Dr. (Mrs.) Priyanka



Dr. Priyanka

Designation: Assistant Professor (Contract)

Department of Physics

Chaudhary Devi Lal University

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Academic Qualifications

- **Ph.D. Physics** (2016), Guru Jambheshwar University Of Science And Technology, Hisar, India, Supervisor Dr. Ashish Agarwal, Professor, Department of Physics, Guru Jambheshwar University Of Science And Technology, Hisar, India
- M.Sc. Physics (2010), Department of Physics, Guru Jambheshwar University Of Science And Technology, Hisar, India
- B.Sc. Non-Medical (2008), F.C. College For Women, Hisar, India

Teaching Experiences (more than 5 years)

- Assistant Professor (Adhoc Faculty) Department of Physics, J.C.D. Memorial (PG) College, Sirsa, India (2016-2017).
- **Assistant Professor (Contract)** Department of Physics, Chaudhary Devi Lal University, Sirsa, India (2017-Present).

Teaching courses

- To M.Sc. Students-Mathematical Physics, Classical Mechanics, Solid State Physics, Materials Science, Environmental Physics
- To PhD students-Advances in Physics, Nano Science and Technology

Research Area

My Ph.D. research topic was 'Crystal Structure Dielectric and Magnetic Properties of Modified BiFeO₃ Ceramic'. Briefly, my work lays emphasis on the structural, electric and magnetic properties of BiFeO₃ ceramics modified with transition metal/rare earth ions at A and/or B sites. My research work revealed that the magnetic properties are found to be affected by the spin interaction between Sm³⁺ and Fe³⁺ or Fe²⁺ ions. Also, the enhanced saturation magnetization with Co addition is closely related to structural phase transition. At Chaudhary Devi Lal University, I am working on structural, electrical, optical and magnetic properties of some pure and doped multiferroic materials as well spinel ferrites.

Research Interests

Multiferroic materials, Rare earth and transition metal doped bismuth ferrite ceramics, Spinel ferrites

List of Publications

- a) Publication in International Journal
- 1) Godara P., Agarwal A.*, Ahlawat N., Sanghi S., Dahiya R. (2014) Crystal structure transformation, dielectric and magnetic properties of Ba and Co modified BiFeO₃ multiferroic. Journal of Alloys and Compounds 594:175-181 (IF-5.316).
- **2**) Dahiya R., Agarwal A.*, Sanghi S., Hooda A., **Godara P.** (**2014**) Structural, dielectric and magnetic properties of Sr and V modified BiFeO₃ multiferroic. **Journal of Magnetism and Magnetic Materials** 385:175-181 (IF-2.993).
- **3)** Godara P., Agarwal A.*, Ahlawat N., Sanghi S. (2015) Crystal structure refinement, dielectric and magnetic properties of Sm modified BiFeO₃ multiferroic. **Journal of Molecular Structure** 1097:207-213 (IF-3.196).
- **4)** Godara P., Agarwal A., Ahlawat N., Sanghi S. *, Kaswan K. (2015) Effect of doping of vanadium ions on crystal structure, dielectric and magnetic properties of Bi_{0.8}Ba_{0.2}FeO₃ multiferroic. **Journal of Magnetism and Magnetic Materials** 406:76-82 (IF-2.993).
- **5) Godara P.**, Agarwal A., Ahlawat A., Sanghi S. * (2018) Crystal structure, dielectric and magnetic properties of Gd doped BiFeO₃ multiferroics. **Physics B: Condensed Matter** 550:414-419 (IF-2.436).
 - b) Paper presented in International/National Conferences/FDP Participations

- 1) Godara P., Agarwal A., Ahlawat N., Sanghi S., Dielectric response of codoped BiFeO₃ ceramics, at National symposium on Materials and Processing (MAP-2012) held at BARC, Trombay, Mumbai, October 10 12, 2012.
- 2) Godara P., Agarwal A., Ahlawat N., Sanghi S., Structural transformation in Co-modified multiferroic Bi_{0.8}Ba_{0.2}FeO₃ ceramics, at National Conference on New Frontiers in Physics held at Dayanand Postgraduate College, Hisar, March 12 13, 2013.
- 3) Godara P., Agarwal A., Ahlawat N., Sanghi S., Study of structural and dielectric properties of BiFeO₃ ceramic doped with Ba and V, at National conference on physics of engineering materials (NCPEM-2013), Deenbandhu Chhotu Ram University Of Science And Technology, Murthal (Sonepat), March 15 17, 2013.
- 4) Godara P., Agarwal A., Ahlawat N., Sanghi S., Rani S., Rietveld refinement and dielectric studies of Bi_{0.8}Ba_{0.2}Fe_{0.95}V_{0.05}O₃ ceramic, at 58th DAE SSPS 2013, Thapar University, Paitala, December 17-21, **2013**.
- 5) Godara P., DST-SERC School on Advanced Functional Magnetic Materials held at Goa University, Goa, February 3-21, 2014.
- 6) Godara P., Agarwal A., Sanghi S., Ferroelectric investigations of A and B-site substituted BiFeO₃ ceramics, at International Conference on Recent innovations in Sciences, Management, Education and Technology, JCD Memorial College, Sirsa, August 27, 2016.
- 7) Godara P., Synthesis and Structure analysis of Mn-doped BiFeO₃ Ceramic, at 21st International Conference of International Academy of Physical Sciences (CONIAPS-XXI), GJU, Hisar, October 28, 2017.
- 8) Godara P., One week Faculty Development Program, E-Content Development, organized by GAD-TLC, S.G.T.B. Khalsa College, University of Delhi, July 27-31, 2020.
- 9) Godara P., One week Faculty Development Program, Development of Teacher's e-kit and MOOCs in Four Quadrant Format of e-content, organized by GAD-TLC, S.G.T.B. Khalsa College, University of Delhi, September 12-20, 2020.
- **10) Godara P.**, Agarwal A., Sanghi S., **Structural and impedance spectroscopic analysis of Co-doped BiFeO₃ Ceramic,** at TEQIP-III sponsored International Conference, Deenbandhu Chhotu Ram University Of Science And Technology, **Murthal (Sonepat)**, March 22 23, **2021**.
- 11) Godara P., Agarwal A., Sanghi S., Structural And Dielectric Behavior Study Of Bi_{0.8} Ba_{0.2}Fe_{0.95}Zn_{0.05}O₃ Multiferroic Ceramic, at Department of Physics, Chaudhary Devi Lal University, Sirsa, March 25 26, 2022.
- c) List of International/National Conferences/Workshops Attended
 - 1) Workshop on "Trends on Optical Coatings for Head-up Display and High Laser Damage Threshold" Department Of Applied Physics, Guru Jambheshwar University Of Science & Technology, Hisar. June 27, 2011.

- 2) Workshop on "Patent Awareness Vis-à-vis Intellectual Property Rights" IPR & TC Cell, Guru Jambheshwar University Of Science & Technology, Hisar. August 9, 2011.
- 3) Workshop on "Recent Analytical Developments in Applied Sciences" Central Instrumentation Laboratory, Deenbandhu Chhotu Ram University Of Science & Technology, Murthal (Sonipat). August 13-14, 2012.
- 4) International Conference on "Advances in Materials and Processing: Challenges and Opportunities (AMPCO 2012)" Department of Metallurgical and Materials Engineering, IIT Roorkee. November 2-4, 2012.
- 5) Workshop on "Intellectual Property Rights and Technology Commercialization" IPR & TC Cell, Guru Jambheshwar University Of Science & Technology, Hisar. March 18, 2013.
- 6) Workshop on "Emerging Trends in Quality Education: The Road Ahead" IQAC, Guru Jambheshwar University Of Science & Technology, Hisar. August 29-30, 2013.
- 7) National Conference on "Analytical Techniques and Their Applications" Dr. A. P. J. Abdul Kalam Central Instrumentation Laboratory, Guru Jambheshwar University Of Science & Technology, Hisar. March 16-17, 2017.
- 8) Two-Week Online Workshop on "Comprehensive e-Learning to e-Training guide for Administrative Work" TLC Ramanujan College, University of Delhi. May 25-June 05, 2020.

Skills

- Eloquent
- Thorough understanding of the subject
- Well skilled in communication and comprehension
- Able to identify and analyze students needs
- Well skilled in research software/tools