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**DESIGNATION** : Guest Lecturer  
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**EDUCATIONAL QUALIFICATION** : PhD (Physics)  
**AREA OF INTEREST** : Material science  
**SPECIALISATION** : Magnetism, Multiferroic  
**TEACHING EXPERIENCE :**

Designation	Institution	Period (Academic Year)
Guest Lecturer	SN College, Punalur	9 months (2015-2016)
Guest Lecturer	St. John's College, Anchal	7 months (2022-2023)
Guest Lecturer	SN College, Punalur	From Sept 2023 (2023-2024)

**ADMINISTRATIVE POSITIONS HELD: NIL**

**UGC MAJOR/ MINOR PROJECT: NIL**

## **PUBLICATIONS**

### **Peer-Reviewed Journal Articles**

**2023-** V.S. Veena, **Ramany Revathy**, Nandakumar Kalarikkal, M. Manjula Devi, and S. Sagar, Room temperature magnetoelectric coupling in single-phase double perovskite Ba<sub>2</sub>FeVO<sub>6</sub>, J. Mater. Sci: Mater Electron 34, 1966 (2023),

DOI: <https://doi.org/10.1007/s10854-023-11295-9>

**2023-** V.S. Veena, **Ramany Revathy**, Anoop Ajaya Kumar Nair, M.T. Rahul, Nandakumar Kalarikkal, M. Manjula Devi, Anitha Anand, R.K. Veena, and S. Sagar, Room temperature magnetoelectric effect in Sr<sub>2</sub>FeNbO<sub>6</sub> perovskite: A theory supported experimental investigation, J. Solid State Chem., 327, 124286,

DOI: <https://doi.org/10.1016/j.jssc.2023.124286>

**2023-** Anit Joseph, Aneesh Ayyappan, Thoufееq Subair, Manikanta Pandibayal, Swapna Nair, **Revathy Ramany**, Manoj Raama Varma, Senoy Thomas, Pure and Sm doped CeO<sub>2</sub> nanoparticles: An insight into the room temperature ferromagnetism and photocatalytic dye degradation, ChemistrySelect, 8, e202301020,

DOI: <https://doi.org/10.1002/slct.202301020>

**2023-** Chinnu V. Devan, Anoop A. Nair, **Ramany Revathy**, Biswapriya Deb, Manoj Raama Varma, Exotic magnetic properties in zintl phase BaVSe<sub>3</sub>: A theoretically supported experimental investigation, New J. Chem., 47, 97-108, DOI: <https://doi.org/10.1039/D2NJ04129D>

**2021- Ramany Revathy**, Anoop A Nair, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Magnetism of cobalt during oxidative ageing: A theory supported experimental investigation, Mater. Sci. Eng. B, 273, 115453,

DOI: <https://doi.org/10.1016/j.mseb.2021.115453>

**2021-Ramany Revathy**, Nandakumar Kalarikkal, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Exotic magnetic properties and enhanced magnetoelectric coupling in Fe<sub>3</sub>O<sub>4</sub>-BaTiO<sub>3</sub> heterostructures, J. Alloys Compd., 889, 161667,

DOI: <https://doi.org/10.1016/j.jallcom.2021.161667>

**2021- Ramany Revathy**, Nandakumar Kalarikkal, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Exchange-spring mechanism and Griffiths-like phase in room-temperature magnetoelectric Ni-BaTiO<sub>3</sub> composites, Mater. Adv., 2, 4702

DOI: <https://doi.org/10.1039/d1ma00264c>

**2021-Ramany Revathy**, Rahul Mundiyaniyil Thankachan, Nandakumar Kalarikkal, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Sea urchin-like Ni encapsulated with BaTiO<sub>3</sub> to form multiferroic core-shell structures for room temperature magnetoelectric sensors, J. Alloys Compd., 881, 160579,

DOI: <https://doi.org/10.1016/j.jallcom.2021.160579>

**2020- Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Observation of cluster glass and Griffiths-like phase in Fe<sub>3</sub>O<sub>4</sub> nanostructures, Phys. Status Solidi B, 2000341,

DOI: <https://doi.org/10.1002/pssb.202000341>

**2020- Ramany Revathy**, Aswathi Kaipamangalath, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, BaTiO<sub>3</sub> nanoparticle-decorated hierarchical Ni nanowire assemblies for magnetoelectric applications, New J. Chem., 44, 3690

DOI: <https://doi.org/10.1039/c9nj05532k>

**2020- Ramany Revathy**, Aswathi Kaipamangalath, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Synthesis and characterization of Ni-BaTiO<sub>3</sub>-PDMS composite for flexible magnetoelectric applications, AIP Conference Proceedings 2220, 110036

DOI: <https://doi.org/10.1063/5.0001765>

**2019- Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, Effect of morphology and ageing on the magnetic properties of nickel nanowires, Mater. Res. Bull., 120, 110576,

DOI: <https://doi.org/10.1016/j.materresbull.2019.110576>

**2019-** Kaipamangalath Aswathi, Jasnamol Pezhumkattil Palakkal, **Ramany Revathy**, Manoj Raama Varma, Sign reversal of magnetization in Sm<sub>2</sub>CrMnO<sub>6</sub> perovskites, J. Magn. Magn. Mater. 483, 89–94,

DOI: <https://doi.org/10.1016/j.jmmm.2019.03.094>

**2018-** Bhagya Uthaman, **Revathy R**, Rojerce Brown Job, Manoj Raama Varma, Structural, dielectric and impedance spectroscopy studies in Co-doped La<sub>0.7</sub>Te<sub>0.3</sub>MnO<sub>3</sub>, AIP Conference Proceedings, 05003,

DOI: <https://doi.org/10.1063/1.5032686>

**2017- Ramany Revathy**, X-Ray diffraction in nanostructured materials, International journal of advances in computer and electronics engineering (IJACEE), vol 2, issue 4, pp 30-35, ISSN: 2456 – 3935

### **Book Chapters**

**2023- Ramany Revathy**, Manoj Raama Varma, Kuzhichalil Peethambharan Surendran, Ferromagnetic Ni Nanostructures via Chemical Reduction Methods, Materials Research Foundations, 143, 140-169,

DOI: <https://doi.org/10.21741/9781644902335-5>

## GRANTS AND FELLOWSHIPS

**2012-** Post-graduate Indira Gandhi scholarship for single girl child

**2015 -** KSCSTE Research Fellowship in Physical Science by the Kerala State Council for Science, Technology and Environment (KSCSTE), Government of Kerala.

**2020-** Best Oral Presentation Prize from Journal of Materials Chemistry A, RSC, Cambridge, UK

**2020-** Best Poster Presentation Prize, E-Poster

**2021-** Best Oral Presentation Prize

## PAPERS PRESENTED IN CONFERENCES

### Contributory Talks:

1. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Enhanced room temperature magnetoelectric response in  $\text{Fe}_3\text{O}_4\text{-BaTiO}_3$  multiferroic systems” at the Recent Advances in Physics of Materials (RAPM-2021) at CSIR-NIIST, during December 9-10 (2021) (*Best Oral Presentation Prize*)
2. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “One Dimensional  $\text{Ni@BaTiO}_3$  for Room Temperature Magnetoelectric Applications” at the 14th International Conference on Eco-Materials (ICEM-14) at CSIR-NIIST, during February 5-7 (2020) (*Best Oral Presentation Prize from Journal of Materials Chemistry A, RSC, Cambridge, UK*)
3. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Multiferroic core-shell heterostructures of  $\text{Ni@BaTiO}_3$  with 1-3 connectivity” at the International Conference on Recent Advances in Materials Science (ICRAMS 2020) at Mahatma Gandhi College, Thiruvananthapuram, during January 22, 23 (2020)
4. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Hierarchical Ni Nanowire Decorated with  $\text{BaTiO}_3$  Nanoparticles for Magnetoelectric Applications” at the Third International Conference on Advanced Functional Materials (ICAFM-2019) at CSIR-NIIST, during December 09, 10 (2019)
5. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Morphology Controlled synthesis of Nickel Nanowires” at the National Conference on

Emerging trends in science, technology & Application of electron microscope (STAEM-2018) at CSIR-NIIST, during December 19-21 (2018)

**Poster Presentation:**

1. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “One Dimensional Ni@BaTiO<sub>3</sub> for Room Temperature Magnetoelectric Applications” at the 14th International Conference on Eco-Materials (ICEM-14) at CSIR-NIIST, during February 5-7 (2020)
2. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “One Dimensional Core-Shell Ni@BaTiO<sub>3</sub> for Room Temperature Magnetoelectric Applications”, E-Poster competition conducted by the Post Graduate and Research Department of Physics, Nesamony Memorial Christian College, Marthandam, 2020. (**E-Poster: First prize**)
3. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Morphology dependant magnetic properties of hierarchical nickel nanostructures” at the International conference NMD-ATM 2019, Hotel Udaya Samudra, Trivandrum, during November 13-16 (2019)
4. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Synthesis and characterization of Ni-BaTiO<sub>3</sub>-PDMS composite for flexible magnetoelectric applications” at the 3rd International Conference on Condensed Matter & Applied Physics at Department of Physics, Govt. Engineering College, Bikaner, during October 14-15, (2019)
5. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Tailoring the morphology and characterization of nickel nanostructures” at First Indian Materials Conclave & 30th Annual General Meeting of MRSI, held at J N Tata Auditorium, IISc. Bangalore during February 12-15, (2019)
6. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, participated in the 31st Kerala Science Congress held at Fatima Mata National College, Kollam during January 2-3 (2019)
7. **Ramany Revathy**, Manoj Raama Varma, and Kuzhichalil Peethambharan Surendran, “Morphology Control of Nickel Nanostructures Synthesized via Template Free Wet Chemical Route” at the National Conference on Critical and Strategic Materials for Advanced Technologies (CSMAT 2017) at Hotel Tea County, Munnar, during March 9-11, (2017)