Ashaq Hussain Sofi, Ph.D.

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https://scholar.google.com/citations?user=fvts2rkAAAAJ&hl=en

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https://www.researchgate.net/profile/Ashaq-Sofi

Career Objectives

- To create an engaging and student-centered learning environment that fosters critical thinking, creativity, and a love for learning among students.
- Collaborate with colleagues to enhance departmental programs and contribute to the overall growth and reputation of the institution.
- Conduct meaningful and impactful research in my field, contributing to the existing body of knowledge. Publish research findings in reputable journals and present at conferences to share insights with the academic community.
- Pursue additional certifications, attend conferences, and engage in workshops to enhance my teaching skills and knowledge.

Academic Qualification

- Ph.D. Physics-28th December 2018
  Department of Physics, National Institute of Technology Srinagar, J&K, India-19006
  Thesis Title: Optical and Electrical Properties of Indium Oxide and its Derivatives
- Masters in Physics (M.Sc.)-2009
  Department of Physics, University of Kashmir, J&K, India-190006
  Percentage: 69.80%

Skills

Languages ◈ English, Urdu, Kashmiri

Software Packages ◈ Oringin9.0, Powder XRD, Nano-scope, Imagej, SRIM

Experimental Skills ◈ XRD, SEM, UV-visible Spectrometer. Hall Measurements, AFM (Analysis), TEM (Analysis).

Miscellaneous ◈ Microsoft Office Package, *LATEX* Typesetting.

Teaching Experience

- Lecturer in the Department of Applied Sciences, IOT-Zakura, University of Kashmir, J&K, India w.e.f. 8th April 2024 – 31st December 2024.

  Courses Taught: Engineering Physics/Engineering Physics Lab, and Electrodynamics.
- Lecturer in the Department of Applied Sciences, IOT-Zakura, University of Kashmir, J&K, India w.e.f. 16th February 2023 – 31st December 2023.

  Courses Taught: Engineering Physics/Engineering Physics Lab, and Electrodynamics.
- Lecturer in the Department of Applied Sciences, IOT-Zakura, University of Kashmir, J&K, India w.e.f. 1st February 2022- 31st January 2023.

  Courses Taught: Engineering Physics/Engineering Physics Lab, and Electrodynamics.
- Lecturer in the Department of Applied Sciences, IOT-Zakura, University of Kashmir, J&K, India w.e.f. 23th March 2021 - 31st December 2021.

  Courses Taught: Engineering Physics/Engineering Physics Lab, and Electrodynamics.
- Lecturer in the Department of Physics, Government Degree College Ganderbal, J&K, India w.e.f. 2nd May 2020 - 26th December 2020.

  Courses Taught: Mechanics, Optics, Basic Electronics, and Physics Lab.
- Assistant Professor in the Department of Physics, Central University of Kashmir, (CUK-Ganderbal), J&K, India w.e.f. 15th March 2019 - 19th December 2019.

  Courses Taught: Electrodynamics, Statistical Mechanics, and Physics Lab.
- Teaching Assistant in ICSC Hawal, Srinagar, J&K, India-19006 w.e.f. 5th September 2009 - 10th January 2010.

  Courses Taught: Mechanics, and Physics Lab.

Research Interests

Metal Oxides, Transparent Conducting Oxides (TCOs), Nanomedicine, Energy Harvesting.

Research Publications

Journal Articles

- Kumar, A., **Sofi, A. H.,** Hamza, B., Rubab, S., & Shah, M. A. (2024). Eco-friendly synthesis of antibacterial CuO nanoparticles using garlic bulb extract. *Green Materials*, 1-10.

- Kumar, A., **Sofi, A. H.,** & Shah, M. A. (2023). Augmented Structural and Optical Features of CuO- and Al-Doped CuO Nanostructures. *Iranian Journal of Science*, *47*(5), 1883-1891.
- **Sofi, A. H**., & Shah, M. A. (2019). Structural and electrical properties of copper doped In_2O_3 nanostructures prepared by citrate gel processes. *Materials Research Express*. *Mater. Res. Express* **6** 045039.
- Devi, H. S., **Sofi, A. H**., Singh, T. D., & Shah, M. A. (2019). Facile Hydrothermal Synthesis of Cu and Al Oxide Nanoparticles for Photodegradation of Chlorpyrifos. *Journal of nanoscience and nanotechnology*, *19*(12), 7707-7713.
- Rukh, S., **Sofi, A. H.,** Shah, M. A., & Yousuf, S. (2019). Antibacterial activity of magnesium oxide nanostructures prepared by hydrothermal method. *Asian Journal of Nanosciences and Materials*, *2*(4), 425-430.
- **Sofi, A. H**., Shah, M. A., & Asokan, K. (2018). Structural, optical and electrical properties of ITO thin films. *Journal of Electronic Materials*, *47*(2), 1344-1352.
- **Sofi, A. H.**, Shah, M. A., & Asokan, K. (2018, April). Effect on the properties of ITO thin films in Gamma environment. In *AIP Conference Proceedings* (Vol. 1942, No. 1, p. 080034). AIP Publishing LLC.
- Akhoon, S. A., **Sofi, A. H.**, Rubab, S., & Shah, M. A. (2017). Enhanced structural and electrochemical properties of $LiMn_2O_4$ nanocubes. *Journal of Electronic Materials*, *46*(2), 992-998.
- **Sofi, A. H.,** Shah, M. A., & Asokan, K, (2017). Synthesis of Indium Oxide Nanostructures and their Growth Mechanism. Journal of Basic and Applied Engineering Research- Krishi Sanskriti Publications, Volume 4, Issue 7; 592-595.
- Mohmed, F., Irfan, S., **Sofi, A. H.,** Dar, F. A., Hussain, M., & Ahmad, A. (2017). Role of cerium doping on epitaxial yttrium iron garnet thin films. *J Powder Metall Min*, *6*(171), 2.
- **Sofi, A. H.**, Abubakr, B., & Shah, M. A. (2016). Enhancement of figure of merit of thermoelectric materials: a new theoretical approach. *Thermophysics and Aeromechanics*, *23*(2), 255-260.
- Maini, A., **Sofi, A. H.**, & Shah, M. A. (2016). Agglomerated Copper Oxide (CuO) Nanostructures and Their Growth Mechanism. *Advanced Science Letters*, *22*(4), 1042-1044.
- Dar, F. A., **Sofi, A. H.**, & Shah, M. A. (2015). Boehmite (AlOOH) nanostrips and their growth mechanism. *International Nano Letters*, *5*(2), 67-70.
- **Sofi, A. H.**, Maini, A., & Shah, M. A. (2014). Contamination Free Indium Tin Oxide (ITO) Nanoparticles Prepared without Additives. *Technology Letters*, *1*(7), 10-13.

- **Sofi, A. H.**, & Shah, M. A. (2014). The study of the structural and morphology features of indium tin oxide (ITO) nanostructures. *Materials Research Express*, *1*(1), 015041.

International Conferences / Symposia

- International Conference on Nanotechnology for Better Living (NBL-2019), Jointly organized by National Institute of Technology (NIT) Srinagar and Indian Institute of Technology (IIT) Kharagpur; April 7 – 11, 2019, SKUAST, Shalimar Srinagar, J&K, India.
- 62nd DAE Solid State Physics Symposium. Sponsored by Board of Research in Nuclear Sciences, Department of Atomic Energy, Government of India. Baba Atomic Research Centre, Mumbai between 26 and 30 December, 2017.
- International Conference on Innovative Research in Applied Physical, Chemical, Mathematical, Sciences, Statistics and Emerging Energy Technology for Sustainable Development (APCMSET-2017). Organized by Krishi Sanskrit Publications on 11th November, 2017, Convention Centre Jawaharlal Nehru University, New Delhi, India.
- International Conference on Nanotechnology for Better Living (NBL-2016), Jointly organized by National Institute of Technology (NIT) Srinagar and Indian Institute of Technology (IIT) Kanpur; May 25 – 29, 2016, National Institute of Technology (NIT) Srinagar, J&K, India.

National Conferences/Workshops

- National Conference-2018 on ROLE OF SAHA IN GROWTH OF PHYSICS. Organized by Department of Physics, National Institute of Technology Srinagar on 6th October, 2018.
- National Conference on Recent Innovations in Science, Technology and Engineering (RISTE'2017'), 16th December-2017, National Institute of Technology (NIT) Srinagar.
- One week National Level Workshop on CONNECTING PEOPLE TO NATURE (CPTN-2017), 25th – 29th September, 2017 at National Institute of Technology (NIT) Srinagar.

Published Books & Book Chapters

- **Sofi, A. H**., Akhoon, S. A., Mir, J. F., & Rather, M. U. D. (2021). Magnesium Oxide (MgO): A Viable Agent for Antimicrobial Activity. In *Applications of Nanomaterials in Agriculture, Food Science, and Medicine* (pp. 98-105). IGI Global.
- Akhoon, S. A., **Sofi, A**. H., Khan, R. A., Tantray, A. M., & Rubab, S. (2021). Application of LiMn2O4 Nanostructures as Efficient Cathodes for Energy Storage Devices. In *Applications of Nanomaterials in Agriculture, Food Science, and Medicine* (pp. 204-228). IGI Global.
- **Sofi, A. H**., & Shah, M. A. (2016). Nanotechnology: An insight. *LAP Lambert Academic Publishing, Germany*. ISBN: 978-3-659-84978-7.

National/State Level Tests Qualified

- JEST in Physics, JEST-2014
- JKSET in Physics, JKSET-2016

Personal Details

Name: Ashaq Hussain Sofi

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D.O.B: 05/06/1983

References

- **Dr. S Rubab**

  Professor (Physics)

  NIT Srinagar, Jammu& Kashmir, India-190006

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- **Dr. Vijay Raj Singh**

  Professor (Physics)

  Central University of South Bihar, Gaya, India-824236

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- **Dr. M. A. Shah**

  Professor (Physics)

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