

## PERSONAL INFORMATION



### Dr. Shabir Ahmad Akhoo

Address: Malla Bagh , Hazratbal Srinagar, Jammu and Kashmir- India

Telephone: 9622420741: 7780902272

E-mail: akhoo.shabir@yahoo.com : shabir\_20phd11@nitsri.net

Date of Birth : 28/02/1984  
Marital Status : Married  
Nationality : Indian  
Known Languages : English, Urdu, Hindi, Kashmiri

---

## EXPERIENCE

**National Institute of Technology Srinagar** *Sep 2009 - Dec 2011*  
Lecturer  
Teaching of physics at graduate level

**National Institute of Technology Srinagar** *May 2012 - May 2017*  
Teaching assistant  
Teaching of physics at graduate level

**University of Kashmir** *June 2017 - Till date*  
Lecturer  
Teaching of physics at graduate level

---

## EDUCATION

**National Institute of Technology Srinagar** 2018  
Doctor of Philosophy

**University of Kashmir** 2009  
Masters of Science in Physics

**University of Kashmir** 2011  
Bachelor of education

---

## ACHIEVEMENTS & AWARDS

---

### Publications:

Akhoo, S. A., Rubab, S., & Shah, M. A. (2015). A Review of Various Nanostructures to Enhance the Efficiency of Solar-Photon-Conversions. *Nanotechnology Applications for Improvements in Energy Efficiency and Environmental Management*, 277-312.

Shah, Mohammad Ashraf., Sofi, Ashaq Hussain., Sibuea, M. Rosalinda., Akhoo, Shabir Ahmad., Rather, Asloob Ahmad., Nahvi, Ishaq (2014). "A Study of Magnetic Behaviour for Nanoparticles." *American Journal of Nanomaterials*, 2,(1), 1-3.

Akhoo, S. A., Rubab, S., & Shah, M. A. (2015). A benign hydrothermal synthesis of nanopencils-like zinc oxide nanoflowers. *International Nano Letters*, 5(1), 9-13.

Akhood, S. A., Rubab, S., & Sachin, K. C. (2016). Oxidative-Etching Modified Sol-Gel Synthesis of ZnO Nanorods. *Advanced Science Letters*, 22(1), 212-215

Akhood, S. A., Sofi, A. H., Rubab, S., & Shah, M. A. (2017). Enhanced Structural and Electrochemical Properties of LiMn<sub>2</sub>O<sub>4</sub> Nanocubes. *Journal of Electronic Materials*, 46(2), 992-998.

Akhood, S. A., Rubab, S., & Shah, M. A. (2017). Enhanced cycling properties and better rate capabilities of Al-doped LiMn<sub>2</sub>O<sub>4</sub> nanorods and nanospheres. *Materials Research Express*, 4(10), 105016.

Akhood, S. A., Rubab, S. (2019). Nanostructured Cathodes for Lithium Ion Batteries: Nanotechnology Paves the Way Forward. KS Omniscriptum Publishing, 2019; 3659835609, 84.

Sofi, A. H., Akhood, 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.

Akhood, S. A., Sofi, A. H., Khan, R. A., Tantray, A. M., & Rubab, S. (2021). Application of LiMn<sub>2</sub>O<sub>4</sub> Nanostructures as Efficient Cathodes for Energy Storage Devices. In *Applications of Nanomaterials in Agriculture, Food Science, and Medicine* (pp. 204-228). IGI Global.

Khan, R. A., Akhood, S. A., GV, V., Rubab, S., Kumaravelu, T. A., & Dong, C. L. (2022). Al-doped LiMn<sub>2</sub>O<sub>4</sub> nanostructures for environmentally benign supercapacitor applications. *Materials Technology*, 1-10.

Khan, R. A., Akhood, S. A., Vijayaraghavan, G. V., Rubab, S., Shah, M. A., Arul, K. T., & Dong, C. L. (2022). The novel LiMn<sub>1.8</sub>Al<sub>0.2</sub>O<sub>4</sub> nanosheets for high energy and power density supercapacitor cathode applications. *Ionics*, 28(10), 4805-4815.

#### Conferences

Akhood, S. A., Rubab, S., & Shah, M. A. (2013). Nanostructured cathodes for LiIon batteries: Synthesis and Application. Regional science congress (ISCA) and 9th J&K Science Congress, Vol. 1, PHY-7, p. 288.

Rubab, S., Akhood, S. A. (2014). Oxidative-Etching Modified Sol-Gel Synthesis of ZnO Nanorods. International Conference on Emerging Materials and Characterization and Application.

Akhood, S. A., Rubab, S., Sachin, K. C., Sofi, A. H., Sheikh, S. A., & Shah, M. A. (2016). Enhanced structural and optical properties of ZnO nanorods synthesized via a modified sol-gel method. *International Conference on Nanotechnology for Better Living*. Vol. 3, No. 1, p. 43, DOI: 10.3850/978-981-09-7519-7nbl16-rps-43.

Akhood, S. A., Rubab, S., & Shah, M. A. (2017). Template free synthesis of LiMn<sub>2</sub>O<sub>4</sub> nanocubes. *International Conference on Advanced Rechargeable Batteries and Allied Materials*. Vol. 1, p. 52.

Akhood, S. A., Rubab, S., & Shah, M. A. (2017). One pot synthesis of highly efficient, Al-doped LiMn<sub>2</sub>O<sub>4</sub> nanorods as cathodes for lithium ion batteries. *Growth Points in Physics (GPP-2017)*. p. 06.

Akhood, S. A., Rubab, S., & Shah. M. A. (2018). World's energy concerns and the future role of renewable energy conversion and storage devices. *Role of Saha in growth of Physics (2018)*.

#### Awards

*International Conference on Nanotechnology for Better Living*. Vol. 3, No. 1, p. 43, DOI: 10.3850/978-981-09-7519-7nbl16-rps-43. (**3<sup>RD</sup> Prize**)

*Internatonal Conference on Advanced Rechargeable Batteries and Allied Materials*. Vol. 1, p. 52. (**3<sup>RD</sup> Prize**)

#### Projects:

“Detection of neutrons using BF<sub>3</sub> proportional counter” at Bhaba atomic research centre (BARC), Srinagar, under the supervision of Prof. M. Sabiuddin (Nuclear Research Laboratory, BARC, Srinagar).

“Cathode materials for Li-Ion battery and synthesis of LiMn<sub>2</sub>O<sub>4</sub>” at Centre for materials for electronics technology, Pune, India, under the supervision of Dr. Bharat B. Kale (Scientist and Head; Nanocomposite Laboratory, CMET, Pune).

#### Participations and organization activities:

“National Workshop on Advances in Astronomy and Astrophysics” (2009), November 6, 2009.

“Two-Day short term course on Research Methodology in Nano Sciences” (2011), December 9-10, 2011.

“International Conference and Workshop on Nanostructured Ceramics and other Nanomaterials” (ICWNCN-2012), March 13-16, 2012.

“Inspire Science Camp at National Institute of Technology Srinagar, 2012”, March 17-21, 2012.

“Inspire Science Camp at National Institute of Technology Srinagar, 2012”, May 19-23, 2012

“Recent trends in Material Science Research” (RTMSR-2012), September 3-5, 2012.

“National Mission on Education through Information Communication Technology Awareness Workshop” (NME-ICT, 2013), June 19, 2013.

“National Conference on Nanomaterials and Devices” (NCONAD-2013), October 30, 2013.

“National conference on Advances in Materials and Materials Processing” (AMMP2015), May 22-23, 2015.

#### Journal Reviewer:

“Journal of Saudi Chemical Society”