492-02-2	2024

Dr. S. R. Gadakh

1. Research Papers Published

Sr. No.	Title of the Article/ Paper	Name of the journal	Vol. No. & PP/ Month and Year	Whether you are the main Author	ISSN No.	UGC Journal No.	Impact Factor
1.	Effect of complexing agent on the properties of spray-deposited Bi ₂ S ₃ thin films'	Materials Chemistry and Physics	56 (1998) 79-83	Yes	0254-0584	Group II Web of Sciences	4.3
2.	Effect of concentration of complexing agent on the spray deposited Bi ₂ S ₃ thin films'	Materials Chemistry and Physics	64 (2000) 5-9	Yes	0254-0584	Group II Web of Sciences	4.3
3.	Effect of concentration of complexing agent (tartaric acid) on spray-deposited Bi ₂ S ₃ films'	Materials Research Bulletin	35 (2000) 1097-1106	Yes	0025-5408	Group II Web of Sciences	5.3
4.	Effect of concentration of complexing agent (EDTA) on the structural, electrical and optical properties of spray deposited arsenic tri-sulphide thin films'	Materials Research Bulletin	36 (2001) 1011-1016	Yes	0025-5408	Group II Web of Sciences	5.3
5.	'Effect of concentration of complexing agent (tartaric acid) on the properties of spray deposited Sb ₂ S ₃ thin films'	Materials Chemistry and Physics	78 (2002) 367-371	Yes	0254-0584	Group II Web of Sciences	4.3
6.	Visible light assisted photo electrocatalytic degradation of sugarcane factory wastewater by sprayed CZTS thin films'	Journal of Physics and Chemistry of Solids	111 (2017) 176-181	No	0022-3697	Group II Web of Sciences	4.3

7.	Unidentified Character of Fe-Modified Graphene and Its Effect on Gas Sensing Activity	International Journal of Chemical and Physical Sciences	Vol.7 (2018) 596-601	No	2319-6602	48283	-
8.	Improved field electron emission behavior of ultrathin lanthanum hexaboride-coated copper oxide nanowires	International Journal of Modern Physics B,	Vol. 38, No. 12n13, 2440016 (2024)	No	0217-9792	Group II Web of Sciences	2.6
9.	Visible light-induced photocatalytic degradation of methylene blue dye using pure phase bismuth ferrite nanoparticles	Journal of Physics and Chemistry of Solids,	192 (2024) 112049	Yes	0022-3697	Group II Web of Sciences	4.3
10.	Electrochromic performance of Pt-embedded porous alumina thick films via interface engineering with Low-temperature volatile organic compound-based gas sensors'	Journal of Materials Science: Materials in Electronics	35, 1537 (2024)	No	0957-4522	Group II Web of Sciences	2.8
11.	Biomolecule-assisted hydrothermal synthesis of copper aluminium sulfide; Application for dye degradation	ES Energy & Environment	2024	yes	2578-0646	Group II Web of Sciences	

2. Book/ Chapters in Edited Books

Sr. No.	Title of the Book	Author Co-Author(s)	Name of the Publisher	Month, Year	ISBN No.
1	Title of Book 'Thin Films and its Applications'	Dr S R Gadakh	Mahi Publications, Ahmedabad, India.	July 2023	978-81-19492-02-2

	Title of the chapter 'Defects in Thin Films'				
2	Towards Clean Energy' Proceedings of NSEC- 1996 National Solar Energy Convention, Jadavpur University, Calcutta	Dr S R Gadakh Dr C H Bhosale	Tata McGraw- Hill	December 1996	978-00- 74633-68-7, 0074633 686
3	Experimental Techniques in Physics	Dr S R Gadakh	Yashwantrao Chavan Maharashtra Open University	978-93- 92982-65- 1	2022

3. Research Guidance

a) PhD Students

Name of the Scholar	Title of the Thesis	Submitted/ Awarded (Pls. Specify)	Name of the University	Month and Year
Mharsale Nilesh Nana	Studies on Photocatalytic Activity of Doped BiFeO ₃ Nanoparticles Synthesized by Sol-Gel Method for Degradation of Organic Pollutants	Experimental work completed; thesis writing is in progress	Savitribai Phule Pune University Pune	
Pandit-More Swarada Ganesh	Synthesis of Bimetallic Sulphide Thin Films and its Applications in Photonics	Experimental work completed; thesis writing is in progress	Savitribai Phule Pune University Pune	
More Tushar Sudhakar	Studies on Metal Oxide-Reduced Graphene Oxide Ternary Nanocomposites for Photocatalytic Applications	Work in progress	Savitribai Phule Pune University Pune	
Anita Ashok Jadhav	Synthesis of Metal Sulphide - Reduced Graphene Oxide Nanocomposites for Photocatalytic Application	Work in progress	Savitribai Phule Pune University Pune	
Sneha Vishwasgir Buwa	Studies on Synthesis and Photocatalytic Activity of Ag Loaded rGO-Bi ₂ MO ₆ composites	Work in progress	Savitribai Phule Pune University Pune	

b) M.Phil Students

Name of the Scholar	Title of the Thesis	Awarded (Yes/ No)	Name of the University	Month and Year
Wazal Makarand Sachidanand	M.Phil Virtual Local Area Network	Yes	Alagappa University, Karaikudi	February 2010
Kotkar Sunil Keshavrao	M.Phil Security Aspects of Computer System	Yes	Alagappa University, Karaikudi	February 2010

4. Research Projects Completed

Title of the Project	Funding Agency	Grant sanctioned	Duration		Project Status	Project Type:
			from	to		
Synthesis of TiO ₂ Electrodes For Dye- Sensitized Solar Cells By Direct Solution Growth of Crystalline Films	UGC New Delhi	68,000	2005	2007	completed	Research
Solar Light Activated Photocatalytic Reactor for Water Detoxification Using Doped TiO ₂ Thin Films Deposited by Spray Pyrolysis	BCUD SPPU Pune	1,80,000	2015	2017	completed	Research Co- investigator

5. Patents

Title of the Patent	Details of Patent
A visible light led bulb based photoreactor for studies on photocatalytic activity of bismuth ferrite for degradation of methylene blue	Application Number: 202421038617 Date of Filing: 16/5/2024 Date of Publishing: 14/06/2024 Field of Invention: Chemical Application Type: Ordinary Application

6. Paper presented in conferences/ Resource person

Name of the Programme	Name of Organizing Agency	International /National/ State/University level	Title of the Paper / Talk	Duration (Dates of Event)
'National Conference on Development of Electronic Materials and Applications' (NCDEMA)	Shivaji University, Kolhapur	National	Presented Research Paper on 'Properties of sprayed Bi ₂ S ₃ thin films prepared at different substrate temperatures'	6 th to 8 th March 1995.
National Seminar on Recent Trends in Material Science (NSRTMS)	Dept. of Physics, Shri Venkateswara University, Tirupati, Andhra Pradesh, India	National	Presented Research Paper on 'Effect of concentration of complexing agent (EDTA) on the electrical and optical properties of spray deposited Sb ₂ S ₃ thin films	25-27 November 1999
'Fourteenth International Conference on Photochemical Conversion and Storage of Solar Energy	Hokkaido University, Sapporo, Japan	International	Presented Research Paper on 'Concentration effect of complexing agent (tartaric acid) on the optical and electrical properties of Sb ₂ S ₃ thin films prepared by spray pyrolysis'	from 4 th to 9 th August 2002
International conference on Advanced Materials and Applications, (ICAMA- 2007),	Shivaji University Kolhapur	International	Presented Research Paper on 'Structural, optical and photo electro chemical properties of spray deposited CdTe thin films	15-17 th Nov. 2007.
National Conference on Renewable Energy &	K.J. Somaiya College of Arts, Commerce &	National	Invited talk on 'Energy &	on 19 th January 2018.

Environment (NCREE-2018),	Science, Kopargaon,		Environment: Global Scenario'	
State Level Conference on 'Renewable Energy & Sustainable Development'	Arts Science & Commerce College Ozar (Mig)	State Level	Invited talk on 'Renewable and New Energy Sources for Smart Cities'	10-11 Jan. 2019
National Conference on Advance Trends in Material Science & Applications'	KTHM College Nashik	National	Presented Research Paper on 'Studies On Structural Properties of Bismuth Ferrite Nanoparticles By Sol-Gel Method Using Chelating Agent'	30-31 August 2021
National Conference on Advanced Materials, Technology, Applications and Education -2021" (AMTAE-2021)	Hon. Balasaheb Jadhav Arts Commerce & Science College Ale, Tal. Junnar, Dist. Pune on	National	Presented Research Paper on 'Structural Properties of Bismuth Ferrite nanoparticles synthesized by Sol-Gel Method'	16th October 2021
International Conference on 'Recent Trends In Green & Sustainable Development In Chemical Sciences'	KTHM College Nashik	International	Presented Research Paper on Crystallographic Analysis of Bismuth Ferrite Nanoparticles By Using Full Prof and Qualx Software'	on 25-27 October 2021.
Savitribai Phule Pune University PhD Coursework	Savitribai Phule Pune University & KTHM College Nashik	University level	Delivered talk as a Resource person o (i)Probe Microscopy (ii) Measurement Principles	6/2/2023 10/2/2023

National Level Training Program on 'Machine Learning Approach using Computational DFT Methods and Advanced Material Synthesis and Applications'	Guru Gobind Singh Polytechnic College, Nashik	National	Invited talk on 'Metal Oxide Composites for Photocatalytic Applications'	on 10 th January 2024.
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