

Prof. (Dr.) K. M. Garadkar M.Sc., Ph. D.

Office Address Senior Professor of Physical Chemistry Department of Chemistry, Shivaji University, Kolhapur 416004, Maharashtra, India Mob: +919822846916; +91-2312609167 E-mail: kmg_chem@unishivaji.ac.in	Residential Address C-11 Madhabhavi Park Rajendranagar, Kolhapur 416004, Maharashtra, India +919822846916	
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**Date of Birth 1 June, 1970,
Languages known: English, Marathi, Hindi,
CAREER OBJECTIVE**

The present objective is to establish a group and alliances to work at the interface of chemistry, nanoscience, and biotechnology. To utilize knowledge, analytical skills, and experience to explore multidisciplinary research to create novel materials, advance technologies, and provide technical support to groups with common interests. Interested in developing room temperature operated efficient gas sensors, energy generation and storage, green solar cells, supercapacitors, electrocatalyst for water splitting (HER and OER), battery materials for energy, environmental, technological, and biomedical applications (antibacterial suites, bioactive glasses, and artificial bone materials), most of which we probe for greener elements.

HIGHLIGHTS

Career motivated, good adaptability, a self-starter, and a good team player with a keen eye for detail. Twenty-five years of multidisciplinary research experience and 30 years of teaching experience. Good experience working on academic and industrial research projects. Hands-on experiences with modern material characterization and analytical tools. A simple green chemistry approach of metal oxide nanoparticles (ZnO, TiO₂) without the aid of binders is also developed **Present research *h-index is 55, and i-10 index is 125 with 180+ scientific publications, Present citation are 8000***

RESEARCH/ADMINISTRATIVE EXPERIENCE

- 26 Sept 2024- to date, **Senior Professor of Physical Chemistry**, Department of Chemistry, Shivaji University, Kolhapur, Maharashtra, India.
- 10/04/2014 to 25/09/2024 Sept 2 **Professor of Physical Chemistry**, Department of Chemistry, Shivaji University, Kolhapur, Maharashtra, India.
Member, BOS, Chemistry and Chemical Engineering, Warana University, Warana
Board of studies KLS Gogte Institute of Technology Mumbai University, Mumbai, BOS member
Research Recognition Committee, Shivaji University, Kolhapur
Research Advisory Committee, Department of Chemistry, Shivaji University, Kolhapur
Board of Studies Member, Vivekanand College, Kolhapur
- 1 April 2018- @021, Cordinator of Industrial Chemistry, Shivaji University, Kolhapur, Maharashtra, India

EDUCATION

- ❖ 2000, **Ph.D.**, Department of Chemistry, Shivaji University, Kolhapur
- ❖ Thesis entitled “**Synthesis, characterization, of Cadmium mixed thin films for Photoelectrochemical Applications**”
- ❖ 1993, **M. Sc. Physical Chemistry (First Class)**, Department of Chemistry, Shivaji

TEACHING EXPERIENCE

- ❖ Senior Professor, Department of Chemistry, Shivaji University, Kolhapur (Sept 2024- to date)
- ❖ Professor, Department of Chemistry, Shivaji University, Kolhapur (April 2014- Sept 2024)
- ❖ Associate Professor, Department of Chemistry Shivaji University, Kolhapur 2008 to 202014
- ❖ Assistant Professor 2001 to 2008 Department of Chemistry, Shivaji University, Kolhapur

AWARD/HONOURS HONOURS AND AWARDS

INDIAN RESEARCHERS IN STANFORD UNIVERSITY'S TOP 2% SCIENTISTS LIST FOR THE YEAR 2024 Stanford University Survey 2025

Awarded by: Stanford University

First rank in Chemical Sciences of Shivaji University, Kolhapur, 2023

Awarded by: AD Scientific

Indian Researchers in Stanford University's Top 2% Scientists List for the Year 2023 2023

Awarded by: Stanford University Survey

First rank in Chemical Sciences of Shivaji University, Kolhapur, 2022

Awarded by: AD Scientific

Indian Researchers in Stanford University's Top 2% Scientists List for the Year 2021 2022

Awarded by: Stanford University

First rank in Chemical Sciences of Shivaji University, Kolhapur, 2022

Awarded by: AD Scientific

FIRST RANK IN CHEMICAL SCIENCES OF SHIVAJI UNIVERSITY, KOLHAPUR 2021

Awarded by: AD Scientific

Indian Researchers in Stanford University's Top 2% Scientists List for the Year 2021 2021

Awarded by: Stanford University

Fellow of Maharashtra Academy of Sciences 2020

Awarded by: Maharashtra Academy of Sciences

INSA Fellowship Award 2018

Awarded by: UGC, Govt. of India

Senior Research Fellowship (SRF) 1996

Awarded by: DST, Govt. of India

Junior Research Fellow (J R F) 1994

Awarded by: Department of Science and Technology (DST), Govt. of India

PROFESSIONAL MEMBERSHIPS

American Chemical Society 2022

Member

Life Member, Indian Society for Radiation and Photochemistry, Mumbai. 2015

Life Member

Life Member for Society for Material Science, Mumbai (BARC) 2014

Life Member

Life Member, Indian Association of Nuclear Chemists and allied Scientist (IANCAS) 2010

Life Member

Society of Materials Chemistry, BARC Mumbai 2010

Life Member

SOCIETY FOR MATERIALS CHEMISTRY 2007

Life Member

Indian Society for Radiation and Photochemical Sciences 2003

Life Member

International Journal of Advanced Science and Engineering 2024

Mahendra Associate editor

Material Science Research India

Oriental Scientific Publishing Company, Managing Editor

Chemical Engineering and Process Techniques 2023

CEOS, Editorial board member

COMMITTEE MEMBERSHIPS

Board of Studies in Chemistry, Warana University, Warnanagarana (A State Public University) 2025

Member

Member

Research and Recognition Committee Member, Shivaji University, Kolhapur 2020-2023

2020

Member

MSRI Material Science Research India (MSRI) 2017

Editor

PATENTS 05

JOURNAL EDITORSHIP/EDITORIAL BOARD MEMBER

- ❖ Managing Editor: **Material Science Research India**, *Oriental Scientific Publishing Company*
- Editorial Board Member, **Chemical Engineering and Process Techniques 2023**, *CEOS*,

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JOURNAL REFEREE

❖ ACS Applied Electronic Materials	❖ ACS Applied Energy Materials
❖ ACS Applied Materials & Interfaces	❖ Chinese Chemical Letters
❖ ACS Sustainable Chemistry and Engineering	❖ Advanced Materials Processing Technology
❖ Acta Pharmacologica Sinica	❖ Applied Physics Letters
❖ Advanced Nano Research	❖ Advanced Energy Materials
❖ Applied Organometallic Chemistry	❖ Advanced Nano Research
❖ Applied Physics A	❖ Frontiers in Chemistry
❖ Carbon	❖ Thermochimica Acta
❖ Chemistry of Materials	❖ Inorganic Chemistry Communications
❖ Colloids Surfaces B	❖ Material Chemistry and Physics
❖ Electrochimica Acta	❖ Chem Sus Chem
❖ Energy and Fuels	❖ Intl Journal of Hydrogen Energy
❖ Fuel	❖ Journal of Energy Storage
❖ Green Chemistry Letters	❖ ChemistrySelect
❖ J. Asso. Arab Univ. for Basic and Applied Sciences (JAAUBAS)	❖ Polymers
❖ Journal of the American Society for Mass Spectrometry	❖ Journal of Materials Science
❖ Journal of Chromatography A	❖ RSC Advances
❖ Journal of Electroanalytical Chemistry	❖ Applied Surface Science
❖ Journal of Materials Science	❖ Indian Journal of Materials Science
❖ Journal of Materials Science: Materials in Electronics	❖ Solar Energy
❖ Journal of Petroleum and Gas Engineering (JPGE)	❖ Journal of Luminescence
❖ Journal of Solid State Chemistry	❖ Industrial & Engineering Chemistry Research
❖ Journal of the American Chemical Society	❖ Advanced Materials
❖ Langmuir	❖ Journal of Nanoparticle Research
❖ Materials Research Bulletin	❖ Materials Letters
❖ Materials Science in Semiconductor Processing	❖ Rare Metals
❖ Nanotechnology	❖ Journal of Applied Physics
❖ Process Biotechnology	❖ Chemical Engineering Journal
❖ Rapid Communications in Mass Spectrometry	❖ Surface Coating Technology
❖ Sensor Letters	❖ Journal of Alloys and Compounds
❖ Surface and Interfaces	❖ Material Science and Engineering
❖ Sustainable Energy Technologies and Assessments	❖ Vacuum
❖ ES Energy and Environment	❖ ES Materials and Manufacturing
❖ Green Chem Letts	❖ Journal of Colloids and Interfaces
❖ Journal of Power Sources	❖ Material Science and Engineering
❖ Materials Research Express	❖ Nanoscale

RESEARCH GUIDE

1. Department of **Chemistry**, Shivaji University, Kolhapur.
2. Department of Chemistry SPPune University, Pune.
3. PUBLICATIONS

PUBLICATIONS

1. A sustainable approach for tailoring coir-fibre based bio-adsorbent and its composite for industrial applications

Jatkar C.; Dhabbe R.; Garadkar K.; Kupwade R.; Shen J.; Kumbhar R.; Patil J.; Sabale S.

Biomass Conversion and Biorefinery, Vol. 15 (2025), pp. 7309-7321

2. Phytosynthesis of anisotropic silver and gold nanoparticles: characterization and anticancer activity towards HIO180 and HeyA8 cells

Gavade N.L.; Deshmukh S.P.; Serena Dossou A.; Raut S.; Garadkar K.M.

Spectrochimica Acta Part A Molecular and Biomolecular Spectroscopy, Vol. 333 (2025), pp.

3. Facile Synthesis and Surface Characterization of ZnO-Fe₃O₄ Metal Nanoparticles Composite Using Cow Urine from the Bos Taurus Breed and Its Applications

Hiremath N.G.; Kokare B.; Bhinge S.D.; Patil S.B.; Mane R.; Kulakarni A.; Garadkar K.; Prasad N.; Prasad S.

Bionanoscience, Vol. 15 (2025), pp.

4. Studies on Photocatalytic and Antioxidant Efficacy of Ag-Embedded ZnO Nanocomposites

Dhawale S.K.; Sarvalkar P.D.; Shinde C.S.; Prasad N.R.; Garadkar K.M.; Sharma K.K.K.; Ramteke A.A.

ACS Omega, Vol. 10 (2025), pp. 11948-11960

5. Synthesis of Silver Nanoparticles using Mixed Plant Extract for Antibacterial and Catalytic Applications

Patil S.K.; Teli S.B.; Dhanavade K.S.; Pawar R.A.; Garadkar K.M.

International Journal of Advanced Science and Engineering, Vol. 11 (2025), pp. 4131-4149

6. Structural engineering of metal-organic framework-derived nickel-based carbon spheres for efficient oxygen evolution reaction in alkaline medium

Burud M.; Jadhav V.; Patil S.A.; Patil S.; Avatare A.; Chougale P.; Garadkar K.; Shen J.; Supale A.; Sabale S.; Kim D.k.

International Journal of Hydrogen Energy, Vol. 166 (2025), pp.

7. Evaluation of photocatalytic and antibacterial properties of SnO₂-ZnO nanocomposites developed by Calotropis gigantea leaf extract

Yadav T.P.; Teli S.B.; Salunkhe S.Y.; Deshmukh S.M.; Garadkar K.M.

Next Materials, Vol. 9 (2025), pp.

8. **Carbon dots from banyan aerial roots: A low-cost platform for dual optical sensing of doxorubicin and Fe³⁺ in pharmaceutical formulations**
Khandagale P.;Jadhav V.;Pattanshetti A.;Mane-Gavade S.;Patil S.;Kakade R.;Garadkar K.;Patil S.A.;Nipane S.;Sabale S.
 Microchemical Journal , Vol. 219 (2025) , pp.
9. **Hierarchical Porous Activated Carbon from Wheat Bran Agro-Waste: Applications in Carbon Dioxide Capture, Dye Removal, Oxygen and Hydrogen Evolution Reactions** *Koli A.;Kumar A.;Pattanshetti A.;Supale A.;Garadkar K.;Shen J.;Shaikh J.;Praserthdam S.;Motkuri R.K.;Sabale S.*
 Chempluschem , Vol. 89 (2024) , pp.
10. **Biogenic fabrication of ZnO–SnO₂ nanocomposite for effective photodegradation of toxic industrial dyes**
Gawade V.V.;Teli S.B.;Sabale S.R.;Dhabbe R.V.;Dhanavade K.S.;Garadkar K.M.
 Research on Chemical Intermediates , Vol. 50 (2024) , pp. 323-338
11. **Magnetically separable NiFe₂O₄ nanoparticles: synthesis and photocatalytic activity**
Patil R.P.;Teli S.B.;Jadhav V.D.;Kamble P.D.;Garadkar K.M.
 Journal of Materials Science Materials in Electronics , Vol. 35 (2024) , pp.
12. **Agro-waste management through sustainable production of activated carbon for CO₂ capture, dye and heavy metal ion remediation**
Koli A.;Pattanshetti A.;Mane-Gavade S.;Dhabbe R.;Kamble R.;Garadkar K.;Sabale S.
 Waste Management Bulletin , Vol. 2 (2024) , pp. 97-121
13. **Synergetic Effect of Microporosity, Composition, and Surface Functionality of Nanoporous Activated Carbon: An Interface for CO₂Capture and Supercapacitor Applications**
Pattanshetti A.;Koli A.;Burud M.;Dhabbe R.;Garadkar K.;Shaikh J.;Praserthdam S.;Chavan V.D.;Kim D.k.;Sabale S.
 ACS Sustainable Resource Management , Vol. 1 (2024) , pp. 721-731
14. **Biogenic CdFe₂O₄ nanorods for sunlight-assisted photodegradation and cytotoxicity study**
Patil R.P.;Teli S.B.;Gophane A.;Patil A.R.;Kadam J.J.;Kamble P.D.;Garadkar K.M.
 Research on Chemical Intermediates , Vol. 50 (2024) , pp. 2267-2289
15. **Nanostructured TiO₂ sensitized with CuS quantum dots for solar energy conversion**
Pawar R.A.;Teli S.B.;Patil S.S.;Garadkar K.M.
 Research on Chemical Intermediates , Vol. 50 (2024) , pp. 5183-5199
16. **Biogenic CdFe₂O₄ nanorods for sunlight-assisted photodegradation and cytotoxicity study**
Patil, Rohini P.;Teli, Shivanand B.;Gophane, A.;Patil, Amitkumar R.;Kadam, Jagannath J.;Kamble, Pradip D.;Garadkar, Kalyanrao M.

17. **Fabrication of visible-active ZnO-gC₃N₄ nanocomposites for photodegradation and cytotoxicity of methyl orange and antibacterial activity towards drug resistance pathogens**
Bhosale A.;Gophane A.;Kadam J.;Sabale S.;Sonawane K.;Garadkar K.
Optical Materials , Vol. 136 (2023) , pp.
18. **Environmentally sustainable synthesis of SnO₂ nanostructures for efficient photodegradation of industrial dyes**
Gawade V.V.;Sabale S.R.;Dhabbe R.S.;Garadkar K.M.
Journal of Materials Science Materials in Electronics , Vol. 34 (2023) , pp.
19. **Efficient photodegradation of methyl orange and bactericidal activity of Ag doped ZnO nanoparticles**
Bhosale A.;Kadam J.;Gade T.;Sonawane K.;Garadkar K.
Journal of the Indian Chemical Society , Vol. 100 (2023) , pp.
20. **Enhanced photoactivity effect of Ag metal loading on Zr⁴⁺ doped N-TiO₂ obtained by microwave assisted method**
Dhabbe R.;Gawade V.;Kumbhar K.;Sabale S.;Garadkar K.
Indian Journal of Chemistry Ijc , Vol. 62 (2023) , pp. 618-626
21. **Nanocrystalline TiO₂ sensitized with CdS quantum dots for photoelectrochemical study**
Pawar R.A.;Teli S.B.;Shinde H.M.;Bhuse V.M.;Garadkar K.M.
Applied Physics A Materials Science and Processing , Vol. 129 (2023) , pp.
22. **Enhanced photoactivity effect of Ag metal loading on Zr⁴⁺doped N-TiO₂ obtained by microwave assisted method**
Dhabbe, Rohant;Gawade, Vinayak;Kumbhar, Kabir;Sabale, Sandip;Garadkar, Kalyanrao
Indian Journal of Chemistry - Section B Organic and Medicinal Chemistry (2023)
23. **NiFe₂O₄ nanoparticles for non-volatile bipolar resistive switching memory device**
Patil R.P.;Nikam A.S.;Teli S.B.;Takaloo A.V.;Kamat R.K.;Dongale T.D.;Kamble P.D.;Garadkar K.M.
Semiconductor Science and Technology , Vol. 38 (2023) , pp.
24. **Biogenic fabrication of ZnO–SnO₂ nanocomposite for effective photodegradation of toxic industrial dyes**
Vinayak V Gawade, Shivanand B Teli, Sandip R Sabale, Rohant V Dhabbe, Kiran S Dhanavade, Kalyanrao M Garadkar
Research on Chemical Intermediates , Vol. (2023) , pp. 1-16
25. **Photocatalytic degradation of malachite green using hydrothermally synthesized cobalt- doped TiO₂ nanoparticles**
Kamble R.J.;Gaikwad P.V.;Garadkar K.M.;Sabale S.R.;Puri V.R.;Mahajan S.S.
Journal of the Iranian Chemical Society , Vol. 19 (2022) , pp. 303-312
26. **Microwave-assisted sol-gel synthesis of CeO₂–NiO nanocomposite based NO₂ gas sensor for selective detection at lower operating temperature**

27. Photovoltaic Solar Application Study of Cu_{0.5}Zn_{0.5}Se Thin Films by Chemical Bath Deposition Method

Rathod K.C.; Sanadi K.R.; Kamble P.D.; Kamble G.S.; Gaur M.L.; Garadkar K.M.

Materials Research , Vol. 25 (2022) , pp.

28. Growth Mechanism, Structural and Photoelectrochemical Study of Zinc Tellurium Thin Film

Rathod K.C.; Sanadi K.R.; Kamble P.D.; Kamble G.S.; Gaur M.L.; Garadkar K.M.

Asian Journal of Chemistry , Vol. 34 (2022) , pp. 715-719

29. Green synthesis of TiO₂/CDs nanohybrid composite as an active photocatalyst for the photodegradation of methyl orange

Kuldeep A.R.; Waghmare R.D.; Garadkar K.M.

Journal of Materials Science Materials in Electronics , Vol. 33 (2022) , pp. 7933-7944

30. Determination of 4-nitrophenol using MoO₃ loaded glassy carbon electrode via electrochemical sensing approach

Kamble B.B.; Garadkar K.M.; Sharma K.K.; Kamble P.; Tayade S.N.; Ajalkar B.D.

Journal of Electrochemical Science and Engineering , Vol. 11 (2021) , pp. 143-159

31. Eco-friendly synthesis of Ag-ZrO₂ nanocomposites for degradation of methylene blue

Shinde H.M.; Kite S.V.; Shirke B.S.; Garadkar K.M.

Journal of Materials Science Materials in Electronics , Vol. 32 (2021) , pp. 14235-14247

32. Photoelectrochemical and photocatalytic activity of nanocrystalline TiO₂ thin films deposited by chemical bath deposition method

Pawar R.A.; Dubal D.P.; Kite S.V.; Garadkar K.M.; Bhuse V.M.

Journal of Materials Science Materials in Electronics , Vol. 32 (2021) , pp. 19676-19687

33. Nanostructured TiO₂ Sensitized with MoS₂ Nanoflowers for Enhanced Photodegradation Efficiency toward Methyl Orange

Kite S.V.; Kadam A.N.; Sathe D.J.; Patil S.; Mali S.S.; Hong C.K.; Lee S.W.; Garadkar K.M.

ACS Omega , Vol. 6 (2021) , pp. 17071-17085

34. Photocatalytic and antibacterial activities of ZnO nanoparticles synthesized by chemical method

Bhosale A.S.; Abitkar K.K.; Sadalage P.S.; Pawar K.D.; Garadkar K.M.

Journal of Materials Science Materials in Electronics , Vol. 32 (2021) , pp. 20510-20524

35. Development of g-C₃N₄-TiO₂ visible active hybrid photocatalyst for the photodegradation of methyl orange

Kuldeep A.R.; Dhabbe R.S.; Garadkar K.M.

Research on Chemical Intermediates , Vol. 47 (2021) , pp. 5155-5174

36. LPG gas sensor activities of CeO₂-Fe₂O₃ nanocomposite thin film at optimum temperature

37. Bio-mediated synthesis of ZnO nanostructures for efficient photodegradation of methyl orange and methylene blue

Gawade V.V.; Sabale S.R.; Dhabbe R.S.; Kite S.V.; Garadkar K.M.

Journal of Materials Science Materials in Electronics, Vol. 32 (2021) , pp. 28573-28586

38. Photocatalytic Degradation of Methyl Orange by Magnetically Retrievable Supported Ionic Liquid Phase Photocatalyst

Naikwade A.G.; Jagdale M.B.; Kale D.P.; Gophane A.D.; Garadkar K.M.; Rashinkar G.S.

ACS Omega , Vol. 5 (2020) , pp. 131-144

39. Biogenic synthesis of gold-anchored ZnO nanorods as photocatalyst for sunlight-induced degradation of dye effluent and its toxicity assessment

Gavade N.L.; Kadam A.N.; Babar S.B.; Gophane A.D.; Garadkar K.M.; Lee S.W.

Ceramics International , Vol. 46 (2020) , pp. 11317-11327

40. Enhanced photocatalytic performance of TiO₂-carbon nanocomposite

Kuldeep A.R.; Bhosale A.S.; Garadkar K.M.

Journal of Materials Science Materials in Electronics , Vol. 31 (2020) , pp. 9006-9017

41. Novel chemical approach to synthesis and characterization of greener and rock-like Cu₂ZnSnS₃Se (CZTSSe) thin films of kasterite structure

Jirage S.; Pagare P.; Garadkar K.; Delekar S.; Bhuse V.

Materials Today Proceedings , Vol. 43 (2020) , pp. 2774-2779

42. Highly efficient photodegradation of 4-nitrophenol over the nano-TiO₂ obtained from chemical bath deposition technique

Kite S.V.; Sathe D.J.; Kadam A.N.; Chavan S.S.; Garadkar K.M.

Research on Chemical Intermediates , Vol. 46 (2020) , pp. 1255-1282

43. Biogenic synthesis of gold-anchored ZnO nanorods as photocatalyst for sunlight-induced degradation of dye effluent and its toxicity assessment

Gavade, Nana L.; Kadam, Abhijit N.; Babar, Santosh B.; Gophane, Anna D.; Garadkar, Kalyanrao M.; Lee, Sang-Wha

Ceramics International (2020)

44. Highly efficient photodegradation of 4-nitrophenol over the nano-TiO₂ obtained from chemical bath deposition technique

Kite, S. V.; Sathe, D. J.; Kadam, A. N.; Chavan, S. S.; Garadkar, K. M.

Research on Chemical Intermediates (2020)

45. Ionic liquid assisted synthesis of chromium oxide (Cr₂O₃) nanoparticles and their application in glucose sensing

Kamble B.B.; Naikwade M.; Garadkar K.M.; Mane R.B.; Sharma K.K.K.; Ajalkar B.D.; Tayade S.N.

Journal of Materials Science Materials in Electronics , Vol. 30 (2019) , pp. 13984-13993

46. **An innovative transformation of waste toner powder into magnetic g-C₃N₄-Fe₂O₃ photocatalyst: Sustainable e-waste management**
Babar S.;Gavade N.;Shinde H.;Gore A.;Mahajan P.;Lee K.H.;Bhuse V.;Garadkar K.
 Journal of Environmental Chemical Engineering , Vol. 7 (2019) , pp.
47. **Nanostructured TiO₂ thin films by chemical bath deposition method for high photoelectrochemical performance**
Kite S.V.;Sathe D.J.;Patil S.S.;Bhosale P.N.;Garadkar K.M.
 Materials Research Express , Vol. 6 (2019) , pp.
48. **Photocatalytic degradation of methyl orange by Eu doped SnO₂ nanoparticles**
Bhosale T.T.;Kuldeep A.R.;Pawar S.J.;Shirke B.S.;Garadkar K.M.
 Journal of Materials Science Materials in Electronics , Vol. 30 (2019) , pp. 18927-18935
49. **Structural and morphological studies of chemically deposited nanocrystalline and nano- flower like Cu₂ZnSnSe₄ thin films**
Jirage S.;Pagare P.;Garadkar K.;Bhuse V.
 Materials Today Proceedings , Vol. 45 (2019) , pp. 3950-3954
50. **An efficient fabrication of ZnO–carbon nanocomposites with enhanced photocatalytic activity and superior photostability**
Babar S.B.;Gavade N.L.;Bhopate D.P.;Kadam A.N.;Kokane S.B.;Sartale S.D.;Gophane A.;Garadkar K.M.;Bhuse V.M.
 Journal of Materials Science Materials in Electronics , Vol. 30 (2019) , pp. 1133-1147
51. **Biosynthesis of ZrO₂ nanoparticles from Ficus benghalensis leaf extract for photocatalytic activity**
Shinde H.M.;Bhosale T.T.;Gavade N.L.;Babar S.B.;Kamble R.J.;Shirke B.S.;Garadkar K.M.
 Journal of Materials Science Materials in Electronics , Vol. 29 (2018) , pp. 14055-14064
52. **Microwave-assisted sol-gel synthesis of metal oxide nanomaterials**
Garadkar K.;Kadam A.;Park J.
 Handbook of Sol Gel Science and Technology Processing Characterization and Applications , Vol. (2018) ,
 pp. 483-504
53. **Biosynthesis of SnO₂ nanoparticles by aqueous leaf extract of Calotropis gigantea for photocatalytic applications**
Bhosale T.T.;Shinde H.M.;Gavade N.L.;Babar S.B.;Gawade V.V.;Sabale S.R.;Kamble R.J.;Shirke B.S.;Garadkar K.M.
 Journal of Materials Science Materials in Electronics , Vol. 29 (2018) , pp. 6826-6834
54. **Evolution of Waste Iron Rust into Magnetically Separable g-C₃N₄-Fe₂O₃ Photocatalyst: An Efficient and Economical Waste Management Approach**
Babar S.;Gavade N.;Shinde H.;Mahajan P.;Lee K.H.;Mane N.;Deshmukh A.;Garadkar K.;Bhuse V.
 ACS Applied Nano Materials , Vol. 1 (2018) , pp. 4682-4694
55. **Visible Light-Driven high Photocatalytic Activity of Cu-Doped TiO₂ Nanoparticles Synthesized by Hydrothermal Method**

56. **Evolution of Waste Iron Rust into Magnetically Separable g-C₃N₄-Fe₂O₃ Photocatalyst:**
An Efficient and Economical Waste Management Approach
(2018)
57. **Effect of leavening agent on structural and photocatalytic properties of ZnO nanorods**
Babar S.;Gavade N.;Park J.;Garadkar K.;Bhuse V.
Journal of Materials Science Materials in Electronics , Vol. 28 (2017) , pp. 8372-8381
58. **Enhanced photocatalytic activity of europium doped TiO₂ under sunlight for the degradation of methyl orange**
Khade G.V.;Gavade N.L.;Suwarnkar M.B.;Dhanavade M.J.;Sonawane K.D.;Garadkar K.M.
Journal of Materials Science Materials in Electronics , Vol. 28 (2017) , pp. 11002-11011
59. **Effect of annealing temperature on properties of molybdenum disulfide thin films**
Kite S.;Chate P.;Garadkar K.;Sathe D.
Journal of Materials Science Materials in Electronics , Vol. 28 (2017) , pp. 16148-16154
60. **Sunlight driven high photocatalytic activity of Sn doped N-TiO₂ nanoparticles synthesized by a microwave assisted method**
Kadam A.;Dhabbe R.;Shin D.;Garadkar K.;Park J.
Ceramics International , Vol. 43 (2017) , pp. 5164-5172
61. **Synthesis, spectroscopic characterization, luminescence and NLO properties of heterometallic M(II)-Ru(II) (M=Ni and Zn) hybrid complexes composed of coordination and organometallic sites**
Chavan S.;Pawal S.;Lolage S.;Garadkar K.
Journal of Organometallic Chemistry , Vol. 853 (2017) , pp. 18-26
62. **Fabrication of M@Cu_xO/ZnO (M= Ag, Au) Heterostructured Nanocomposite with Enhanced Photocatalytic Performance under Sunlight**
Gavade N.L.;Babar S.B.;Kadam A.N.;Gophane A.D.;Garadkar K.M.
Industrial and Engineering Chemistry Research , Vol. 56 (2017) , pp. 14489-14501
63. **Microwave synthesis of In-doped TiO₂ nanoparticles for photocatalytic application**
Suwarnkar M.;Khade G.;Babar S.;Garadkar K.
Journal of Materials Science Materials in Electronics , Vol. 28 (2017) , pp. 17140-17147
64. **Green synthesis of ZnO nanoparticles by using Calotropis procera leaves for the photodegradation of methyl orange**
Gawade V.V.;Gavade N.L.;Shinde H.M.;Babar S.B.;Kadam A.N.;Garadkar K.M.
Journal of Materials Science Materials in Electronics , Vol. 28 (2017) , pp. 14033-14039
65. **Erratum to: Enhanced photocatalytic activity of europium doped TiO₂ under sunlight for the degradation of methyl orange**
Journal of Materials Science: Materials in Electronics, (2017), 28, 15, (11002-11011), 10.1007/s10854-017-6883-9)

66. **Morphological evolution of Cu doped ZnO for enhancement of photocatalytic activity**
Kadam A.N.;Kim T.G.;Shin D.S.;Garadkar K.M.;Park J.
Journal of Alloys and Compounds , Vol. 710 (2017) , pp. 102-113
67. **Synthesis, Characterization and Electromagnetic Studies of Novel Mn Substituted MgCo₂O₄ Synthesized by Sol-Gel Method**
Mali, A. V.;Delekar, S. D.;Garadkar, K. M.;Hankare, P. P.
Materials Focus (2017)
68. **Photocatalytic performance of magnetically separable Fe, N co-doped TiO₂-cobalt ferrite nanocomposite**
Gaikwad P.N.;Hankare P.P.;Wandre T.M.;Garadkar K.M.;Sasikala R.
Materials Science and Engineering B , Vol. 205 (2016) , pp. 40-45
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