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Dept. of PG Physics
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Thejas Gopal Krishne Urs, M.Sc, PhD

Education

- 2007 – 2010 **BSc** (Physics, Mathematics and Computer Science)
NIE Science College, University of Mysore
- Jun 2010 – May 2012 **MSc**, Condensed Matter Physics
Davangere University, Davangere, Karnataka, India



PhD

- Jan 2015 – Sep 2018 **Mangalore University, Mangalagangothri, Mangalore, India**

Thesis

“Studies on Characterization of Polymer Composites and Analysis of the Data with different Mathematical Models”

Research Experience

- Nov 2014 – March 2019 **Senior Project Fellow**
University of Mysore, Center for Materials Science
Mysore, India
- Nov 2012 – Nov 2014 **Project Fellow**
University of Mysore, Department of Physics
Mysore, India

Publications

- Journal Articles* **24**
- Chapters in Book* **2**
- Books (Edited)* **1**
- Conference Proceedings* **5**

Awards & Grants

- Dec 2018 Award: 2018 IUCr Young Scientist award (AsCA 2018, Auckland)
- Dec 2016 Award: Karnataka State Eligibility Test for Lectureship (KSET)
- May 2014 Scholarship: Scientific Exchange Scholar, Department of Physics and Astronomy, Wayne State University, Detroit - USA

Skills & Activities

<i>Skills</i>	Material Characterization, X-ray Diffraction, Nanomaterials, Polymers, Polymeric Materials, Conducting Polymers, Nanoparticles, Polymer Composites, Fiber, Experimental Physics, Materials Science
<i>Languages</i>	English, Hindi, Kannada
<i>Scientific Memberships</i>	The Indian Science Congress Association, India - Life Member IUCr Associate. 2018 – 2021 (International Union for Crystallography)

Publications

Journal Articles

1. Thejas G. Urs, G. K. Gowtham, M. B. Nandaprakash, D. Mahadevaiah, Y. Sangappa, R. Somashekar, *Determination of force constant and refractive index of a semiconducting polymer composite using UV/visible spectroscopy: a new approach*. **2017**, 91(1) 53-56. **Impact Factor: 1.16**
2. Thejas Gopal Krishna Urs, Karthik Bharath, Sangappa Yallappa, Somashekar Rudrappa, *Functional data analysis techniques for the study of structural parameters in polymer composites*. Journal of Applied Crystallography **2016**, 49(2), 594-605. **Impact Factor: 3.42**
3. Thejas G Urs, Radhika V. Hurkadli, R.V. Basavaraj, M. Niranjana, A Manjunath, R. Somashekar, *Study of optical and conducting properties of FeCl₃ doped PVA polymers*. Progress in Crystal Growth and Characterization of Materials **2014**, 60(3-4), 87 - 93. **Impact Factor: 4.75**
4. H. T. Ananda, G.Thejas Urs, R. Somashekar: *Preparation and characterization of conductive PVA/Gly:Na₂SO₄ polymer composites*. Polymer Bulletin **2015**, 73(4), 1151-1165. **Impact Factor: 1.43**
5. S. R. Madhuri, N. S. Namitha, M. B. Kusuma Urs, G. K. Gowtham, Thejas G. Urs, R. Somashekar, *Modelling of X-ray patterns using Fourier transforms: application to nanomaterials*, Indian Journal of Physics, **2018**, Doi: 10.1007/s12648-018-1250-0. **Impact Factor: 1.16**
6. Dinesha V Hegde, Mahesha C. B, Gowtham G. K, Thejas G. Urs, Nandaprakash M. B, Mahadevaiah D & Somashekar R, *Studies on physical properties of wine palm and Roselle natural fibers*, Journal of Natural Fibers, **2018**, DOI: 10.1080/15440478.2018.1455619, **Impact Factor : 0.974**
7. K. Hemalatha, G. Thejas Urs, D. Mahadevaiah, H. Somashekarappa, K. Byrappa, R. Somashekar: *Effect of NiCuZnFe₂O₄ on the microcrystalline properties of PVA/CMC polymer blends*. Materials Research Innovations, **2017**, 21(2), 122-128. **Impact Factor : 0.85**
8. Mahadevaiah, G. Thejas Urs, K. Byrappa, R. Somashekar: *Effect of Microwave Irradiation on the Microstructural Properties of Bivoltine Silk Fibroin Films*. Procedia Engineering **2016**, 141, 53-58. **Impact Factor: 0.89**
9. G Thejas Urs, H T Ananda, Nanda Prakash, K Byrappa, R Somashekar: *Crystal and molecular structure of muga wild silk fibres based on [Ala-Gly] n sequence using LALS technique*. Indian Journal of Fibre and Textile Research **2015**, 40, 131-136. **Impact Factor: 0.43**
10. G Thejas Urs, Nanda Prakash, H T Ananda, R Somashekar: *Radial distribution function of natural fibres and synthetic water soluble polymers using X-ray diffraction*. Indian Journal of Fibre and Textile Research **2016**, 41(2), 9-12. **Impact Factor: 0.43**
11. Thejas G. Urs, Y. Sangappa, K. Byrappa, R. Somashekar: *Determination of crystallite shapes in polymer composites using X-ray diffraction results*. AIP Conference Proceedings, **2017**, 1832, 040012.
12. Thejas Urs G., Y. Sangappa, R. Somashekar: *Stochastic analysis of experimentally determined physical parameters of HPMC:NiCl₂ polymer composites*. AIP Conference Proceedings, **2016**, 1731, 040007.
13. K. Hemalatha, Mahadevaiah, G. K. Gowtham, G. Thejas Urs, H. Somashekarappa, R. Somashekar: *Microstructural and electrical properties of PVA/PVP polymer blend films doped with cupric sulphate*. AIP Conference Proceedings **2016**, 1731(1), 070007.
14. K. Hemalatha, Mahadevaiah, Thejas Urs G, H. Somashekarappa, R. Somashekar: *Spectroscopic analysis of PVA/CMC: NiCuZnFe₂O₄ polymer nanocomposites*. AIP Conference Proceedings **2015**, 1665, 070032.

15. H. T. Ananda, G. Thejas Urs and R. Somashekar, *Characterization and microstructure of HPMC/Gly: AgNO₃ polymer composites*, AIP Conference Proceedings, **2018**, 1942, 040002
16. Thejas Gopal Krishne Urs, Ananda H. T, Mahadevaiah, R. Somashekar: *Spectroscopic studies of PVA/Gly:Na₂SO₄ polymer composites*. AIP Conference Proceedings **2015**, 1665, 040026.
17. H Ananda, T Urs, Y Prakash, K Hemalatha, H Somashekarappa, R Somashekar: *Microstructures and Electrical Properties of HPMC/PVP Polymer Blend Films Complex with Ferric Chloride (FeCl₃)*. Material Science Research India **2014**, 11(2), 153-158.
18. M B Nanda Prakash, G Thejas Urs, H T Ananda, R Somashekar: *1-D Paracrystalline Model to Simulate a Bragg Reflection: Computation of Crystallite Size and Lattice Strain*. Crystal Structure Theory and Applications **2014**, 3(3), 48-55.
19. Thejas Gopal Krishne Urs, Mahadevaiah, Rudrappa Somashekar: *Studies on Structural and Conducting Properties of Goethite Nanoparticles Doped HPMC Polymer Films*. Journal of Polymers **2014**, 2014, 201464
20. M. B. Nanda Prakash, G. Thejas Urs, H. T. Anand, R. Somashekar: *Pair Correlation Studies of CdCl₂ Doped PVA Polymer Films Using X-ray Data*. AIP Conference Proceedings, **2014** 1591 (1), 816-818.
21. G. Thejas Urs, M. B. Nanda Prakash, H. T. Ananda, R. Somashekar: *Radial Distribution studies on water soluble polymers using XRD line profile data*. AIP Conference Proceedings, **2014** 1591 (1), 170-171
22. Mahadevaiah, Thejas Urs, T Demappa, R Somashekar: *Characterization of Zinc Nanoferrite Doped HPMC Polymers Using X-Ray Diffraction*. Journal of Nuclear Physics, Material Sciences, Radiation and Applications, **2014**, 1(2), 201-205.
23. Mahadevaiah, Thejas Urs, K Byrappa, R Somashekar: *Preparation and Characterization of Mulberry Silk Fibroin Films*. International Annals of advanced Scientific Research **2014** 1 (1), 001-007
24. H T Ananda, Thejas Urs G, M B Nanda Prakash, R Somashekar: *Characterization of HPMC/GLY: Na₂So₄ Polymer Composite Using X-Ray Technique*. Bull. Pure Appl. Sci. **2013** 32 (2), 165-173

Conference Proceedings

1. Thejas Urs G, Gowtham G K, H Somashekarappa and R Somashekar, *Structure-property relation in HPMC:CoCl₂ polymer composites using functional data analysis*, Acta Crystallographica Section A: Foundations and Advances, **2017**, 73 (a2), c939.
2. Gowtham G K, Thejas Urs G, Mahadevaiah D, K Byrappa, Somashekar R, *Imaging of crystallite shapes in various silk forms using PXRD*, Acta Crystallographica Section A: Foundations and Advances, **2017**, 73 (a2), c935.
3. Manju V V, Thejas Urs G, Divakara S and R Somashekar, *Imaging of crystalline regions in cotton fibers using powder XRD*, Acta Crystallographica Section A: Foundations and Advances, **2017** 73 (a2), C564.
4. M B Nanda Prakash, G Thejas Urs, H T Ananda, R Somashekar: *Variation of Crystallite Ellipsoids for Varieties of Cotton Fibers Using Whole Powder Pattern Fitting Technique*. Polycon 2014, Mysore; 04/2014.
5. Mahadevaiah, G Thejas Urs, K Byrappa, R Somashekar: *Microstructural Parameters of Bivoltine Silk Films using X-Ray Diffraction Studies*. Polycon 2015, Mysore; 04/2014.

Books (Edited)

Emergent Research on Polymeric and Composite Materials, R Somashekar and Thejas Urs G
2017, IGI Global Publications, USA

Book Chapters

1. Thejas Gopal Krishne Urs, R Somashekar: *Crystal Structure of Wild and Domestic Silk Fibres Using Linked-Atom Least-Squares Method*. Handbook of Sustainable Polymers: Structure and Chemistry, Edited by Vijay Kumar Thakur, Manju Kumari Thakur, 05/2016: pages 183. CRC Press.
2. Thejas Gopal Krishne Urs, R Somashekar: *Fibre Diffraction and Whole Powder Pattern Fitting in Polymers*. Emergent Research on Polymeric and Composite Materials, Edited by R Somashekar and Thejas Urs G, 09/2017: pages 1-37 IGI Global Publications, USA