Dr. Ananta G. Dhodamani

M.Sc., Ph.D., SET (Chemistry)

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At./Post-Umarani, Tal-Jath
Dist- Sangli 416 404 (MS), India

OBJECTIVES

To develop a challenging and progressive skills in the academic as well as research with sufficient opportunities to apply my skills for the attainment of the institutions goal. I would like maintain myself as one of the responsible person by contributing my efforts to the development of the institution.

PROFESSIONAL APPOINTMENTS

22nd Feb, 2020	Assistant Professor in Physical Chemistry Rajarshi Chhatrapati Shahu College, Kolhapur, 416 405, MS, India
19th August, 2022	Assistant Professor in Physical Chemistry, Sadguru Gadge Maharaj College, Karad, 415 124, MS, India
20th August, 2022	Coordinator (B.Sc. Medicinal Chemistry) Sadguru Gadge Maharaj College, Karad, 415 124, MS, India

ACADEMIC QUALIFICATIONS

Dec, 2020	**MS-SET in Chemical Sciences** Savitribai Phule Pune University, Pune
Jun, 2019	**Ph. D. in Chemistry** Department of Chemistry, Shivaji University, Kolhapur, MS, India
June, 2013	**M.Sc. in Physical Chemistry** Department of Chemistry, Shivaji University, Kolhapur, MS, India
June, 2010	**B. Sc. in Chemistry** Department of Chemistry, Raje Ramrao Mahavidyalaya, Jath, Sangli, MS, India

ACHIEVEMENTS/HONOURS/REWARDS

2022	Enlisted in the top 2% world scientist published by Stanford University using Web of Science data
2021-Till date	Enlisted in the top 50 Scientist from Shivaji University, Kolhapur by AD Scientific Index.
2018	"Avishkar 2018-2019" Research Project Competition at University level (Central) held in Shivaji University, Kolhapur, (MS) India
2016-2019	Rajiv Gandhi National Senior Research Fellowship Award
2015	Best Oral Presentation award in Department of Chemistry, SGBAU, Amravati, (MS) India

2014-2016 Rajiv Gandhi National Junior Research Fellowship Award

RESEARCH EXPERIENCE

2013-2019 Research Scholar (RGNRF)
Department of Chemistry,
Shivaji University, Kolhapur, 416 003, MS, India

Thesis Title: Heterojunction Nanocomposites of Doped TiO_2 with Functionalized Carbon Nanostructures for Solar Energy Harvesting

Mentor Prof. (Dr.) Sagar D. Delekar (Professor, Department of Chemistry, Shivaji University, Kolhapur)

RESEARCH EXPERTISE

- ✓ Designing of the hybrid Nanomaterials for potential applications viz. Photovoltaics, Supercapacitors, Electro-chemical Sensors, Gas Sensor, Photocatalysis and Antibacterial Studies.
- ✓ Electrostatic connectivity of the materials for charge transportation and ROS generation.
- ✓ Novel designing of the carbon-based nanostructures for making metal oxides-based hybrids.
- ✓ Handling of the sophisticated analytical tools viz. UV-Visible, Fluorescence, FT-IR, ATR, Potentiostat, Time resolved photoluminescence, Thermogravimetric analysis and Keithly Electrometer.

RESEARCH CREDENTIALS

Total Publications	: 28
Total Citations	: 1122
h-index	: 19
i-10 index	: 22
Google scholar link	: https://scholar.google.com/citations?user=OOyyX6EAAAAJ

PATENT GRANTED/FILLED

1. **A. G. Dhodamani**, K. V. More, S. D. Delekar, Binder Free Thin Film Deposition of Composites and its Electrostatic Connectivity with Sensitizers for Photovoltaic Studies, *Indian Patent File No.: 201821049028.*
2. **A. G. Dhodamani**, P. S. Pawar, V. S. Ghodake, K. V. More, S. J. Kadam, S. D. Delekar A System for the Fabrication of Hybrid Photovoltaic Devices Using Mo-doped TiO_2/rGO as Nanocomposites and Natural Pigments as Sensitizer, German Utility Patent Grant No.: 20 2024 107 612
3. **A. G. Dhodamani**, K. V. More, D. A. Kumbhar, P. A. Koyale, S. J. Kadam, T. D. Dongale, S. D. Delekar, A System for the Synthesis of Ti1-xFex$O_{2-\delta}$ photoelectrodes Sensitized with CdS QDs-N719 Dye, German Utility Patent Grant No.: G24720DE.

4. M.P. Desai, S. L. Patil, M.A.Vedpathak, **A. G. Dhodamani**, V.S. Ghodake, T. D. Dongale, Electrochemical Biosensor Medical Device, for Magnetic Nanoparticle-Based Cancer Biomarkers.UK Design Patent Grant No.: 6489278

RESEARCH PUBLICATIONS (INTERNATIONAL)

1. Patil, M. M., Koyale, P. A., Sadavar, S. P., Shelake, A., Dongale, T., **Dhodamani, A. G.,** Sutar, S. S. Delekar, S. D., Facile Design of MOF-Derived Porous CeO_2/MWCNTs Nanocomposites for Hydrogen Evolution Reaction and Machine Learning-Assisted Stability Forecasting, Nanoscale, 2025.
2. Pawar, P. S., Koyale, P. A., Patil, M. M., Mullani, N. B., Kapdi,Y. G., Soni, S. S., Dhodamani, A. G., Delekar, S. D. Optimized Nb-Doped TiO_2/rGO Nanocomposites for Assessment of Photovoltaic Performance With Metal-Free Dye and Polymer Gel Electrolyte, ChemistrySelect, 2024, 9(31), e202402098.
3. Thate, A., Pakhare, K., Patil, S., Bhuse, V. M., Dhodamani, A., Kamble, A., TiO_2-ZnO rodlike nanocomposite as photoanode in DSSC yielding 7.38% PEC with N3 dye, Chemical Papers, 2024.
4. Koyale, P. A., Dongale, T. D., Sutar, S. S. Mullani, B. B., Dhodamani, A. G. Takale P. S., Gunjkar, J. L., Parale V. G., Park, H-H., Delekar, S D. Boosting the Photoelectrochemical Performance of ZnO Nanorods with Co-doped ZnZIFs Metal-Organic Frameworks for Water Splitting Studies. International Journal of Hydrogen Energy, 2024, 61, 1294-1304.
5. Yadav, A. A., Hunge, Y. M., **Dhodamani, A. G**., Kang, S-W., Hydrothermally Synthesized Ag@MoS_2 Composite for Enhanced Photocatalytic Hydrogen Production, Catalysts, 2023, 13 (4), 716-727.
6. More, K. V., **Dhodamani A. G.**, Dongale, T. D., Panda D. K., Delekar S. D., Compositional-Dependent Enhanced Physicochemical and Photovoltaic Studies of Nanocrystaline $Ti_{1-x}Fe_xO_{2-\delta}$ Photoelectrodes Co-sensitized with Cds QDs-N719 dye, journal of solid state electrochemistry, 2022, 26 (4), 1075-1084
7. Kumbhar, D.; Delekar S. D.; Kumbhar, S.; **Dhodamani, A. G.;** Harale, N.; Nalawade,R.; Nalawade, A. Effect Of Mn^{2+} Substitution into the Host Lattice of Zno via Sol-Gel Route for Boosting Dye Sensitized Solar Cells Performance, Chemical papers, **2021**, 1-17.
8. Deshmukh,S. P.;Koli,V. B.; **Dhodamani, A. G.;**Patil, S. M.;Ghodake, V. S.;Delekar, S. D.Ultrasonochemically Modified Ag@TiO_2 Nanocomposites as Potent Antibacterial Agent in the Paint Formulation for Surface Disinfection, ChemistrySelect,**2021**, 6 (1), 113-122.
9. Kumbhar, D.; Kumbhar, S.; **Dhodamani, A.;** Delekar, S.; Harale, N.; Nalawade,R.; Nalawade, A. Enhanced photoelectrochemical cell performance of Co doped ZnO

nanoparticles sensitized by affordable mixed dyes as sensitizer, Inorganic and Nano-Metal Chemistry, **2020,**1-14.

10. Mullani, S.B.; **Dhodamani, A. G.;** Shellikeri, A.; Mullani, N. B.; Tawade, A. K.; Tayade, S. N.; Biscay, J.; Dennany, L.; Delekar, S. D.; Structural refinement and electrochemical properties of one dimensional $(ZnO\ NRs)_{1-x}(CNs)_x$ functional hybrids for serotonin sensing studies, Scientific reports, **2020,** 10 (1), 1-18.
11. Koli, V. B.; Ke, S.; **Dhodamani, A. G.;**Deshmukh, S. P.; Kim, J.;Boron-Doped TiO2-CNT Nanocomposites with Improved Photocatalytic Efficiency toward Photodegradation of Toluene Gas and Photo-Inactivation of Escherichia coli, Catalysts, **2020,** 10 (6), 632.
12. **Dhodamani, A.G.;** More, K.V.; Patil, S.M.; Shelake, A. R.; Shinde, S.K.; Kim, D-Y.; and Delekar, S.D. Synergistics of Cr(III) Doping in TiO_2/MWCNTs Nanocomposites: Their Enhanced Physicochemical Properties in Relation to Photovoltaic Studies, Solar Energy, **2020,** 201, 398-408.
13. Hunge, Y. M.; Yadav, A. A.; **Dhodamani, A. G.;** Suzuki, N. C.; Fujishima, T. A.; Mathe, V. L. Enhanced photocatalytic performance of ultrasound treated GO/TiO_2 composite for photocatalytic degradation of salicylic acid under sunlight illumination, Ultrasonicssonochemistry, **2020,** 61, 104849.
14. **Dhodamani, A.G.;** More, K.V.; Mullani, S.B.; Deshmukh, S.P.; Koli, V.B.; Panda, D.K.; and Delekar, S.D. Structural Refinement and Optoelectronic Properties of $(Mo_xTi_{1-2x}O_{2-d})_{1-y}(RGO)_y$ Nanocomposites and Their Photovoltaic Studies with Natural Pigments as Sensitizers, ChemistrySelect, **2020,** 5 (1), 218-230.
15. Shevale, V.B.; **Dhodamani, A.G.** and Delekar, S.D. Catalytic Reclamation of Silver Present in the Photographic Waste using Magnetically Separable $TiO_2@CuFe_2O_4$ Nanocomposites and thereof its use in Antibacterial Activity, ACS Omega, **2020,** 5 (2), 1098-1108.
16. Deshmukh, S.P.; **Dhodamani, A.G.;** Patil, S.M.; Mullani, S.B.; More, K.V.; and Delekar, S.D. Interfacially interactive ternary silver supported polyaniline/multiwalled carbon nanotube nanocomposites for catalytic and antibacterial activity, ACS Omega, **2019,** 5 (1), 219-227.
17. Delekar, S. D.; More, K. V.; **Dhodamani, A. G.**; Panda, D. K.; Maity, K.; Acquah, S. F. A.; Dalal, N. S. Noncovalent Interactions based Self-assembled Bichromophoric Sensitizer for Dye-Sensitized Solar Cells, Journal of Solid State Electrochemistry, **2019**, 23, 1099-1107.
18. Patil, S.M.; Deshmukh, S.P.; More, K.V.; Shevale, V.B.; Mullani, S.B.; Dhodamani, A.G. and Delekar, S.D., Sulfated TiO_2/WO_3 nanocomposite: An efficient photocatalyst for

degradation of Congo red and methyl red dyes under visible light irradiation, Materials Chemistry and Physics, **2019**, 225, 247-255.

19. **Dhodamani, A.G.;** More, K.V.; Koli, V.B.; Shelake, A. R.; Deshpande, N.G.,; Panda,D.K. and Delekar, S.D. Compositional Dependent Physicochemical and Photovoltaic Properties of the $(TiO_2)_{1-x}(RGO)_x$ Nanocomposites for Sensitized Solar Cells Using Ru(II) Dyes, ChemistrySelect, **2019**, 4, 1055-1068.
20. Patil, S. M.; Vanalkar, S. A.; **Dhodamani, A. G.;**Deshmukh, S. P.; Patil, V. L.; Patil, P. S. and Delekar, S. D., NH_3 Gas Sensing performance of ternary $TiO_2/SnO_2/WO_3$ Hybrid Nanostructures prepared by ultrasonic-assisted sol–gel method, Journal of Materials Science: Materials in Electronics, **2018**, 29 (14), 11830-11839.
21. Delekar, S. D.; More, K. V.; **Dhodamani, A. G.**, Panda, D. K., Acquah, S. F. A., Dalal, N., Saha, S. Molecular Self-assembled Designing of TiO_2-Nps-CdS-Qds-Dye Composites for Sandwich Solar Devices, Materials Characterization, **2018,** 139, 337-346.
22. Patil, S. M., **Dhodamani, A. G.,**Vanalkar, S. A., Deshmukh, S. P., Delekar, S. D., Multi-applicative Tetragonal TiO_2/SnO_2 Nanocomposites for Photocatalysis and Gas Sensing, Journal of Physics and Chemistry of Solids, **2018**, 115, 127-136.
23. Delekar, S. D., **Dhodamani, A. G.,** More, K. V., Dongale, T. D., Kamat, R. K., Acquah, S. F. A., Panda, D. K. Structural, Optical Properties of Nanocrystalline TiO_2 with MWCNTs and its Photovoltaic studies using Ru(II)-Sensitizers, ACS Omega, **2018**, 3, 2743−2756.
24. Koli, V. B., **Dhodamani, A. G.**, More, K. V., Acquah, S. F.A., Panda, D. K.,Pawar, S. H., Delekar, S. D. A Simple Strategy for the Anchoring of Anatase Titania on Multi-Walled Carbon Nanotubes for Solar Energy Harvesting, Solar Energy, **2017**, 149 188–194.
25. Shevale, V. B., **Dhodamani, A. G**., Koli, V. B., Barkul, R. P. Jadhav, J. P., Delekar, S. D. Efficient degradation of Azorubin S Colourant in the Commercial Jam-jelly Food Samples Using TiO_2-$CoFe_2O_4$ Nanocomposites in Visible Light, Materials Research Bulletin, **2017**, 89, 79–88.
26. Patil, S. M., Deshmukh, S. P., **Dhodamani, A. G.**, More, K. V., Delekar, S. D. Different strategies for Modification of Titanium Dioxide as Heterogeneous Catalyst in Chemical Transformations, Current Organic Chemistry, **2017**, 20, 999.
27. Koli, V. B., **Dhodamani, A. G.**, Delekar, S. D., Pawar, S. H. In Situ Sol-gel Synthesis of Anatase TiO_2-MWCNTs Nanocomposites and their Photocatalytic Applications, Journal of Photochemistry and Photobiology A: Chemistry, **2017**, 333, 40-48.
28. Koli, V. B., **Dhodamani, A. G.**, Raut, A. V., Thorat, N. D., Pawar, S. H., Delekar S. D. Visible Light Photo-induced Anti-bacterial Aactivity of TiO_2-MWCNTs Nanocomposites

with Varying the Contents of MWCNTs, Journal of Photochemistry and Photobiology A: Chemistry, **2016**, 328, 50-58.

RESEARCH PUBLICATIONS (NATIONAL)

1. Sagar D. Delekar, Krantiveer V. More, Anant G. Dhodamani, Sajid B. Mullani, Tukaram D. Dongale,Prakash S. Pawar,Satish M. Patil, Sunil J. Kadam., Surface Modifications of Binder Free ZnO Nanorod Thin Films through Cds Quantum Dots for Dye Sensitized Solar Cells, Journal of Shivaji University: Science and Technology, 2023, 1(49), 36-49.

BOOK/BOOK CHAPTER PUBLICATION

1. Pawar, P. S., Koyale P. A., Dhodamani A. G., Delekar S. D., Nanocrystaline Metal Oxide based Hybrids for Third Generation Solar Cell Techniques, Elsevier Book: Advances in Metal Oxides and Their Composites for Emerging Applications, 2022, 263-286.

RESEARCH PROJECT (ONGOING/COMPLETED)

Sr. No	Title of Research Project	Funding Agencies	Amount approved	Project Sanctioned
1.	Hybrids of Doped/undoped MxOy ……..Energy conversion and Storage Devices.	S.G.M. College, Karad under RUSA, Govt. of Maharashtra	1,10,000/-	January, 2022
2.	Paper based N-S Doped Carbon Dot Graphene Oxide (CDS@GO) Sensor for Detection and Removal of Neurotoxic Environment Pollutants	S. G. M. College, Karad under Sadguru Research Scheme for College Students (SRSCS)	10,000/-	November,2025

PAPERS PRESENTED/PARTICIPATED IN CONFERENCES

1. One Day Lead College Workshop on “Role of Quality Control and Quality Assurance in Pharmaceutical and Chemical Industry” Organized by Department of Chemistry, R. C. Shahu College, Kolhapur on 15th January, 2022
2. National Webinar on “Soil Sampling” Organized by Department of Chemistry, Y. C. College, Halkarni on 27th August, 2021.
3. One day Workshop on Changing Syllabus of B. Sc III Chemistry organized by Y. C. College of Science, Karad on 11th February, 2021.

4. Two Day International Conference on "Advances in Green Chemistry and Sustainable Technology" organized by Department of Chemistry, Dayanprassarak Mandal's College and Research Centre, Goa, on 29th and 30th September, 2021.
5. Six Day's Online Lecture Series Program under UGC Stride Component-I organized by Department of Chemistry, Shivaji University, Kolhapur on 27th January to 1st February, 2021.
6. One Day Workshop on Change in Syllabus of M. Sc. II (Sem. III) Physical Chemistry Course Organized by Department of Chemistry, R. C. Shahu College, Kolhapur on 21st January, 2021.
7. One Day Training Workshop on" New Changed Syllabus of B. Sc. III, Chemistry Organized by Dr. Patangrao Kadam Mahavidyalaya, Sangali on 16th February, 2021.
8. One Day State Level workshop on "Intellectual Property Rights" Organized by Department of English in Collaboration with IQAC Prof. Dr. N. D. Patil Mahavidyalaya, Malkapur on 19th July, 2021.
9. One Day Workshop on Awareness about Sharing R & D Through I-STEM Portal Organized by SAIF-DST Centre, Shivaji University, Kolhapur on 5th August, 2022.
10. International E-Conference on "Strategies and Challenges in Higher Education During Covid-19 Lockdown Period in India with Reference to the World Organized by Government Vidarbha Institute of Science & Humanities, Amravati, India on 15th – 17th May, 2020.
11. One Day National Conference on "Recent Trends in Pharmaceutical Chemistry and Drug Delivery organized by Department of Chemistry, Rajaram College, Kolhapur on 25th June, 2020.
12. One Day IP awareness/Training Program under NIPAM organized by Intellectual Property Office, India on 5th April, 2022
13. One Day IP awareness/Training Program under NIPAM organized by Intellectual Property Office, India on 2nd , February, 2023

MEMBERSHIP AND OTHER CHARGES

1. Member of American Chemical Society
2. Member of Board of Studies in B.Voc Chemical Technology, Mahaveer College, Kolhapur.
3. Co-coordinator, Syllabus changing workshop of M. Sc II Physical Chemistry

4. Organizing Secretary of two days International Conference on Advances in Science and Technology (ICAST-2022)
5. Programme coordinator of National Webinar on Intellectual Property Rights organized by NIPAM
6. Placement, UGC, and RUSA Coordinator R. C. Shahu College, Kolhapur
7. Coordinator B. Sc. (Entire) Medicinal Chemistry
8. Coordinator of two days National Conference of Innovative approaches in Chemical Sciences (IACS-2023)

ORIENTATION/REFRESHER COURSES

1. Completed Two week Offline Refresher Couse in Chemistry organized UGC-Malaviya Mission-Teacher Training Centre The Hermitage, Kumaun University, Nainital from 1st December to 13th December, 2025.
2. Completed two-week online workshop on "Comprehensive e-Learning to e-Training guide for Administrative Work" from May 25 - June 05, 2020 organized by, TLC, Ramanujan College, University of Delhi.
3. Completed four-week online Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education" from June 26- July 24, 2020, organized by, TLC, Ramanujan College, University of Delhi.
4. Completed one week online short-term FDP on Nanomaterials Characterization Techniques and Result Analysis Methodology: Ideas, Innovations and Initiatives (Chemistry) from 27th July to 31st July, 2020 organized by Shikshan Prasarak Sanstha's S. N. Arts, D. J. Malpani Commerce and B. N. Sarda Science College, Sangamner.
5. Completed two-week online refresher course in Chemistry from 29th November to 13th Dec. 2022, organized by, TLC, Ramanujan College, University of Delhi.
6. Completed one-week MSFDA'S refresher course on Techno-Pedagogy and Techno-Andragogy for Effective Teaching Learning" organized by Symbiosis International University, Pune.

I hereby declared that all the information given above is correct to the best of my knowledge.

Date: 30/10/2025 (Dr. Ananta G. Dhodamani)