CURRICULUM VITAE

DR.MAQSOOD RAFIQUE WAIKAR

CONTACT DETAILS

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LANGUAGES

English, Marathi, Hindi, and Urdu.

DATE OF BIRTH

1st June, 1993

PERMANENT ADDRESS

A/P- House No 12, Tuljabhawani Nagar, Ujalaiwadi, Dist-Kolhapur Maharashtra, Pin-416004

AREAS OF SPECILIZATION

1. Material Science.
2. Energy storage.
3. Gas Sensing.
4. Radiation Physics.

RESEARCH PUBLICATIONS

No. of articles	**28**
Citations	**450**
h-Index	**11**
i10-Index	**12**
As per the google scholar	

OBJECTIVE:

- To become an asset in the institution or organization to my personal and institutional or organizational growth with full dedication to fulfill the needs of the institution.
- To utilize my skills and my knowledge to research, invent or discover to bring new advancement and addition to proliferate the existing body of knowledge of Physics.
- To find a decent position in a reputed organization or institution to gain good career advancement through long efforts and consistent performance with innovative work techniques.

EDUCATIONAL DETAILS:

Degree	Board/University	Year	Grade
Ph.D. (Physics)	Shivaji University, Kolhapur	2021	Awarded
SET	Savitribai Phule University, Pune	2019	Qualified
M.Sc. (Physics)	Shivaji University, Kolhapur	2015	First-class
B.Sc. (Physics)	Shivaji University, Kolhapur	2013	Distinction
HSC	Kolhapur Board	2010	Second Class
SSC	Kolhapur Board	2008	Distinction

Details of Ph.D.

Title of Ph.D. Problem -	**"EFFECT OF GAMMA IRRADIATION ON COPPER OXIDE BASED SYMMETRICAL ENERGY STORAGE DEVICE"** The work is based on the synthesis of CuO electrodes by a simple and cost-effective method like CBD to fabricate a supercapacitor device. Further, the device is exposed to gamma radiation to study the possible enhancement in the electrochemical performance of devices.

COMPUTER PROFICIENCY:

- Proficiency in Handling Windows and Ubuntu operating systems.
- Microsoft office-MS Word, MS-Excel, MS-PowerPoint.
- Proficient in documentation and communication tasks such as email, reports, and letter writing.
- Awareness of different software such as Origin, Gatan, and Image J.
- Capable to learn new advancements in different software and can be dealt with any computer operations.

EXTRACURRICULAR ACTIVITIES:

- Participated in College Functions, National and International Conferences, and Workshops.
- Organized various Hands on Training workshops (under STUTI, STRIDE schemes) for researcher's, faculty members, and industry persons.
- Gives **Hands on Training** on **X-ray Photoelectron Spectroscopy** and **Transmission Electron Microscopy** to participants through STUTI program.

PROJECT DETAILS:

- Worked as SRF on IUAC, New Delhi sanctioned major research project from 11th Aug. 2017 to 18th Sept. 2019 in Shivaji University, Kolhapur.

PROFESSIONAL EXPERIENCE:

- Working as Assistant Professor (Temporary post) at School of Nano Science and Biotechnology, Shivaji University, Kolhapur since 9th August 2023.
- Worked as Senior Project Associate on STUTI program funded by Department of Science and Technology, Ministry of Science and Technology, GoI, New Delhi. **Also, Handling XPS, AFM, XRD and TEM instruments since April 2022. In-charge of 14 sophisticated instrument at SAIF-DST-CFC, Shivaji University, Kolhapur.**
- Worked as Assistant Professor at Padmabhooshan Vasantraodada Patil Institute of Technology, Budhgaon, Sangli, Maharashtra from January 2021 to April 2022.
- Enrolled in several lectures of sophomores from February 2020 to March 2020.
- Worked as Team Associate Trainee (Quality Department) in Kirloskar Oil Engine Limited (KOEL), Kagal Plant from 27th Jan. 2017 to 02nd Oct. 2017.

PUBLICATION DETAILS:

1.	**M. R. Waikar**, A. S. Rasal, N. S. Shinde, S. D. Dhas, A. V. Moholkar, M. D. Shirsat, S. K. Chakarvarti, R. G. Sonkawade (2020), "Electrochemical Performance of Polyaniline Based Symmetrical Energy Storage", Materials Science in Semiconductor Processing, 120, 105291, [**I.F.=4.644**], Publisher: Elsevier. DOI: https://doi.org/10.1016/j.mssp.2020.105291
2.	**M. R. Waikar**, P. M. Raste, R. K. Sonker, V. Gupta, M. Tomar, M. D. Shirsat. R. G. Sonkawade (2020), "Enhancement in NH_3 sensing performance of ZnO thin-film via gamma-irradiation", Journal of Alloys and Compounds, 830, 154641, [**I.F.=6.371**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.jallcom.2020.154641.

3.	**M. R. Waikar**, R. K. Sonker, S. Gupta, S. K. Chakarvarti, R. G. Sonkawade (2020), "Post-γ - irradiation effects on structural, optical and morphological properties of chemical vapour deposited MWCNTs", Materials Science in Semiconductor Processing, 110, 104975, [**I.F.=4.644**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.mssp.2020.104975.
4.	**M. R. Waikar**, A. A. Shaikh, R. G. Sonkawade (2019), "The supercapacitive performance of woollen-like structure of CuO thin films prepared by the chemical method", Vacuum, 161, 168-175, [**I.F.=4.11**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.vacuum 2018.12.034.
5.	**M. R. Waikar**, A. A. Shaikh, R. G. Sonkawade (2019), "PANINFs synthesized electrochemically as an electrode material for energy storage application", Polymer Bulletin, 76, 4703-4718, [**I.F.=2.57**], Publisher: Springer, DOI: https://doi.org/10.1007/s00289-018-2634-1.
6.	Suman A Sawant, **Maqsood R Waikar**, Gayatri R Chodankar, Sunny R Gurav, Ashwini V Patil, Rajiv S Vhatkar, Rajendra G Sonkawade (2024), "A redox additive electrolyte boosted supercapacitive energy density of wrinkled RGO sheets", Journal of Energy Storage, 76, 109739, [**I.F.= 9.4**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.est.2023.109739.
7.	Sunny R Gurav, Aniket R Sonkawade, **Maqsood R Waikar**, Umesh V Shembade, Annasaheb V Moholkar, Shiv K Chakarvarti, Rajendra G Sonkawade (2023), " Fine-Tuning Interconnected Leaf-Like Architecture of Co-MOFs by Varying Linker Concentrations for Solid-State Supercapacitors", Colloids and Surfaces A: Physicochemical and Engineering Aspects, In Press, [**I.F.=5.2**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.ijhydene.2023.08.299.
8.	Satish A Mahadik, Rajendra G Sonkawade, Fernando Pedraza, Lahu B Phadatare, Akshy K Bhagate, **Maqsood R Waikar** (2023), "Enhancing photoelectrochemical performance through surface engineering of CdSe and Al-doped CdSe nanoparticles on ZnO/FTO photoanodes", International Journal of Hydrogen Energy, In Press, [**I.F.=7.2**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.ijhydene.2023.08.299.
9.	Pradnya G. Raje, Sunny R. Gurav, **Maqsood R. Waikar**, Akash S. Rasal, Jia-Yaw Chang, R. G. Sonkawade 2022: The review of different dimensionalities based pristine metal organic frameworks for supercapacitor application. Journal of Energy Storage, 56, 105700, [**I.F. = 8.907]**, Publisher: Elsevier. DOI: https://doi.org/10.1016/j.est.2022.105700.
10.	S. A. Sawant, A. V. Patil, **M. R. Waikar**, Akash S. Rasal, S. D. Dhas, A. V. Mohalkar, R. S. Vhatkar, R. G. Sonkawade 2022: Advances in chemical and biomass-derived graphene/graphene-like nanomaterials for supercapacitors, Journal of Energy Storage, 51, 104445, [**I.F. = 8.907]**, Publisher: Elsevier. DOI: https://doi.org/10.1016/j.est.2022.104445
11.	S. D. Dhas, P. S. Maldar, M. D. Patil, **M. R Waikar**, R. G. Sonkawade, S. K. Chakravarti, S. K. Shinde, D. Y. Kim, A.V. Moholkar 2021: Probing the electrochemical properties of NiMn2O4 nanoparticles as prominent electrode materials for supercapacitor applications, Material science and engineering B, 271, 115298, [**I.F. = 3.407]**, Publisher: Elsevier, DOI: https://doi.org/10.1016/j.mseb.2021.115298.
12.	S. D. Dhas, P. S. Maldar, M. D. Patil, S. A. Mane, **M. R. Waikar**, R. G. Sonkawade, A. V. Moholkar (2021), "Fabrication of efficient electrochemical capacitors rooted in sol-gel derived $NiMn_2O_4$ nanoparticles", Journal of Electroanalytical Chemistry, 897, 115548 [**I.F.=4.598**], Publisher: Elsevier, DOI:https://doi.org/10.1016/j.jelechem.2021.115548.
13.	R. G. Sonkawade, **M. R. Waikar**, A. A. Shaikh, M. D. Shirsat, Y. Ali, S. K. Chakarvarti (2021), "Effect of low energy Li-negative ions irradiation on electrochemically synthesized Copper nanoflakes/Polyaniline nanofibers composite thin film", Thin Solid Films, 730, 138710, [**I.F.=2.358**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.tsf.2021.138710
14.	S. D. Dhas, P. S. Maldar, M. D. Patil, **M. R. Waikar**, R. G. Sonkawade, S. K. Chakarvarti, S. K. Shinde, D. Y. Kim, A. V. Moholkar (2021), " Probing the electrochemical properties of $NiMn_2O_4$ nanoparticles as prominent electrode materials for supercapacitor applications", Materials Science and Engineering: B, 271, 115298, [**I.F.=3.407**], Publisher: Elsevier, DOI:https://doi.org/10.1016/j.mseb.2021.115298.
15.	S. A. Sawant, **M. R. Waikar**, A. S. Rasal, G. R. Chodankar, S. D. Dhas, A. V. Moholkar, M. D. Shirsat, S. K. Chakarvarti, and R. G. Sonkawade (2021), "Chemical synthesis and supercapacitive evaluation of polyaniline nanofibers (PANINFs)", Journal of Materials Science: Materials in Electronics, 32, 11865-11876, [**I.F.= 4.682**], Publisher: Springer, DOI:

	https://doi.org/10.1007/s10854-021-05816-7.
16.	S.D. Dhas, P.S. Maldar, M.D. Patil, K.M. Hubali, U.V. Shembade, S.B. Abitkar, **M. R. Waikar**, R.G. Sonkawade, G.L. Agawane, A.V. Moholkar (2021), "Hydrothermal synthesis of mesoporous $NiMnO_3$ nanostructures for supercapacitor application: Effect of electrolyte", Journal of Energy Storage, 35, 102277, [**I.F.=8.907**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.est.2021.102277.
17.	P. M. Raste, B. K Sahoo, A. K. Bakshi, A. C Patra, Deepa Sathian, Mudit Beck, **M. R. Waikar**, A.A. Shaikh, R. G. Sonkawade (2020), "A study on natural radioactivity and potential of ^{222}Rn, ^{220}Rn exhalation from Deccan table land of Kolhapur district, Maharashtra, India", Journal of Radioanalytical and Nuclear Chemistry, 326, 1333–1341, [**I.F. = 1.754**], Publisher: Springer, DOI: https://doi.org/10.1007/s10967-020-07384-2.
18.	S. D. Dhas, P. S. Maldar, M. D. Patil, A. B. Nagare, **M. R. Waikar**, R. G. Sonkawade, A. V. Moholkar (2020), "Synthesis of NiO nanoparticles for supercapacitor application as an efficient electrode material" Vacuum, 181, 109646 [**I.F.=4.11**] Publisher: Elsevier. DOI: https://doi.org/10.1016/j.vacuum.2020.109646
19.	A. A. Shaikh, **M. R. Waikar**, R. G. Sonkawade (2019), "Effect of different precursors on electrochemical properties of manganese oxide thin films prepared by SILAR method", Synthetic Metals, 247, 1-9, [**I.F.= 4.0**], Publisher: Elsevier, DOI: https://doi.org/10.1016/j.synthmet.2018.11.009.
20	A. A. Shaikh, **M. R. Waikar**, R. G. Sonkawade (2019), "Effect of different concentration of KMnO4 precursor on supercapacitive properties of MnO thin films", Journal of Electronic Materials, 48, 8116-8128 [**I.F.=2.047**]. DOI: https://doi.org/10.1007/s11664-019-07648-y
21	R. G. Sonkawade, I. V. Bagal, N. R. Chodankar, **M. R. Waikar**, P. S. Shinde, A. A. Shaikh (2018), "Gamma Irradiation: An efficient way to enhance current carrying properties of Ag/Ppy composite", Journal of Materials Science: Materials in Electronics, 29, 11151-11158 [**I.F.= 4.682**], Publisher: Springer, DOI: 10.1007/s10854-018-9199-5.
22	P. M. Raste, B. K. Sahoo, J. J. Gaware, Anil Sharma, **M. R. Waikar**, A. A. Shaikh, R. G. Sonkawade (2018), "Assessment of radon in the soil and water in Kolhapur district, Maharashtra, India", Radiation Protection Dosimetry, 138, 1-6. [**I.F.=0.954**] Publisher: Oxford press. https://doi.org/10.1093/rpd/ncy039.

BOOK CHAPTERS

1.	Shital J Shinde, **Maqsood R Waikar**, Rakesh K Sonker, Rajendra G Sonkawade (2023): Optical Sensors Based on Polymeric Materials, Publisher: Springer Nature Singapore, DOI: https://doi.org/10.1007/978-981-99-6014-9_10.
2.	Satyashila D Ghongade, Pradnya G Raje, **Maqsood R Waikar**, Rakesh K Sonker, Rajendra G Sonkawade (2023): An Introduction: Advanced Functional Materials for Sensing Application, Publisher: Springer Nature Singapore, DOI: https://doi.org/10.1007/978-981-99-6014-9_1.
3.	Sohel B Shaikh, **Maqsood R Waikar**, Rakesh A Mohite, Satish B Jadhav, Chandrakant D Lokhande, Padmaja N Pawaskar (2023): Carbon-Based Functional Materials for Optical Sensors, Publisher: Springer Nature Singapore, DOI: https://doi.org/10.1007/978-981-99-6014-9_6.
4.	Satyashila D. Ghongade, **Maqsood R. Waikar**, Rakesh K. Sonker, Shiv K. Chakaravarti, and R. G. Sonkawade (2022): Gas Sensors Based on Hybrid Nanomaterial, Publisher: Springer Nature, DOI: https://doi.org/10.1007/978-981-19-2685-3_13.
5.	Azeem M. Bagwan, **Maqsood R. Waikar**, Rakesh K. Sonker, Shiv K. Chakaravarti, and R. G. Sonkawade (2022): Gas Sensors Based on Ferrite Materials, Publisher: Springer Nature, DOI: https://doi.org/10.1007/978-981-19-2685-3_14.

6.	S.R. Gurav, **M.R. Waikar**, A.S. Rasal, R.K. Sonker, R.G. Sonkawade (2022): Current Developmet and challenges in Textile-Based Flexible Supercapacitors, Publisher: Taylor and Francis, DOI: 10.1201/9781003186755-29.

INVITED TALKS

1.	**Maqsood R. Waikar**, "X-ray Photoelectron Spectroscopy: A Surface Analysis tool for researcher", 7 Day Hands on Training workshop at **SAIF-DST-CFC, Shivaji University, Kolhapur** from 5th to 11th December 2022.
2.	**Maqsood R. Waikar**, "A Surface Analysis tool: X-ray Photoelectron Spectroscopy", 7 Day Hands on Training workshop at **The Maharaja Sayajirao University of Baroda**, **Gujarat** from 11th to 17th December 2022.
3.	**Maqsood R. Waikar**, "X-ray Photoelectron Spectroscopy: A Surface Sensitive Technique and its operational parameters", 7 Day Hands on Training workshop at **Manipal Institute of Technology, Manipal, Karnataka** from 5th to 11th January 2023.
4.	**Maqsood R. Waikar**, "X-ray Photoelectron Spectroscopy: A Surface Sensitive Technique and its operational parameters", 7 Day Hands on Training workshop at **Sant Gadge Baba Amravati University, Amravati**, from 17th to 23rd January 2023.
5.	**Maqsood R. Waikar**, "XPS-Surface sensitive technique: Detailed Operational parameters", 7th Day Hands on Training workshop at **Karnataka University, Dharwad, Karnatak**, from 23rd to 29th January 2023.
6.	**Maqsood R. Waikar**, "XPS-Surface sensitive technique: Detailed Operational parameters", 7 Day Hands on Training workshop at **Shri Venkateshwara University, Tirupati, Andhra Pradesh**, from 25th to 31st January 2023.
7.	**Maqsood R. Waikar**, "XPS-Surface sensitive technique: Detailed Operational parameters", 7 Day Hands on Training workshop at **SAIF-DST-CFC, Shivaji University, Kolhapur**, from 30th to 05th February 2023.
8.	**Maqsood R. Waikar**, "XPS-A surface-sensitive strategy: Instrumentation & Operational parameters", "S&T Capacity Building Series", 'Talk to Expert'**, organized by I-STEM Linkage Research and Resources, funded by GoI, India** on 22nd June 2023.

DECLARATION:

I hereby declare that all the statements made in this CV are true to the best of my knowledge and belief.

Your's Faithfully

Date: 05/12/2023

Place: Kolhapur **Dr. Maqsood Rafique Waikar**