



DEPARTMENT OF PHYSICS

RESEARCH PUBLICATIONS

**Dr.V.Mini**

**Research Articles Published**

1. Paper entitled “Dielectric Constant and Transport Mechanism of Percolated Polyaniline Nanoclay Composites” by Mini Vellakkat; Hundekal Devendrappa. Industrial Engineering and Chemistry Research, (2014), 53 (43), 16873–16882.
2. Paper entitled “Nano Structured Multifunctional Core/Shell Ternary Composite of Polyaniline/Chitosan-Cobalt Oxide: Synthesis, Electrical and Optical Properties” by Mini Vellakkat; Hundekal Devendrappa. Materials Chemistry and Physics, 170 (2016) 90-98.
3. Paper entitled “Chitosan Mediated Synthesis of Core/Double Shell Ternary Polyaniline/Chitosan/Cobalt Oxide nanocomposite-As High Energy Storage Electrode Material in Supercapacitors" by Mini Vellakkat; Hundekal Devendrappa, Material Research Express, 3(1) (2016) 015502.
4. Paper entitled “Electrical conductivity and supercapacitor properties of Polyaniline/Chitosan/Nickel Oxide Honeycomb Nanocomposite” by Mini. V; Devendrappa. H, J. Appl. Polym. Sci.134 (9) (2017), DOI: 10.1002/APP.44536
5. “Polyaniline/Nickel Oxide-a Core/Shell Structured Nanocomposite as Electrode Material in Supercapacitor Applications”, **Mini.V**, Devendrappa.H, Materials today: Proceedings 5 (2018) 23148-23155. (Elsevier Journal).

**Research Articles Published in International Conference proceedings:**

1. Paper entitled “Electrical Transport and Thermochromic Properties of Polyaniline/Chitosan/Co<sub>3</sub>O<sub>4</sub> Ternary Nano Composite” by Mini Vellakkat; Hundekal Devendrappa. AIP Conference Proceedings, (2015), 1665, 110004; doi: 10.1063/1.4918060.

2. Paper entitled “Polyaniline/Nickel Oxide –a Core/Shell Structured Nanocomposite as Electrode Material in Supercapacitor Applications” by Mini.V, Devendrappa.H, (**Accepted**), Elsevier journal. ICAER conference proceeding.
3. A paper entitled “Thermochromism and Fluorescence in Dyed PEO Films” in SOLID STATE PHYSICS: Proceedings of the 59th DAE SSP Symposium 2014 (AIP publication) 1665, 060003 (2015); doi.org/10.1063/1.4917838 Archana Kamath, Raghu S, Mini V, Sharanappa C, Devendrappa H\*
4. Studying the effect of KCl Addition on the Optical Properties and Morphology of the Solid Polymer Electrolyte film. in Int.J. Chem Tech Res.2014,6(6),pp 33213324. ISSN : 0974-4290 Sharanappa Chapi, Raghu S, Mini V, Archana K, Devendrappa H.
5. Conductivity and optical band gaps of polyethylene oxide doped with  $\text{Li}_2\text{SO}_4$  salt in “Solid State Physics (AIP conference proceeding) 1591, 1275 (2014); doi: 10.1063/1.4872928 Sharanappa C, S. Raghu, K. Subramanya, K. Archana, V. Mini & Devendrappa H.
6. The change in dielectric constant, AC conductivity and optical band gaps of polymer electrolyte film: Gamma irradiation S Raghu, K Subramanya, C Sharanappa, V Mini, K Archana, G Sanjeev, ... AIP Conference Proceedings 1591 (1), 1272-1274.

### **Dr.Chakradhar B**

#### **Research Articles Published**

1. “Synthesis, Spectral Characterization, and Antibacterial and Antifungal Studies of PANI/ $\text{V}_2\text{O}_5$  Nanocomposites”, **Chakradhar Sridhar B**, Nagesh Gunvanthrao Yernale, and M. V. N. Ambika Prasad , Hindawi Publishing Corporation,International Journal of Chemical Engineering,(2016)Article ID 3479248.
2. “Synthesis, characterization, Electrical and Sensor Behavior of PANI/ $\text{In}_2\text{O}_3$  Nano Composites”, **Chakradhar Sridhar B**, Sasikala M , Jakeer Husain , M.V.N, Pradeep and M.V.N. Ambika Prasad, Ferroelectrics, 506(2016) .
3. “Impedance and Dielectric Properties of PANI/ $\text{V}_2\text{O}_5$  Nano Composites”, **Chakradhar Sridhar B** and M.V.N. Ambika Prasad, Journal of Advanced Physics (Accepted)
4. “Studies on DC Conductivity and LPG Sensing Behavior of PANI/ $\text{V}_2\text{O}_5$  Nanocomposites”, **Chakradhar Sridhar B**, Jakeer Husain and M.V.N. Ambika Prasad; .IJAET, 7(2014) 532-543.
5. “Electrical and Sensor Behavior of Polyaniline /Neodymium Composites”, **Chakradhar Sridhar B**, Joshi Purushottam V, M V N Ambika Prasad,IJSR ,5(2016)1174.
6. “Synthesis,Characterization and DC Conductivity Studies on Polyaniline/ $\text{ZnO}$  Composites ”,G.K.Vinayak,**Chakradhar Sridhar B**, Jakeer Hussain and M. V. N. Ambika Prasad, **Ferroelectrics**, 486(2015) 106–113.
7. “Characterization and DC Conductivity of Novel  $\text{ZnO}$  Doped Polyvinyl Alcohol (PVA ) Nano-Composite Films Chivukula Srikanth , **B.Chakradhar Sridhar**, M. V. N. Ambika Prasad , and R. D. Mathad: Journal of Advanced Physics 5(2016) 1–5.
8. “Synthesis, Characterization and Dielectric Behaviour of Polyaniline/ $\text{In}_2\text{O}_3$  Composites”,

- G. K. Vinayak, **B. Chakradhar Sridhar**, Jakeer Hussain, and M. V. N. Ambika Prasad; Journal of Advanced Physics 5(2016) 1–5.
9. “Synthesis, Characterization and Electrical Properties of Polypyrrole-NiO Composites Syeda Seema, **B. Chakradhar Sridhar**, and M. V. N. Ambika Prasad, Journal of Advanced Physics, 5(2015)1–4.
  10. “Synthesis, Characterization, Electrical and Sensing Properties of Polyaniline/Zinc Oxide Nanocomposites Jakeer Husain, Aashis S. Roy, **B. Chakradhar Sridhar**, M. Sasikala, and M. V. N. Ambika Prasad, Journal of Advanced Physics, 4(2015) 1–7.
  11. Studies on Properties and Fabrication of Polyaniline/Zinc Ferrite Nanocomposites; Jakeer Husain, **B. Chakradhar Sridhar**, and M. V. N. Ambika Prasad, Journal of Advanced Physics, 4(2015)1–6.
  12. “Synthesis, Sensing and Magnetic Properties of Polyaniline/Nickel Oxide Nanocomposites, Jakeer Husain, **Chakradhar Sridhar B**, M.V.N.Ambika Prasad, IJAET, 7(2014)620-626.
  13. “Studies on Electrical and sensing properties of Polyaniline/Iron oxide ( $Y-Fe_2O_3$ ) Nanocomposites”, Jakeer Husain, **Chakradhar Sridhar B**, M.V.N.Ambika Prasad, IJERA, 4(2014)198-202.
  14. “Characterization and DC Conductivity of novel NiO doped Polyvinyl Alcohol (PVA) Nano-composite films”, Chivukula Srikanth, **Chakradhar Sridhar B**, B.M.Nagabhushana and R.D.Mathad, IJAIEM, 03(2014)200-208.
  15. “Characterization and DC Conductivity of Novel CuO doped Polyvinyl Alcohol (PVA) Nano-composite Films”, Chivukula Srikanth, **Chakradhar Sridhar B**, B.M.Nagabhushana and R.D.Mathad, IJERA, 4(2014)38-46.
  16. “DC conductivity Studies on Polyaniline/Copper Oxide Composite”, Jakeer Husain, **Chakradhar Sridhar B**, M.V.N.Ambika Prasad, IJARBAS, 1(2014).
  17. “Synthesis, Characterization and Transport Properties of PANI with CdO Composites, Manjula V T, Basavaraja Sannakki, MVN Ambika Prasad and **Chakradhar Sridhar**: International Journal of Science, Technology & Management, 04(2015).
  18. “AC Conductivity and dielectrical property of ZnO doped Polyaniline composite: Manjula V T, Sannakki Nagaraj, **Chakradhar Sridhar**, Sharanabasamma M Ambalagi, M V N Ambika Prasad and Basavaraja Sannakki; International Research Journal of Natural and Applied Sciences, 2( 2015).
  19. “Synthesis, Characterization and DC Conductivity Studies of  $NaCF_3SO_3$  -PEO Doped Polyaniline Complexes”, Joshi Purushottam V, **Chakradhar Sridhar B**, M. V. N. Ambika Prasad, S. Ramana Murthy, P. S. Naik, . Int. Journal of Engineering Research and Applications, 5(2015)129-133.
  20. “Dielectric and AC Conductivity Studies of  $NaCF_3SO_3$  - PEO Doped Polyaniline Complexes”, Joshi Purushottam V, **Chakradhar Sridhar B**, M V N Ambika Prasad, P S Naik, IJSR, 4( 2015)1618-1621.
  21. “Characterization and AC Conductivity of novel ZnO doped Polyvinyl Alcohol (PVA) Nano-composite films, Chivukula Srikanth, **B.Chakradhar Sridhar** and R. D. Mathad, IJCPS, 4(2015)78-88.

22. "Structural and Optical Properties of Polypyrrole/NiO Doped Nanocomposites", Hajeebaba K. Inamdar, B. Chakradhar Sridhar, M. Sasikal, M.V.N. Ambika Prasad, J. Nano.sci. Tech. - Volume 4 Issue 3 (2018) 400–401.
23. "Synthesis, Characterization and AC Conductivity Studies of Polyaniline/NiO Nanocomposites": Hajeebaba K Inamdar, B.Chakradhar Sridhar, Srikanth Chivukula, Vinayak G K, Manjunatha.B, M.Sasikal and M.V.N. Ambika Prasad, IJRIER, e- ISSN: 2456

**Research Projects:**

Sl.No	Name of the Faculty	Department	Title of the project/Proposal
1	<u>Dr.Chakradhar B</u>	Physics	"Transport and sensor properties of Conducting Polymer - Nanocomposites".

**Mrs.Roopa V**
**Research Papers Published in Peer Reviewed International Journals**

1. "Comparative Study of Erbium Doped KDP Single Crystals Grown by Different Techniques" **Roopa V., R.AnandaKumari, Mechanics, Materials Science & Engineering Journal**, April 2017, Vol. 9. ISSN 2412-5954, DOI 10.2412/mmse.84.25.878.
2. "Investigation of SR Method Grown <101> Directed Praseodymium doped KDP crystal and its Single Crystal XRD, LDT, Thermal, Mechanical, Etching, FTIR, SEM & TEM Analysis" **Roopa V., R.AnandaKumari, IOSR Journal of Applied Physics (IOSR-JAP)** e-ISSN: 2278-4861. Volume 9, Issue 3 Ver. III (May - June 2017), PP 32-39, DOI: 10.9790/4861-0903033239.
3. "Influence of Praseodymium on the Optical, Structural and Dielectric Properties of KDP Crystals Grown by Seed Rotation Technique" **Roopa V., R.AnandaKumari, International Journal of Advanced Research**, Vol.4, Issue 12, PP. 836-847, December, 2016, ISSN:2320-5407. DOI:10.21474/IJAR01/2465.
4. "Effect of Praseodymium on the Optical, Structural and Dielectric properties of <101> Directed KDP Crystals Grown by SR Method", **Roopa V., R.AnandaKumari, International Journal of Current Research**, Vol.8, Issue, 11, PP.42222-42229, November, 2016, ISSN 0975-833X.
5. "Influence of Erbium on the Optical, Structural and Dielectric properties of <101> Directed KDP Crystals Grown by SR Method" **Roopa V., R.AnandaKumari, Elixir Crystal Research**, 101 (2016), 43968-43973 43968, ISSN-2229-712X.
6. **Roopa.V** and Dr.R.AnandaKumari, "Growth and Characterization of Erbium doped KDP crystals grown by Seed Rotation technique" in **Archives of Applied Science Research**, 2016,8(9):37-48, ISSN 0975-508X.
7. **Roopa.V** "Dielectric, Mechanical properties and Raman Analysis of TGS-ADP Mixed crystals" **International Journal of ChemTech Research**, ISSN: 0974-4290,

- ISSN(Online):2455-9555, Vol.10 No.9, pp 506-513, 2017.
8. **Roopa.V** and AnandaKumari "Dielectric, Mechanical properties and Raman Analysis of TGS-KDP Mixed crystals", **Research Journal of Recent Sciences**, Vol. **6(8)**, 1-5, August (2017), ISSN 2277-2502.
  9. **Roopa.V** and R.MallikarjunaSetty, "Binary Phase Shift Keying Demodulation Using Digital Signal Processor", **International Journal of Electronics & Communication (IJEC)**, ISSN 2321-5984, Volume 2, Issue 9, pages 76-83, September 2014.
  10. **Roopa.V** and R.MallikarjunaSetty, "Design & Implementation of Binary Phase Shift Keying Demodulation through phase locked loop", **International Journal Of Engineering And Computer Science**, ISSN:2319-7242, Vol- 3 Issue -9 September, 2014 Page No. 8123-8128
  11. **Roopa.V** and R.MallikarjunaSetty, "Binary Phase Shift Keying Demodulation & its Simulation on MATLAB", **International Journal of scientific research and management (IJSRM)**, ISSN (e): 2321-3418, Volume-2, Issue-9, Pages-1333-1337, September 2014.
  12. **Roopa.V**, "Environmental Monitoring through Wireless Sensor Networks", **International Journal Of Scientific Research And Education**, Volume-2 Issue- 7, Pages 1381-1395, July-2014, ISSN (e): 2321-7545.
  13. **Roopa.V**, "Remote Sensing & its applications in Disaster Management like Earthquake and Tsunamis", **International Journal of Science and Research (IJSR)**, ISSN (Online): 2319-7064, Volume 3 Issue 6, June 2014, Pages 1710-1715.
  14. **Roopa V.**, "Remote Sensing and its Applications in Disaster Management", **Everyman's Science**, ISSN 0531-495 X, Volume. XLIX No.2, June-July 2014, Pages 105-110.
  15. **Roopa.V** and Dr.R.AnandaKumari, "Optical and SHG studies of TGS-KDP Mixed Crystals" in **International Journal for Research & Development in Technology**, Volume-6, Issue-2 (Sep-16) ISSN (O) : 2349-3585.
  16. **Roopa.V** and Dr.R.AnandaKumari, " Growth and Characterization of Triglycine Sulphate (TGS) Crystal mixed with Ammonium Dihydrogen Orthophosphate (ADP) " **International Journal for Research in Applied Science & Engineering Technology (IJRASET)**, Volume 4 Issue IX, September 2016, IC Value: 13.98 ISSN: 2321-9653.
  17. "Praseodymium doped KDP Single Crystal Grown by Different Techniques and its Optical, SHG and Dielectric Studies: A New NLO Crystal" **Roopa V.**, R.Ananda Kumari, *International Journal of ChemTech Research*, ISSN: 0974-4290, *11(02): 187-195, 2018*, DOI= <http://dx.doi.org/10.20902/IJCTR.2018.110223>.

#### **Paper Presentations in International/ National Conferences/Symposium/ Invited Talk**

1. "Growth and Characterization of Triglycine Sulphate (TGS) Crystal mixed with Potassium dihydrogen Orthophosphate (KDP)" at Second Indo-Canadian Symposium on Nano-Science and Technology (ICSNST-2016) Organized by NIE, Mysuru, held on Feb 18-19, 2016 and Published in Conference Proceedings (Poster Presentation).
2. "Optical and SHG Studies of TGS-ADP mixed crystals" at National Conference on Emerging Trends in Engineering Sciences and Management-2016 Organized by Shridevi Institute of Engineering and Technology, Tumkur, held on March 23-24, 2016 and published in

- Conference proceedings, ISBN-978-93-5265-438-3 (Oral Presentation).
3. "Comparative study of Erbium doped Single crystals grown by different techniques" in International conference on Materials Processing and Applications (ICMPA-2016), December 14-16,2016, organized by VIT University, Vellore (Oral Presentation).
  4. "Optical, SHG and Dielectric Properties of Praseodymium doped KDP Single crystals grown by different techniques" in International Seminar on Physics and Chemistry of Materials and Applications" (ISPCMA-2016, January 4-5, 2017, organized by SPMH Kalasala and Luminescence Society of India at Machilipatnam, Andhra Pradesh (Oral Presentation).
  5. "Innovative Methods of Teaching Physics" in UGC Sponsored 2 days National Conference on "Impact of Physics on Biological Sciences" Organized by SSCASCW, Tumkur, held on April 5-6, 2016 and published in conference proceedings, ISBN-978-93-5265-438-3 (Oral Presentation).
  6. "A Survey on Wireless sensor network and its applications" in UGC Sponsored National Conference on "Recent Trends in Computer Science" Organized by University College of Science, TU, Tumkur, held on Oct 8th 2015 published in conference proceedings, ISBN-978-93-82694-25-0 (Oral Presentation).
  7. "Remote sensing used for Biodiversity" in UGC Sponsored National Conference on "Conservation of Biodiversity in Deccan Plateau" Organized by University College of Science, TU, Tumkur, held on Oct 10th 2014 published in conference proceedings (Oral Presentation).
  8. "An emerging technology of OLED in Display devices" in UGC Sponsored National Conference on "Recent Trends in Electronics and its Applications" Organized by Govt. First Grade College, K.R.Pura, B'lore, held on 14-15th march 2014, published in conference proceedings, ISBN-978-93-81437-98-8 (Oral Presentation).
  9. "e-waste management" in UGC Sponsored 2 days National Conference on "Perspectives of Physics in Reducing Environmental Pollution" Organized by KFGSC, Tiptur, held on 21-22 Feb 2014, published in conference proceedings (Oral Presentation).
  10. "Satellite communication" at UGC Sponsored 2 days state level Seminar on "Digital Communication" Organized by SSCASCW, Tumkur held on 30-31 Aug 2013, published in conference proceedings (Oral Presentation).
  11. "Mobile Communication" in National Conference on "Recent Trends in Communication Technology" Organized by Karnataka state Higher education council, B'lore, held on 13 Jan 2012, published in conference proceedings (Oral Presentation).
  12. Invited Lecture for I BCA on "Digital Electronics" Organized by Vidyavahini First grade college, Tumkur.

**Books Published**

1. "**Text Book of Digital Electronics**" for I Sem BCA by Roopa V, ISBN: 978-93-81821-20-6, First Edition 2014.
2. "**Text Book of Electronics**" for IV Sem BSc by Roopa V, ISBN: 978-93-5174-289-0, First Edition 2014.
3. "**Electronic Communications**" by Roopa V, ISBN: 978-93-5265-879-4, First Edition 2016.