# Mr. PRASHANT DHANAJI SARVALKAR

## Research Scholar,

School of Nano-science and Technology,

Shivaji University, Vidyanagar, Kolhapur-416004,

Maharashtra, India.



## **Objective**

Aim to be associated with a progressive organization that gives me the scope to apply my knowledge and skills in the work entrusted to me and want to excel in the organization on the threshold of integrity, hardworking, learning, and using my skill for better use.

#### **Research Interests**

- 1. Material science
- 2. Synthesis of nanomaterials and its application
- 3. Synthesis of Aerogel and its application

#### **Education**

Degree/Certificate	Year of passing	University/Board	Marks obtained
Integrated B.Sc M.Sc. (Nano-science & technology)	May 2019	Shivaji University, Kolhapur	65.04 %
H.S.C	May 2014	Maharashtra State Board	52.46 %
S.S.C	April 2012	Maharashtra State Board	74.55 %

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#### **ORCID ID:**

https://orcid.org/ 0000-0001-6768-6797

# **SCOPUS ID:**

https://www.scopus.com/a uthid/detail.uri?authorId=5 7218556280

> Web of Science Researcher ID: GMX-1873-2022

#### Google Scholar:

https://scholar.google.co m/citations?hl=en&user= pH6kT9wAAAAJ

#### Publications submitted and under review

- 1. **Prashant D. Sarvalkar,** Rutuja R. Mandavkar, Mansingraj S. Nimbalkar, Kiran K. Sharma, Pramod S. Patil, Ganesh S. Kamble & Neeraj R. Prasad. Bio-mimetic synthesis of catalytically active nano-silver using Bos Turus (A-2) urine. (**Scientific Report: Nature**)
- Sarvalkar, P. D., Vadanagekar, A. S., Karvekar, O. S., Kumbhar, P. D., Terdale, S. S., Thounaojam, A. S., ... & Sharma, K. K. K. (2023). Thermodynamics of Azo Dye Adsorption on a Newly Synthesized Titania-Doped Silica Aerogel by Cogelation: A Comparative Investigation with Silica Aerogels and Activated Charcoal. ACS omega.
- 3. Bos Taurus (A-2) urine assisted bioactive cobalt oxide anchored ZnO: a

## **Contact No:**

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## **Birth Date:**

Feb 23, 1997

## **Postal Address:**

Kolhapur, Maharashtra, INDIA 416 004

- novel nanoscale approach. Omkar S. Karvekar, Apurva S. Vadanagekar, **Prashant D. Sarvalkar**, Suresh S. Suryawanshi, Sarita M. Jadhav, Richa D. Singhan, Jyoti P. Jadhav, Kiran Kumar K. Sharma & Neeraj R. Prasad.

  (**Scientific Report: Nature**)
- 4. Synthesis of a Ag/rGO nanocomposite using Bos taurus indicus urine for nitroarene reduction and biological activity. Gouri S Kumbhar, Shubham V Patil, **Prashant D Sarvalkar**, Apurva S Vadanagekar, Omkar S Karvekar, Sharadchandra S Patil, Manali R Rane, Deepti N Kurhe, Neeraj R Prasad. (**RSC advances**)
- Omkar S. Karvekar, Prashant D. Sarvalkar\*, Apurva S. Vadanagekar, Richa D. Singhan, Sarita M. Jadhav, Mansingraj S. Nimbalkar, Neeraj R. Prasad. Biogenic synthesis of silver anchored ZnO nanorods as nano catalyst for organic transformation reactions and dye degradation. (Applied Nanoscience (Switzerland)).
- 6. **Prashant D. Sarvalkar**, Shubham D. Barawkar, Omkar S. Karvekar, Pandurang D. Patil, Saurabh R. Prasad, Kiran Kumar Sharma, Neeraj R. Prasad & Rajiv S. Vhatkar. A review on multifunctional nanotechnological aspects in modern textile. (**Journal of the Textile Institute**)
- 7. M. N. Padvi, N. G. Hiremath, S. R. Prasad, A. Nayak, R. A. Bohara, Y. Attrar, A. A. Ramteke, and **Prashant Sarvalkar**. Bos taurus Urine Assisted Biosynthesis of CuO Nanomaterials: A New Paradigm of Antimicrobial and Antineoplatic Therapy. (**Macromolecular Symposia**)
- 8. A. I. Biradar, **Prashant D. Sarvalkar**, S. B Teli P. S. Patil1, N.R. Prasad. Photocatalytic degradation of dyes using one-step synthesized silica nanoparticles. (**Materials Today: Proceedings**)
- 9. Rai Dhirendra Prasad, A.K.Sahoo, Om Prakash Shrivastav, Naresh Charmode, Saurabh R Prasad, Rakesh Kamat, N. G. Kajave, Jinesh Chauhan, Sunnera Banga, Ujma Tamboli, M.S. Pandharpatte, R.H. Atigre, Viquar Shaikh, M.N.Padvi, **Prashant Sarvalkar** & Neeraj R Prasad. A Review on Aspects of Nanotechnology in Food Science and Animal Nutrition. (ES Food & Agroforestry)
- 10. **Prashant D. Sarvalkar,** Saurabh R. Prasad, Omkar Karvekar, Mukesh N. Padvi, Walmic B. Shirsat, Neeraj R. Prasad. A review on concept of nanotechnology in textile engineering. (**Textile Trends**)

- 11. Rai Dhirendra Prasad, Naresh Charmode, Om Prakash Shrivastav, Saurabh R Prasad, Asha Moghe, Anant Samant, **Prashant D Sarvalkar** and Neeraj R Prasad. A Review on Concept of Nanotechnology in Veterinary Medicine. (ES Food & Agroforestry)
- 12. Rai Dhirendra Prasad, Omkar S Karvekar, Prajakta B Powar, Naresh Charmode, Om Prakash Shrivastav, Saurabh R Prasad, Suneera Banga, Milind B Patil, **Prashant D Sarvalkar\***, Dr. Neeraj R Prasad. A Review on Nanotechnological Aspects in Veterinary Medicine. (**Research Journal of Life Sciences**, **Bioinformatics**, **Pharmaceutical and Chemical Sciences**)
- 13. Rai Dhirendra Prasad, C. B. Desai, O. P. Shrivastav, Naresh Charmode, S. R. Prasad, Anant Samant, Ramkrishna Mirajkar, Suneera Banga, V. S. Shaikh, M. N. Padvi, Sardar Patil, Anil Kumar Vaidya, Y. I. Shaikh, A. K. Sharma, S. B. Teli and Prashant Sarvalkar. A Critical Review on Design and Development of Carbonaceous Materials for Veterinary Medicine. (ES Food & Agroforestry)
- 14. A Critical Review on Recent Developments in Advanced Supercapacitors.
  Rai Dhirendra Prasad, Saurabh R Prasad, Rai Yashendra Prasad, CB Desai,
  RD Kale, TS Bhat, Om Prakash Srivastava, Suneera Banga, Amit Patil,
  Bhayashree Kamble, Archana Kanthe, Ajay Saxena, Sanjay Saxena,
  Kayshap Saxena, Prashant Sarvalkar, AK Sharma (ES Food & Agroforestry)

# **Research Experiences**

- Reviewer-
  - ✓ Journal of applied surface science advances (Elsevier),
  - ✓ Journal of Current Research in Green and Sustainable Chemistry (Elsevier),
  - ✓ Journal of Materials Today: Proceedings (Elsevier) and
  - ✓ International journal of basic and applied sciences (INSc).
- Editor-
  - ✓ Book titled "Futuristic Trends in Chemical, Material Sciences & Nano Technology". Volume 2, Book 12, 2022, IIP Proceedings
- (UGC stride program) STRIDE Component I short-term project

Title: Preparation and Characterization of Alumina Thin Film and Its Applications as Anti-corrosive And Thermal Insulation Coating.

• School of nanoscience and technology and department of physics, Shivaji University, Kolhapur

# Oct-2019 – April 2020.

## Departmental research fellow

Nanochemistry laboratory and space & Material science laboratory. (Working on Bio-synthesis of Ag and other transition metal nanoparticles and their application as a heterogeneous Nanocatalyst).

• Full One-year research project during Masters's Level.

Title: Synthesis of SiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> Aerogel by Sol-Gel Method and Evaluation their Physio-chemical Properties.

### **Skill: Instrumentation**

- High & low temperature pressure reactor
- Contact angle
- Photochemical Reactor
- Electrospinning
- Spray pyrolysis
- Spin coating
- Dip Coating
- Successive Ionic Layer adsorption and Reaction (SILAR).

## **Skill: Technical**

- Synthesis of low density (monolithic) Aerogel
- Synthesis of nanostructures (nanofiber and nanorod)
- Antibacterial activity

# Skill: Characterization and interpretation

- UV-visible spectroscopy
- FT-IR
- Spectrofluorometer
- Raman Spectroscopy
- DLS with Zeta potential

#### **Extracurricular activities**

- Winner- INSc- Research Excellence Award-2021
- Paper presentation in "International Conference on Emerging Trends in Material Science" dated 9<sup>th</sup> & 10<sup>th</sup> November, 2022 jointly organized by Department of Physics & Chemistry in association with IQAC, D. P. Bhosale College, Koregaon, District- Satara, Maharashtra, India.
- Paper presentation in "Emerging role of radiation in nanotechnology: Fundamental to translational research" dated 15<sup>th</sup> Octomber, 2022 jointly organized by Indian society for radiation and

photochemical sciences (ISRAPS) and School of nanoscience and technology, Shivaji university, Kolhapur.

- Participation in "Management development program on nanoscience and nanotechnology the next step to industrial innovations" dated 29<sup>th</sup> march 2022 organized by school of nanoscience and technology, Shivaji university, Kolhapur.
- Participation in DST & ACS Virtual Workshop October 30, 2020.
- Participation in 2<sup>nd</sup> INTERNATIONAL TWITTER CONFERENCE #NANOBIO20.
- Poster presentation in 4<sup>th</sup> international conference on physics of materials & materials based device fabrication (ICPM-MDF-2019), organized by Department of Physics, Shivaji University, Kolhapur, Maharashtra, India -416004.
- Participation in 1<sup>ST</sup> INTERNATIONAL TWITTER CONFERENCE #NANOBIO19.
- Participation in National Conference on Recent Trends in Nanomaterials Sept. 2017 organized by Dept.
   of Nanoscience and Technology, YCIS, Satara, Maharashtra, India.

## Personal skill

- Strong interpersonal communication in English.
- Decision making ability with involving team members.
- Positive attitude and can adapt different platform and languages quickly.
- A dynamic ability to work under pressure & meet the deadlines.
- Self-starter, smart-worker &task-oriented approach.

## **Declaration**

I hereby declare that the particulars given above are true to the best of my knowledge and belief.

Place: Kolhapur, India.

Date: 21/04/2022

Mr. Prashant Dhanaji Sarvalkar.