

Bio Data of Dr. Sindhu Singh

Name : Dr. Sindhu Singh
Father's Name : Sri Devi Prasad Singh
Husband's Name : Sri Ashwani Kumar Singh
Address for correspondence : Department of Physics & Electronics,
Dr. Rammanohar Lohia Avadh University,
Faizabad, (U.P.), 224001
Phone : 09415991334 (M)
E-mail: : sindhuceramic@gmail.com
Date of Birth : 25.08. 1978
Nationality : Indian
Marital Status : Married



Educational Qualification :

Examination	Board/University	Division	Year	% of Mark	Subject
Ph.D.	B. H.U. Varanasi		2008		Physics
M.Sc.	D.D.U.Gorakhpur University	I st	2000	66.2	Physics (Electronics)
B.Sc.	D.D.U.Gorakhpur University	I st	1998	67.4	Physics, Chemistry, Maths
Intermediate	U.P. Board, Allahabad	I st	1994	67.6	Physics, Chemistry, Maths., Hindi, English
High School	U.P. Board, Allahabad	I st	1992	66.5	Science-2, Maths.-2, Hindi, English, Biology, Social Science

Other Examination Qualified:

- i. GATE – 2003
- ii. CSIR-NET JRF 2002 (Jointly conducted by UGC and CSIR)

Fellowship Awarded:

Employment Institution	Position held	Period		Awarder of Fellowship
		From	To	
I.T., B.H.U., Varanasi	S.R.F.	1 st Dec., 2005	30 th Nov., 2008	C.S.I.R., New Delhi
I.T., B.H.U., Varanasi	J.R.F.	11 th Nov., 2003	30 th Nov., 2005	C.S.I.R., New Delhi

Ph. D. Thesis Title: “Synthesis, Structure and Electrical Characterization of Co, La and Ca Doped Barium Stannate Titanate Perovskite”

Field of Interest- Electronic Ceramics and Dielectric Materials

Work Experience-

Employment Institution	Position held	Period	
		From	To
Indian Naval Academy, Ezhimala, Kerala	Lecturer	29 th April, 2009	15 th Jan., 2010
Dr. Ram Manohar Lohia Avadh University, Faizabad	Assistant Professor	18 th Jan., 2010	Till date

Teaching Experience- UG (9 months), PG (10⁺ years)

Techniques used for – characterization

- Structural studies using **XRD**
- Microstructural studies using **Optical Microscope** and **SEM**
- TGA/DTA studies using **Thermal analyzer**
- Grain and grainboundary characteristics using **Impedance Spectroscopy**
- Dielectric studies and I-V characteristics using **Impedance Analyzer**

Instruments Operated

- Optical Microscope (Leitz)
- Thermal analyzer (LINSEIS Germany)
- X-ray Diffractometer (Seifert)
- Impedance analyzer (HIOKI-LCR Meter)
- Thermo-Electric Power measurement

Instruments designed & fabricated: Low temperature dielectric measurement unit

Administrative work experience:

Worked as Assistant Superintendent of Girls Hostel from August 2010 to May 2014.

Worked as Deputy Coordinator for LLB entrance Examination.

Worked as member of anti ragging committee.

Worked as member in different admission committees.

Worked as member of different bodies such as Board of studies etc.

Paper Published in International Journals

1. Dibyendu Chakravarty, Prakash Singh, **Sindhu Singh**, Devendra Kumar, Om Parkash
“Electrical conduction behavior of high dielectric constant perovskite oxide $\text{La}_x\text{Ca}_{1-3x/2}\text{Cu}_3\text{Ti}_4\text{O}_{12}$ ” *Journal of Alloys and Compounds*, **438**, 253-257, 2007
2. **S. Singh**, P. Singh, O. Parkash and D. Kumar
Synthesis, microstructure and electrical properties of Ti doped SrSnO_3 ,
Advances in Applied Ceramics **106**, 231-234, 2007
3. O. Parkash, Devendra Kumar, R. K. Dwivedi, K.K.Srivastava, Prakash Singh, **Sindhu Singh**
“Effect of simultaneous substitution of La and Mn on dielectric behavior of barium titanate ceramic”
Journal of Materials Science **42**, 5490-5496, 2007
4. Om Parkash, Devendra Kumar, Anubha Goyal, Anupriya Agrawal, Ankita Mukherjee, **Sindhu Singh** and Prakash Singh
“Electrical Behaviour of Zirconium Doped Calcium Copper Titanium Oxide”
Journal of Physics D: Applied Phys **41**, 035401, 2008
5. Prakash Singh, Prabhakar Singh, **Sindhu Singh**, Om Parkash and Devendra Kumar
“Electrical conduction behavior and impedance analysis of Gd and Mn substituted strontium titanate”
Journal of Materials Science, **43**, 989-1001, 2008
6. Prabhakar Singh, Benjamin J. Brandenburg, Peter C. Sebastian, Prakash Singh, **Sindhu Singh**
Devendra Kumar and Om Parkash
“Electronic Structure, Electrical and Dielectric Properties of BaSnO_3 Below 300K”
Japanese Journal of Applied Physics **47**, 3540-3545, 2008
7. Archana Pandey, **Sindhu Singh**, Abhishek Prasad, Om Parkash and Devendra Kumar
“Effect of Manganese and Cobalt Doping on Conductivity of ZnO Based Varistors: A Study by Complex Plane Modulus”
Journal of Materials Science: Materials in Electronics **19**, 1122-1127, 2008,
8. **Sindhu Singh**, Prabhakar Singh, Om Parkash, and Devendra Kumar
“Structural and relaxor behavior of $(\text{Ba}_{1-x}\text{La}_x)(\text{Ti}_{0.85}\text{Sn}_{0.15})\text{O}_3$ ceramics obtained by solid state reaction”
Journal of Alloys and Compounds **493**, 522–528, 2010
9. **Sindhu Singh**, Prabhakar Singh, Om Parkash, and Devendra Kumar
“Dielectric properties of calcium doped $\text{BaTi}_{0.85}\text{Sn}_{0.15}\text{O}_3$: A diffuse phase transition”
Materials Chemistry and Physics **123**, 786–790, 2010
10. Ashutosh Kumar Dubey, Prakash Singh, **Sindhu Singh**, Devendra Kumar and Om Parkash
“Charge compensation, electrical and dielectric behavior of lanthanum doped $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ”
Journal of Alloys and Compounds **509**, 3899-3906, 2011

11. **Sindhu Singh**

“Study of Diffuse Phase Transition in Co Doped Ba(Ti_{0.85}Sn_{0.15})O₃”
Journal on Material Science, **6(2)**, 30-36, 2018

12. **Sindhu Singh,**

“Synthesis and Structural Behavior of Co Doped Ba(Ti_{0.85}Sn_{0.15})O₃”
International Journal of Scientific Research and Reviews **7(3)**, 128-135, 2018

Papers Presented in Various Conferences/Symposium:

1. “Synthesis and Dielectric Behavior of Some Ti Doped Strontium Stannate”

Sindhu Singh, P. Singh, C.R.Gautam, O. Parkash and D.Kumar

In Proceedings of “International Symposium of Research Students on Material Science and Engineering” December 20-22, 2004, IIT Chennai, India

2. “Synthesis, Structure and Electrical conduction behaviour of the System Sr_{1-x}Nd_xTi_{1-x}Mn_xO₃”

Prakash Singh, **Sindhu Singh**, C.R.Gautam, Devendra Kumar and Om Parkash

In Proceedings of “International Symposium of Research Students on Material Science and Engineering” December 20-22, 2004, IIT Chennai, India

3. “Effect of Donor Dopant on the Structure and Electrical Properties of Barium Stannate Titanate”

Sindhu Singh, Prabhakar Singh, D. Kumar and Om Parkash

Conference on Mesogenic and Ferroic Materials (CMFM09) during Jan 9-11, 2009 at B.H.U.

4. “Dielectric property and structure correlation in Ba_{1-x}La_xTi_{1-x}Cr_xO₃”

R. K. Dwivedi, Surendra Baboo, **Sindhu Singh**, Ravi Kumar, V.K. Kabra, D. Kumar and Om Parkash

Conference on Mesogenic and Ferroic Materials (CMFM09) during Jan 9-11, 2009 at B.H.U.

5. “Effect of Calcium Substitution on Dielectric Behavior of BaTi_{0.85}Sn_{0.15}O₃”

Sindhu Singh, Prabhakar Singh, Om Parkash and Devendra Kumar

International Conference on Materials for Advanced Technologies (ICMAT) & International Union of Materials Research Societies-International Conference in Asia 2009 (IUMRS-ICA) 2009) during 28 June-3 July at Suntec Singapore International Convention & Exhibition Centre

6. “Effect of La Doping on Dielectric Behavior of BaTi_{0.85}Sn_{0.15}O₃”

Sindhu Singh, Prabhakar Singh, Om Parkash and Devendra Kumar

International Conference on Multifunctional Materials during 7-9 December 2010 at Department of Physics Banaras Hindu University

7. Dielectric properties of La doped BaTi_{0.85}Sn_{0.15}O₃

Sindhu Singh, Om Parkash, Devendra Kumar, Prabhakar Singh

International Conference on Advanced Materials and Applications (ICAMA-2014) during 24th March to 26th March 2014

Centre of Materials Science, University of Allahabad, Allahabad

8. Women in Higher Education

Sindhu Singh

National seminar on Present Scenario of Higher Education in India: Prospects & Challenges during 19th-20th September 2015

Dr Ram Manohar Lohia Avadh University, Faizabad

9. Behavior of La Doped BaTi_{0.85}Sn_{0.15}O₃

Sindhu Singh¹, Om Parkash, Devendra Kumar, Prabhakar Singh

International Conference on Structure and Dynamics of Biomolecules, 27th -28th January, 2017 conducted by Physics Department, Gorakhpur University, Gorakhpur

10. Dielectric Behavior of Calcium Substituted BaTi_{0.85}Sn_{0.15}O₃,

Sindhu Singh

National Symposium on Multidimensional Aspects of Spectroscopy, NSMAS 2017 during 17th-18th November 2017 conducted by Physics Department, Gorakhpur University, Gorakhpur

11. Effect of Calcium Substitution on Dielectric Behavior of BaTi_{0.85}Sn_{0.15}O₃

Sindhu Singh

International Conference of International Academy of Physical Sciences during 13th to 15th April 2018 conducted by Faculty of Science, Dr.Ram Manohar Lohia Avadh University, Faizabad

12. Simulation of Optical Transmission System Using Fiber Bragg Grating (FBG) in Optical Fiber

Sindhu Singh, S.N.Shukla, Priyanka Sharma, Minakshi Singh, Shipra Singh, Shephali Yadav, Priti Yadav

International Conference of International Academy of Physical Sciences during 13th to 15th April 2018 conducted by Faculty of Science, Dr.Ram Manohar Lohia Avadh University, Faizabad

13. Dielectric Behavior of Co doped BaTi_{0.85}Sn_{0.15}O₃

Sindhu Singh

National Symposium on Advanced Material Science NSAMS-2018 during 7th -8th December 2018 conducted by Physics Department, Gorakhpur University, Gorakhpur

14. Analysis and Design of 10 Gbps Optical Transmission Link

Sindhu Singh, Minakshi Singh, Naresh Kumar Chaudhary

National Seminar on Recent Advances in Material Science and Electronics (Ramse-2019) during 27-28 February, 2019 conducted by Department of Physics and Electronics, Dr. Rammanohar Lohia Avadh University, Ayodhya

Workshop/Symposium Participated:

1. Short Training Courses on “L^AT_EX” held at Centre for Bioinformatics, School of Biotechnology, BHU during January 17 – 22, 2005

2. SERC School on “Condensed Matter and Materials Physics” held at School of Materials Science & Technology, I.T-B.H.U. during March 1-28, 2006.

3. Symposium on “Recent Developments in Nano – Materials” held at BHU during March 13-14, 2007.
4. Delivered a lecture in workshop “Operation and Maintenance of Electrical Furnaces” on 31st March, 2007 IT, B.H.U., Varanasi-221005
5. “International Workshop on Nanoceramics and Nanocomposites” held at IIT Kanpur during 8-9 September. 2007.
6. “National Conference on Nanomaterials and Nanotechnology” (NATCON NAMTECH 2007) held at University of Lucknow, during 08-10 Dec 2007.
7. “International Workshop on Multifunctional Materials” on 6th December 2010 at Department of Physics Banaras Hindu University
8. Short term training programme on “MATLAB FUNDAMENTALS & APPLICATIONS” during 13-15 July 2011 at School of Engineering, Gautam Buddha University, Greater Noida
9. “International Workshop on Brihaspati-3, E-learning System” during 20-21 October 2012 at Bora Institute of Management Sciences
10. National Workshop on “Recent Advances in materials Science” during 15-16 March, 2013 at Department of Physics, University of Lucknow

Orientation / Refresher / Short Term/FDP/ MOOC Courses

1. 86th Orientation Course at Academic Staff College, Deen Dayal Upadhyay Gorakhpur University, Gorakhpur from 14th March- 10th April 2012
2. Short term course on “Advances in materials Science and Engineering” during 15th – 21st July 2013 at Motilal Nehru National Institute of Technology, Allahabad
3. Refresher Course on “Information and Communication Technology” from 7th -27th November, 2013 conducted by UGC-Academic Staff College, University of Allahabad, Allahabad.
4. Refresher Course on “Information Technology” from 9th -31st December, 2016 conducted by UGC-Human Resource Development Centre, University of Lucknow, Lucknow.
5. Faculty Development Programme during 18th to 24th August 2018 at RRP College Amethi, U.P., India
6. MOOC course on “ET702x: Designing Learner-Centric MOOC” from 2nd August to 6th September 2018 conducted by IIT Bombay.
7. National Workshop on “Research Methodology” during 20th – 26th May, 2019 organized by IQAC Dr Rammanohar Lohia Avadh University, Ayodhya

8. Workshop on “MOOCs, E-content Development and Open Educational Resources” from 12th July to 18th July 2019 conducted by Centre for Professional Development in Higher Education, Human Resource Development Centre, University of Delhi, Delhi.
9. Refresher Course on “Physics & Astronomy” from February during 17 - 29, 2020 conducted by UGC-Human Resource Development Centre, (HRDC), University of Lucknow, Lucknow.

Online Seminar/FDP/Workshops

1. One day National Level online Seminar on Advances in Material Science organized by Department of Chemistry, Maharshi Dayanad College of Arts, Science and Commerce, Parel, Mumbai, held on 20th May 2020.
2. National Webinar Series on Experimental and Computational Tools for Materials Research (ECTMR 2020) organized by Discipline of Natural Sciences, PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur, and Department of Physics, Central University of Rajasthan during 01-08 June 2020.
3. International Webinar on Materials Synthesis and Characterization (IWMSC-2020) jointly organized by Department of Physics and Electronics, Dr. Rammanohar Lohia Avadh University, Ayodhya (U.P.) and Department of Natural Sciences, Florida Polytechnic University, Lakeland, Florida, USA during 11-13 July 2020.
4. IUAC acquaintance Programme & one day National Workshop on Accelerator Based Science Research organized by Department of Physics and Electronics, Dr. Rammanohar Lohia Avadh University, Ayodhya (U.P.) on 16 July 2020.
5. One week Faculty Development Program on ICT, Learning and E-content development organized by Internal Quality Assurance Cell & Placement & Soft Skill Development Cell. Dr. Rammanohar Lohia Avadh University, Ayodhya in association with IGNOU regional centre, Lucknow during 20-26 July 2020