

Faculty Profile

Name : Dr. Sheela Devi
Designation : Assistant Professor
Qualifications : Ph.D (Delhi University D.U) M.Sc (Kurukshetra University) B.Sc
Phone : 9968493080
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Area of Interest/Specialization: **Nanoceramics, nanoferrites, Ferroelectrics Materials**

Experience : 10 years

Key Publications

1. Mekonnen Tefera Kebede, Venus Dillu, Sheela Devi, Sunil Chauhan
Crystal structure refinement and Magnetic properties of Sm³⁺ doped BiFeO₃ nanoparticles, *Journal of Materials Science: Materials in Electronics*, 31, 624 (2021) 413374. Impact factor 2.41 SCIE <https://doi.org/10.1016/j.physb.2020.11.008>
2. Synthesis and characterization of samarium substituted bismuth ferrites nanoparticles, Venus Dillu, Mekonnen Tefera Kebede, **Sheela Devi**, Sunil Chauhan, **Materials Today : Proceedings**, 34, 813-816 (2021) ISSN No. 2214-7853 Impact Factor 1.24 Scopus <http://dx.doi.org/10.1016/j.matpr.2020.05.348>
3. Prospective features of multiferroic tungsten bronze ceramics and its futuristic applications Shilpi Jindal, Ajay Vashisth, Sheela Devi, Kamal Kumar Kushwah, **Materials Today : Proceedings** <https://doi.org/10.1016/j.matpr.2021.07.351> In Press.
4. Phase transition and optical properties of samarium-doped BiFeO₃ Nanoparticles, Mekonnen Tefera Kebede, Venus Dillu, **Sheela Devi** & Sunil Chauhan, **Journal of Materials Science: Materials in Electronics**, 31, 9950–9960 (2020) ISSN 0957-4522, <https://doi.org/10.1007/s10854-020-04518-w>. Impact Factor 2.19
5. Investigation of structural, ferroelectric and magnetic properties of iron doped tungsten bronze multiferroic ceramics, Shilpi Jindal, Ajay Vashisth, **Sheela Devi**, Nupur Aggarwal, Kamal Kumar Kushwah, **Physica B: Physics of Condensed Matter**, 595 (2020) 412341. Impact Factor 1.9 ISSN: 0921- 4526 doi:10.1016/j.physb.2020.412341
6. Impact of copper substitution on the structural, ferroelectric and magnetic properties of Tungsten Bronze ceramics, Shilpi Jindal, **Sheela Devi**, Khalid Mujasam Batoo, Gagan Kumar, Ajay Vashisth **Physica B: Condensed Matter**, 537 (2018) 87–92 Impact Factor 1.9 ISSN No. 0921-4516 SCI <https://doi.org/10.1016/j.physb.2018.02.008>
7. Study of Structural and Dielectrical Properties of Lead Free Polycrystalline Electro CeramiBa₅CaTi₂Nb₈O₃₀ (BCTN) for Microwave Tunable Device Applications, Shilpi Jindal,



Sheela Devi, Ajay Vasishth, Gagan Kumar, **Materials Sciences and Applications**, 9 (2018) 55-67 ISSN Online: 2691-9478 Impact Factor 1.6 <https://doi.org/10.4236/msa.2018.910048>.

8. A review on tungsten bronze ferroelectric ceramics as electrically tunable devices Shilpi Jindal, Ajay Vasishth, Sheela Devi & Gagan Anand, **Integrated Ferroelectrics**, 186 (2018) 1-9, ISSN NO 1607-8489 Impact Factor 0.53, <https://doi.org/10.1080/10584587.2017.13693159>.

9. Interdependence between electrical and magnetic properties of polycrystalline cobalt substituted tungsten bronze multiferroic ceramics, Shilpi Jindal, Sheela Devi, Ajay Vasishth, Khalid Mujasam Badoo, Gagan Kumar **Journal of Advanced Dielectrics**, 8, No. 1 (2018) 1850002. ISSN No. 2010-1368. Impact Factor 0.87

10. Synthesis and characterization of polycrystalline Ba₅CaTi_{2-x}M_xNb₈O₃₀ (M=Cu) Tungsten Bronze Electro ceramics, Shilpi Jindal, Ajay Vasishth, **Sheela Devi**, Bikramjit Singh **Ferroelectric** 519 (2017) 9-14. Impact Factor 0.5 <https://doi.org/10.1080/00150193.2017.1362278>

11. Review on dielectric study of polycrystalline rare earth substituted Tungsten Bronze electro ceramics for high temperature applications, Shilpi Jindal, Ajay Vasishth, Sheela Devi **International Journal of Chem Tech Research**, 10 No.15 (2017) 135-145 ISSN: 0974-4290

12. Structural and Dielectric properties of Co substituted Multiferroic Ceramics Shilpi jindal, Ajay Vasishth, **Sheela Malik** Journal of basic and Applied Engineering Research (JBAER) 2, Issue 21 (2015) 1877-1879. ISSN: 2350-0077 Impact Factor

13. Effect of milling time on phase transition in BaTi_{0.995}W_{0.005}O₃ nanoceramics synthesized by high-energy ball milling, **Sheela Devi** and A. K. Jha, **International Journal of Modern Physics** 22 (2013) 140-147. ISSN NO. 2010-1945.

14. Enhancement of piezoelectric and ferroelectric properties in wolframium substituted barium titanate ferroelectric, **Sheela Devi** and A. K. Jha, **Indian Journal of Physics**, 86 (4) (2012) 279–282 ISSN No. 0973-1458 Impact Factor -1.7

15. Tungsten substituted barium titanate: Effect of heating rate on microstructural, dielectric and ferroelectric properties **Sheela Devi** and A. K. Jha, **Current Applied Physics**, 11 (2011) S95-S99. ISSN No. 1567-1739, Impact factor-2.2

16. Microstructural and electrical characterization of W substituted barium strontium titanate ferroelectric ceramics, A.K. Jha and **Sheela Devi**, **Ferroelectrics**, 420 (2011) 1-9, ISSN: 1563-5112 Impact Factor- 0.8

17. Investigations of Nanocrystalline Ferroelectric Barium Titanate Synthesized by High-Energy Ball Milling, **Sheela Devi** and A. K. Jha, **AIP Conference Proceedings**, 1372 (2011) 147--52 organization American Institute of Physics. ISSN NO. 1551-7616. Impact factor 0.40.

18. Structural, dielectric and ferroelectric properties of tungsten substituted barium strontium titanate **Sheela Devi** and A. K. Jha, **Ferroelectrics**, 402,1 (2010) 168-74 ISSN No. 0015-0193 **Impact Factor- 0.8**

19. Dielectric and Complex Impedance Studies of $\text{BaTi}_{0.85}\text{W}_{0.15}\text{O}_{3+\delta}$ Ferroelectric Ceramics **Sheela Devi** and A. K. Jha **Bulletin of Materials Science** 33, 6(2010) 683-690. ISSN No. 0250-4704 **Impact Factor-1.39**

20. Effect of W Substitution on Structural, Dielectric and Electrical Properties of BaTiO_3 Ferroelectric Ceramics **Sheela Devi**, Prasun Ganguly, Sameer Jain, and A.K. Jha, **Ferroelectrics** 381(120-129) 2009 ISSN No. 0015-0193 Impact factor-0.56

21. Phase transitions and electrical characteristics of tungsten substituted barium titanate **Sheela Devi** and A.K. Jha, **Physica B: Condensed Matter** 404 (2009) 4290–4294, ISSN No. 0921-4526 Impact Factor- 1.9

22. Dielectric and Pyroelectric studies of Tungsten – Bronze Structured $\text{Ba}_5\text{SmTi}_3\text{Nb}_7\text{O}_{30}$ Ferroelectric Ceramics, Prasun Ganguly, **Sheela Devi**, A. K. Jha and K. L. Deori **Ferroelectrics** 381 (2009)111-119 ISSN No. 0015-0193, **Impact factor- 0.56**

23. Structural, Dielectric and Ferroelectric Studies of Molybdenum Substituted $\text{Sr}_2\text{Bi}_2\text{Nb}_2\text{O}_9$ Ferroelectric Ceramics, Sameer Jain, Prasun Ganguly, **Sheela Devi** and A. K. Jha **Ferroelectrics** 381(2009)152-159 ISSN No. 0015-0193 Impact Factor- 0.8

24. Structural, Dielectric and Ferroelectric Properties of Tungsten Substituted Barium Titanate Ceramics, **Sheela Devi** and A. K. Jha, **Asian Journal of Chemistry** 21, No.10(2009)S117-124. ISSN No. 0970-7077 Impact Factor 0.31

25. Effect of Sintering Temperature on Dielectric Properties of Tungsten Doped Barium Titanate, **Sheela Devi**, Sameer Jain and A. K. Jha **Proc. Of IEEE**, Vol. 1, pp 13-17, 2008. (doi: 10.1109/ISAF.2008.4693887) Impact Factor 0.12 ISSN No. 2375-0448

Papers presented in Conferences

1. International Conference 4
2. National Conference 12

Awards and Recognitions

1. Best Poster Presentation award in national Conference.
2. Visited Xian Xiatong University, China, 2009, Funded by DST
3. Visited Jeju National University, ICC Jeju, Korea, 2013, Funded by DST
4. Participated and was awarded in Zonal Debate competition.
5. Participated and was awarded State level Yoga competition Award

Patent/Copyright

- 1.
- 2.

Sponsored Project/Consultancy

- 1.
- 2.

Book Chapter/Books published

1. Electrical characterization of electro-ceramics, **Materials: Properties, Characterization and Applications, Publisher:** CRC Press Taylor & Francis is listed in Clarivate Analytics (Web-of-Science) master booklist/Scopus, Inspec, Psyc INFO, Compendex, (Under Publication). ISBN 9780367490768, 2021, Taylor & Francis

Ph.D Supervised

I am supervising the doctoral work of the following students:

1. Shilpi Jindal (Ph.D. 2018)
2. Mekonnen Tefera Kebede (Thesis written)
3. Mikanshi choudhary (enrolled at present)
4. Srishti Choudhary (enrolled at present)

Invited Talk

Effect of Size on physical, dielectric and Electrical properties of ferroelectric materials: A approach from Bulk to Nanoceramics, International Conference on Energy and Environmental Materials (INCEEM-2021), Sharda University, India.

Memberships of Professional bodies

1. Life Membership of **MRSI** (MaterialsResearch Society of India) Membership No. **LMB 2189 (2013)**
2. Life Membership of **EMSI** (Electron Microscopy Society of India) Membership No. **LM909 (2013)**
3. Life Membership of **Indian Association of Physics Teachers (IAPT),**

Other Contributions