Faculty Profile

DR. SHIDALING MATTEPPANAVAR

ASSISTANT PROFESSOR

AWARDED CENTRE FOR EXCELLENCE IN SCIENCE FROM VGST

Office: Department of Physics, KLES's, Basavaprabhu Kore Arts Science and Commerce College Chikodi 591201 Karnataka, India.
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Professional Experience

KLES's, Basavaprabhu Kore Arts Science and Commerce College Chikodi — **10th June, 2019 to till date**
Designation: Assistant Professor

- Teaching to the under graduate students
- Structure and physical properties of Low dimensional (spin-chain) compounds
- Theory of Relativity and Free electron theory of Metals
- Superconductivity in mixed oxide materials

New Chemistry Unit, JNCASR, Bangalore — **3rd May, 2018 to June 2019**
Designation: Research Associate

- Nanostructuring of chalcogenides for thermoelectric applications
- Mechanical properties of Thermoelectric materials
- Electronic band structure and Phonon engineering

Laboratory of Crystallography, University of Bayreuth Germany — **3rd Aug., 2017 to 30 Nov 2017**
Designation: Postdoctoral Researcher

- Investigation on Ag and Ni based chalcogenides
- Preparation of single crystals and understand the structure using *JANA*

Tata Institute of Fundamental Research Mumbai — **2nd Jan., 2017 to 9th Jan., 2018**
Designation: Postdoctoral Researcher

- Preparation of single crystals and study the transport properties
- Understand the superconductivity at ultralow temperature

MRC, Indian Institute of Science, Bangalore — **1st Jan., 2014 to 14th Oct., 2014**
Designation: Jr. Research Assistant

- Synthesis and study the Pb based multiferroics for Mossbauer spectroscopy
- Synthesis of hex ferrite nano particles

UGC DAE CSR Mumbai Center BARC Mumbai. — **3rd April., 2011 to 30th Jun., 2014**
Designation: JRF and SRF

- Synthesis and studies of spin lattice coupling and magnetoelectric coupling in some *$Pb(Fe_{0.5}Nb_{0.5})O_3$ based multiferroics*

Ph.D., Thesis

Supervisor: Dr Basavaraj Angadi and (Sudhindra Rayaprol)

Title: ***Synthesis and studies on some $Pb(Fe_{0.5}Nb_{0.5})O_3$ based multiferroics***

Experimental/Technical Skills

- ***Single crystal and Materials Synthesis:*** Chemical Vapour Transport / Bridgeman / Flux method / Solid State Reaction Route / Sealed tube method / Arc Melting / Spark Plasma sintering / Mechanical alloying / Combustion synthesis
- ***Materials Processing:*** Spark Plasma Sintering / Liquid Phase compaction / Mictrostructural Engineering / High Energy Ball Milling
- ***Structural Properties:*** *Spin lattice / magnetoelastic and magnetoelectric coupling in multiferroic perovskite/single crystals*
- ***Electrical Properties:*** *Skills to fabricate home-made apparatuses / Dielectrics / ferroelectrics /* LT and HT Resistivity measurement / HT Seebeck coefficient measurement / LT and HT Hall Measurement
- ***Thermal Properties:*** *TGA / DTA / DSC /* Themal Diffusivity by Laser Flash Method / High Temperature Thermal Conductivity apparatus
- ***Magnetic Properties:*** Vibrating Sample Magnetometer (VSM) and Neutron diffraction
- ***Structural, Microstructural and Compositional Analysis:*** Expert in powder x ray diffrcation through *Rietveld refinment* and single crystal structure solution with *JANA* refinment technique / Raman Spectroscopy / FTIR / UV-NIR / TEM / SEM EDAX

Academic Background

Degree	Specialization	Organization	Division	Period	Awarded
Ph.D.,	Multiferroics	Department of Physics Bangalore University, Bangalore, Karnataka	-	2013-2016	Feb, 2017
M.Sc.,	Physics	Karanatak University, Dharwad, Karnataka	1st Class	2008-2010	Sep, 2010
B.Sc.,	Physics	Karanatak University, Dharwad, Karnataka	1st Class	2005-2008	July, 2008

Teaching Experience

Sl No	Institution	Level of the course
1	KLE S. Nijalingappa, College	M.Sc (Postgraduate)

Awards

- Awarded **Centre for excellence in science Engineering and Medicine** - sum amount of 50 Lakh rupees of grants from Vision Group of Science and Technology (VGST) Department of Science and Technology (DST) Government of Karnataka.
- JRF and SRF by UGC DAE CSR Mumbai Centre (Project fellow).
- Best Oral award (1st place) at "Research scholars workshop on Physics of Materials 2013", held at the UGC DAE CSR, Indore, INDIA, during 23-24th Dec 2013.
- Best Poster award (1st place) at "International Conference Magnetic materials and its applications (ICMAGMA 2014)", held at the Pondicherry University Pondicherry, INDIA, during 15 – 17 Sep 2014.
- Best Poster award (1st place) at "59th DAE solid state physics symposium (DAE SSPS 2014)", held at the Vellore Institute of Technology, Vellore, INDIA, during 16 – 20 Dec 2014.
- Best Poster award (3rd place) at "International Conference on Condensed Matter and Applied Physics (ICC - 2015)", held at Veterinary College Bikaner, Rajasthan, INDIA, during 30 – 31 Oct 2015.

Project Sanctioned: 54,95,000/- rupees

Sl No	Title of Research Proposal	Amount Sanctioned	Funding Agency
1	Simultaneous Effects of THERMOELECTRICS "Waste Heat to Electrical Energy Conversion" and MULTIFERROICS for "Memory Storage Application	50 Lakh (25 Lakh Received)	Vision Group on Science and Technology
2	Popularisation of Science at Rural High schools	30,000/- (Sanctioned)	Karnataka Science and Technology Academy Bangalore
3	Investigation of Pesticides in Under Ground Water of Belagavi District by Electrochemical Method	25,000/- (Sanctioned)	Karnataka Science and Technology Academy Bangalore
4	Synthesis and Studies on Spin Lattice, Spin Phonon and Magnetoelectric Coupling in High - Temperature Thermoelectric $PrFeO_3$ and $NdFeO_3$	240000/- (45000/- Received)	UGC DAE CSR Mumbai Center BARC Mumbai India

Peer-reviewed Publications

- ***Total publications: 85;*** *Citations:* ***1052*** *(on 03-03-2022), H- Index:* ***20****, I-10 Index****: 34*** *(Source: Google Scholar citations)*

1. Impedance and modulus studies of Pb(Fe0.5Nb0.5)O3–Pb(Co0.33Nb0.67)O3 solid solutions, T.Nagaraja, Shidaling Matteppanavar, I.Shivaraja, SudhindraRayaprol, BasavarajAngadi, Journal of Alloys and Compounds, 869, 159312, (2021).
2. Neutron Diffraction Magnetic and Mossbauer Spectroscopic Studies of Pb0.8Bi0.2Fe0.728W0.264O3 and Pb0.7Bi0.3Fe0.762W0.231O3 Ceramics, I. Shivaraja, Shidaling Matteppanavar, P. S. R. Krishna, Sudhindra Rayaprol, P. D. Babu, V. Jagadeesha Angadi, S. P. Kubrin & Basavaraj Angadi, Journal of Superconductivity and Novel Magnetism (2021).
3. Evidence of Weak Ferromagnetism, Space Charge Polarization, and Metal to Insulator Transition in Dy-Doped CaMnO3, Ravi Bharamagoudar, V. Jagadeesha Angadi, I. Shivaraja, Basavaraj Angadi, Rajib Mondal, Anil S. Patil, Sunil Patil, Vinayak Pattar, S. Raghu & Shidaling Matteppanavar, Journal of Superconductivity and Novel Magnetism (2021).
4. Temperature-Dependent Dielectric and Magnetic Properties of Scandium-Substituted HoFeO3 Nanoparticles, V. Jagadeesha Angadi, K. Manjunatha, Mustafa Akyol, Ahmet Ekicibil, Shidaling Matteppanavar, A. V. Pavlenko & S. P. Kubrin, Journal of Superconductivity and Novel Magnetism volume 33, pages3525–3534(2020).
5. Synthesis and study of structural, dielectric properties of Co0.95Bi0.05Cr2O4 nanoparticles, K. Manjunatha, V. Jagadeesha Angadi), K. M. Srinivasamurthy, and Shidaling Matteppanavar, AIP Conference Proceedings 2274, 020004 (2020).
6. Weak ferromagnetism and magnetoelectric coupling through the spin–lattice coupling in (1−x)Pb(Fe2/3W1/3)O3–(x)BiFeO3 (x = 0.1 and 0.4) solid solution, Shivaraja I, Shidaling Matteppanavar, P S R Krishna, Sudhindra Rayaprol, P D Babu, Jagadeesha Angadi V, S P Kubrin and Basavaraj Angadi, J. Phys.: Condens. Matter 32 425805 (2020).
7. I.C. Sathisha, K. Manjunatha, V. Jagadeesha Angadi, B. Chethan, Y.T. Ravikiran, Vinayaka K. Pattar, S.O. Manjunatha and *Shidaling Matteppanavar*, DOI: 10.5772/intechopen.90880.
8. Structural, electronic, vibrational and magnetic properties of Zn^{2+} substituted $MnCr_2O_4$ nanoparticles, K. Manjunatha, V. Jagadeesha Angadi, Renan A. P. Ribeiro, Elson Longo, Marisa C. Oliveira, Mauricio R. D.

BomiodSergio R. de Lázaroe, *Shidaling Matteppanavar*, S.Rayaprol. P.D.Babug, Mahaboob Pasha, Journal of Magnetism and Magnetic Materials, 502, 166595 (2020).

9. Exploring the Structural, Dielectric and Magnetic Properties of 5 Mol% Bi3+-Substituted CoCr2O4 Nanoparticles, K. Manjunatha, V. Jagadeesha Angadi, K. M. Srinivasamurthy, Shidaling Matteppanavar, Vinayak K. Pattar and U. Mahaboob Pasha, J Supercond Nov Magn (2020). https://doi.org/10.1007/s10948-019-05403-2
10. Second-order charge-density-wave transition in single crystals of $La_3Co_4Sn_{13}$, Johannes Welsch, Sitaram Ramakrishnan, Claudio Eisele, Natalija van Well, Andreas Schönleber, Sander van Smaalen, *Shidaling Matteppanavar*, Arumugam Thamizhavel, Martin Tolkiehn, Carsten Paulmann, and Srinivasan Ramakrishnan, Phys. Rev. Materials 3, 125003 (2019).
11. Ultralow Thermal Conductivity in Chain-like TlSe Due to Inherent Tl+ Rattling, Moinak Dutta, *Shidaling Matteppanavar*, Matukumilli V. D. Prasad, Juhi Pandey, Avinash Warankar, Pankaj Mandal Ajay Soni, Umesh V. Waghmare, Kanishka Biswas, J. Am. Chem. Soc. 2019, 141, 51, 20293-20299 (2019).
12. Effect of Dy on structural and low temperature magnetic properties of Ca0.7Dy0.3MnO3, Ravi Bharamagoudar, *Shidaling Matteppanavar*, Anil S Patil, Vinayak Pattar, Jagadeesha Angadi. V. K. Manjunatha, Chemical Data Collections, 24, 100288 (2019).
13. Effect of Pr3+-doping on the structural, elastic and magnetic properties of Mn–Zn ferrite nanoparticles prepared by solution combustion synthesis method, H. R. Lakshmiprasanna, V. Jagadeesha Angadi B. Rajesh, Babu, Mehaboob Pasha, K. Manjunatha, *Shidaling Matteppanavar*, Chemical Data Collections 24, 100273 (2019).
14. Investigation of space charge polarization behavior in $Pb_{0.9}Bi_{0.1}Fe_{0.7}W_{0.3}O_3$ ceramic, I. Shivaraja, *S. Matteppanavar*, S. K. Deshpande, S. Rayaprol, Basavaraj Angadi, Journal of Alloys and Compounds 800, 334-342 (2019).
15. Room temperature neutron diffraction, electron paramagnetic resonance and ferroelectric properties of relaxor ferroelectric $Pb(Fe_{0.6}Nb_{0.2}W_{0.2})O_3$, Shidaling Matteppanavar, Jagadeesha Angadi, T. Nagaraja, Sudhindra Rayaprol, and Basavaraj Angadi, AIP Conference Proceedings 2142, 090009 (2019).
16. Electrical behavior of Co0.5Ni0.5CexSmyFe2-(x+y)O4 ceramics probed by impedance spectroscopy analysis, Jagadeesha Angadi, Srinivasamurthy K. M., Shidaling Matteppanavar, Vinayak K. Pattar, and Rudraswamy B, AIP Conference Proceedings 2115, 030117 (2019).
17. Mechanism of high temperature induced phase transformation and magnetic properties of Mn_3O_4 crystallites, Lakshmi Narayani, V. Jagadeesha Angadi Anu Sukhdev Malathi Challa, Shidaling Matteppanavar, P. R. Deepthi, P. Mohan Kumar, Mehaboob Pasha, Journal of Magnetism and Magnetic Materials 476, 268-273 (2019).
18. Unusual magnetic behavior of crystalline $Ni_{0.89}V_{2.11}Se_4$ with site disorder, Sitaram Ramakrishnan, *Shidaling Matteppanavar*, Srinivasan Ramakrishnan, Sander van Smaalen (Under Review Physical Rev B).
19. Electrical Poling Induced Strain on Magnetism in $Pb(Fe_{0.534}W_{0.066}Nb_{0.4})O_3$, *Shidaling Matteppanavar*, Sudhindra Rayaprol, Sudip. Mukherjee, S. D. Kauhsik, Vasant Sathe, Basavaraj Angadi (Under Review Indian Journal of Physics).
20. Effect of Zn substitution on the structural and magnetic properties of nanocrystalline $NiFe_2O_4$ ferrites, M.K. Anupamaa , N. Srinatha, *Shidaling Matteppanavar*, Basavaraj Angadi, Balaram Sahoo, B. Rudraswamy, Ceramics International 44, 4946 – 4954, (2018).
21. Low temperature Neutron diffraction and magnetic studies on the magneto-electric multiferroic $Pb(Fe_{0.534}Nb_{0.4}W_{0.066})O_3$, *Shidaling Matteppanavar*, Sudhindra Rayaprol and Basavaraj Angadi, J Mater Sci 52, 10709 – 10717 (2017).
22. Impedance spectroscopy studies on $PbFe_{0.5}Nb_{0.5}O_3$ –$BiFeO_3$ multiferroic solid solution, Sunanda T. Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, S.K. Deshpande, M.V. Murugendrapp, Basavaraj Angadi, Ceramics International 43, 16684–16692 (2017).

23. Structural dielectric and conductivity studies of $PbFe_{0.5}Nb_{0.5}O_3$ –$BiFeO_3$ multiferroic solid solution, Sunanda T Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Murugendrappa M V, Basavaraj Angadi J Alloys and Compound, 724, 787 – 798, (2017).
24. Low temperature Mossbauer spectroscopic studies on Sm3+ doped Zn-Mn ferrites, V. Jagadeesha Angadi, S.P. Kubrin, D. A. Sarychev, *Shidaling Matteppanavar*, B. Rudraswamy, Hsiang-Lin Liu, K. Praveena, Journal of Magnetism and Magnetic Materials,441, 348 – 355, (2017).
25. Evidence for Room-Temperature Weak Ferromagnetic and Ferroelectric Ordering in Magnetoelectric $Pb(Fe_{0.634}W_{0.266}Nb_{0.1})O_3$ Ceramic, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, Balaram Sahoo, J Supercond Nov Magn, 30, 1317 – 1325 (2017).
26. Structural, electrical and magnetic properties of Sc3+ doped Mn-Zn ferrite nanoparticles, V. Jagdeesha Angadi, Leema Choudhury, K. Sadhana, Hsiang-Lin Liu, R. Sandhya, *Shidaling Matteppanavar*, B. Rudraswamy, Vinayak Pattar, R.V. Anavekar, K. Praveena, Journal of Magnetism and Magnetic Materials, 424, 1–11 , (2017).
27. Effect of pH on electrical and magnetic properties of $Al_3Fe_5O_{12}$ nanoparticles K. Praveena, *Shidaling Matteppanavar*, Hsiang-Lin Liu, K. Sadhana, J Mater Sci: Mater Electron DOI 10.1007/s10854-016-6038-4 (2017).
28. Effect of sintering temperature on the structural, dielectric and magnetic properties of $Ni_{0.4}Zn_{0.2}Mn_{0.4}Fe_2O_4$ potential for radar absorbing, Journal of Magnetism and Magnetic Materials, K. Praveena, K. Sadhana, *Shidaling Matteppanavar*, Hsiang-Lin Liu, 423, 343–352, (2017).
29. Dose dependent modifications in structural and magnetic properties of γ-irradiated nanocrystalline $Mn_{0.5}Zn_{0.5}Fe_2O_4$ ceramics, V. Jagadeesha Angadi, A.V. Anupama, R. Kumar, H.M. Somashekarappa, *Shidaling Matteppanavar*, B. Rudraswamy, B. Sahoo, Ceramics International, 43, 1, 523–526, (2017).
30. Low temperature Mössbauer spectroscopic studies on Sm^{3+} doped Zn-Mn ferrites, V Jagadeesha Angadi, S P Kubrin, D A Sarychev, *Shidaling Matteppanavar*, B Rudraswamy, Hsiang-Lin Liu, K Praveena, Journal of Magnetism and Magnetic Materials, 441, 348-355, (2017).
31. Composition dependent structural and morphological modifications in nanocrystalline Mn-Zn ferrites induced by high energy g-irradiation, V.J. Angadi, A.V. Anupama, R. Kumar, H. K. Choudhary, *Shidaling Matteppanavar*, H. M. Somashekarappa , B. Rudraswamy , B. Sahoo, Materials Chemistry and Physics 199, 313 – 321, (2017).
32. Evidence for Room-Temperature Weak Ferromagnetic and Ferroelectric Ordering in Magnetoelectric $Pb(Fe_{0.634}W_{0.266}Nb_{0.1})O_3$ Ceramic, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, Balaram Sahoo, J Supercond Nov Magn, 30, 1317 – 1325, (2017).
33. Effect of Sintering Temperature and Duration on the Formation of Single-Phase $Pb_{0.9}Bi_{0.1}Fe_{0.55}Nb_{0.45}O_3$ Solid Solution, Sunanda T Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Murugendrappa M V, Basavaraj Angadi Trans. Ind. Ceram. Soc., 75, 3, 1-4 (2016).
34. Composition Dependent Room Temperature Structure, Electric and Magnetic Properties in Magnetoelectric $Pb(Fe_{1/2}Nb_{1/2})O_3$ - $Pb(Fe_{2/3}W_{1/3})O_3$ Solid-solutions, *Shidaling Matteppanavar*, Sudhindra Rayaprol, Basavaraj Angadi, Balaram Sahoo, Journal of Alloys and Compounds, 677, 25, 27-37, (2016).
35. Effect of Sm^{3+} substitution on structural and magnetic investigation of nano sized Mn–Sm–Zn ferrites, Jagdeesha Angadi. V, B. Rudraswamy, E, Melgiriyappa, *Shidaling Matteppanavar*, Indian Journal of Physics, 90, 8, 881–885 (2016).
36. Effect of Zn^{2+} substituted on Structural and Magnetic Properties of Manganese Ferrite Synthesized via Combustion Route, Jagadeesha Angadi. V, Rudraswamy. B, *Shidaling Matteppanavar*, Basavaraj Angadi, K.Praveena, Advance Science Letters Advanced Science Letters, 22, 4, 790-796, (2016).
37. Investigation of structural, Mossbauer and ferroelectric properties of (1-x) $PbFe_{0.5}Nb_{0.5}O_3$ – (x) $BiFeO_3$ Solid Solution, Sunanda T Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, Balaram Sahoo, Journal of Magnetism and Magnetic Materials, 15, 122-127 (2016).

38. Observation of enhanced magnetic pinning in Sm^{3+} substituted nanocrystalline Mn Zn ferrites prepared by propellant chemistry route, V. Jagadeesha Angadi, A.V. Anupama, R. Kumar, *Shidaling Matteppanavar*, B. Rudraswamy, B. Sahoo, Journal of Alloys and Compounds, 682, 263–274, (2016).
39. Evidence for Magneto-electric and Spin-lattice Coupling in $PbFe_{0.5}Nb_{0.5}O_3$ through Structural and Magneto-electric Studies, *Shidaling Matteppanavar*, Sudhindra Rayaprol, Kiran Singh, V. Raghavendra Reddy, Basavaraj Angadi, Journal of Material Science 50, 4980 - 4993, (2015).
40. Electric field-induced tuning of magnetism in $PbFe_{0.5}Nb_{0.5}O_3$ at room temperature, S. Rayaprol, S. Mukherjee, S. D. Kaushik, *Shidaling Matteppanavar*, B. Angadi, Journal of Applied Physics 118, 054103, (2015).
41. On the room temperature ferromagnetic and ferroelectric properties of $Pb(Fe_{1/2}Nb_{1/2})O_3$ *Shidaling Matteppanavar*, Sudhindra Rayaprol, Anupama A.V, B. Sahoo, Basavaraj Angadi, Journal of Superconductivity and Novel Magnetism 28, 8, 2465 – 2472 (2015).
42. Origin of room temperature weak-ferromagnetism in antiferromagnetic $Pb(Fe_{2/3}W_{1/3})O_3$ Ceramic, *Shidaling Matteppanavar*, Sudhindra Rayaprol, Anupama A.V, B. Sahoo, Basavaraj Angadi, Ceramics International, 28, 8, 2465 – 2472, (2015).
43. Observation of phase transformations in cement during hydration, H.K. Choudhary, Anupama A.V, R. Kumar, M. E. Panzi, *Shidaling Matteppanavar*, B. N. Sherikar, B. Sahoo, Construction and Building Materials 101,122 – 129, (2015).
44. Low temperature magnetic studies in $PbFe_{0.5}Nb_{0.5}O_3$ multiferroic, *Shidaling Matteppanavar*, Basavaraj Angadi, Sudhindra Rayaprol Physica B; condensed matter 48, 229 – 232 (2014).
45. Size control and magnetic property trends in cobalt ferrite nanoparticles synthesized using an aqueous chemical route Praveena Kuruva, *Shidaling Matteppanavar*, Srinath. S, and Tiju Thomas, Journal of IEEE Transactions of Magnetism 50, 1, (2014).
46. Structural and magnetic properties of nanocrystalline $BaFe_{12}O_{19}$ synthesized by microwave hydrothermal method. K. Sadhana, K. Praveena, *Shidaling Matteppanavar*, B. Angadi, Journal of Applied Nano Sci letters 2, 247 – 252, (2012).
47. Single Phase synthesis and Room Temperature Neutron Diffraction Studies on Multiferroic $PbFe_{0.5}Nb_{0.5}O_3$, *Shidaling Matteppanavar*, Basavaraj Angadi, Sudhindra Rayaprol, AIP Conf. Proc. 1512, 1232 (2013).
48. Neutron Diffraction Studies on Chemical and Magnetic Structure of Multiferroic $PbFe_{0.67}W_{0.33}O_3$ *Shidaling Matteppanavar*, Basavaraj Angadi, Sudhindra Rayaprol, AIP Conf. Proc.1591, 1669, (2014).
49. Neutron diffraction, Mössbauer effect and Electron Paramagnetic Resonance studies on multiferroic $Pb(Fe_{2/3}W_{1/3})O_3$ *Shidaling Matteppanavar*, Sudhindra Rayaprol, Anupama A.V, B.Sahoo, Basavaraj Angadi, AIP Conf. Proc.1665, 140012 (2015).
50. Magnetic properties of nanocrystalline $Mn_{1-x}Zn_xFe_2O_4$, Jagadeesha Angadi. V, B. Rudraswamy, *Shidaling Matteppanavar*, P. Bharathi, and K. Praveena, AIP Conf. Proc. 1665, 050014 (2015).
51. Low Temperature Dielectric and Conductivity Relaxation Studies on Magnetoelectric $Pb(Fe_{2/3}W_{1/3})O_3$, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, AIP Conf. Proc. 1728, 020108 (2016).
52. Low Temperature Dielectric and Impedance Studies on Magnetoelectric $PbFe_{0.5}Nb_{0.5}O_3$ Ceramic, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, AIP Conf. Proc. 1728, 020658 (2016).
53. Neutron Diffraction, Mössbauer and Ferroelectric Studies on Magnetoelectric $Pb_{0.9}Bi_{0.1}Fe_{0.55}Nb_{0.45}O_3$, Sunanda T Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, Basavaraj Angadi, AIP Conf. Proc. 1728, 020109 (2016).
54. Room Temperature Neutron Diffraction and Magnetic Studies of Multiferroic $Pb_{0.9}Bi_{0.1}Fe_{0.55}Nb_{0.45}O_3$ Solid Solution, S T Dadami, *Shidaling Matteppanavar*, Shivaraja I, S Rayaprol, S. K. Deshpande, B Angadi, AIP Conference Proceedings 1731, 140023 (2016).

55. Structural, Magnetic and Dielectric Studies of $Pb_{0.9}Bi_{0.1}Fe_{0.55}Nb_{0.45}O_3$ Multiferroic Solid solution, S T Dadami, *Shidaling Matteppanavar*, I Shivaraja, S Rayaprol, B Angadi, IOP Conf. Series: Materials Science and Engineering 149, 012163 (2016).
56. Structural and dielectric behavior of Cr^{3+} and Gd^{3+} substituted Ni-Zn nano ferrites, Anupama M. K., Jagadeesha Angadi V., *Shidaling Matteppanavar*, Vinayak Pattar, Rudraswamy B, AIP Conf. Proc. 1728, 020512 (2016).
57. Neutron diffraction, Mössbauer and electron paramagnetic resonance studies of $Pb_{0.8}Bi_{0.2}Fe_{0.6}Nb_{0.4}O_3$ multiferroic, Sunanda T. Dadami, *Shidaling Matteppanavar*, Shivaraja I., Sudhindra Rayaprol, Basavaraj Angadi, AIP Conf. Proc. 1832, 140004 (2017).
58. Effect of Sc3+ on structural and magnetic properties of Mn-Zn nano ferrites, Jagadeesha Angadi V. *Shidaling Matteppanavar*, Srinatha N., E. Melagiriyappa and B. Rudraswamy, AIP Conf. Proc. 1731, 050047 (2016).
59. Breaking of ferrimagnetic ordering in Sc^{3+} doped Mn-Zn ferrites due to high energy Gamma irradiation, Jagadeesha Angadi V., *Shidaling Matteppanavar*, Raju B. Katti, B. Rudraswamy, and K. Praveena, AIP Conf. Proc. 1832, 130040 (2017).
60. Low Temperature Dielectric and Impedance Spectroscopy Studies of 0.9PFN - 0.1BFO Multiferroic Solid Solution, Sunanda T Dadami, *Shidaling Matteppanavar*, Shivaraja I, Sudhindra Rayaprol, S. K. Deshpande, Basavaraj Angadi, Materials Today: Proceedings, 5,10722–10727, (2018).
61. Low carrier semiconductor like behaviour in $Lu_3Ir_4Ge_{13}$ single crystal, Anil Kumar, *Shidaling Matteppanavar*, A. Thamizhavel, S. Ramakrishnan, AIP Conference Proceedings **1942**, 130060 (2018).
62. An unusual metallic behavior in a Ag4SSe single crystal, *Shidaling Matteppanavar*, NHA Bui, S van Smaalen, A Thamizhavel, S. Ramakrishnan, AIP Conference Proceedings, 1942 (1), 130001 (2018).

List of Papers presented in International and National Conferences - more than 30

Research Interests

- Investigation on Thermoelectric materials and devices for electric power generation (Single crystals, *Oxides, Intermetallics, Chalcogenides, and Half-Heusler alloys*)
- Design and fabrication of low and high temperature electrical and thermal transport property measurement systems
- Fabrications of single-leg and uni-and multi-couple thermoelectric devices
- Physics behind sintering techniques and Microstructure Engineering
- Multiferroics
- Magnetic Refrigeration (Magneto caloric and Electro caloric effect)
- Thin film based Gas Sensors
- Polymer/Supercapacitors
- Magnetic Nanoparticles for Biomedical Applications
- Magnetic Nanoparticles for Water puriefier

Place: Chikodi

Date : 11/05/2022 **(SHIDALING MATTEPPANAVAR)**