

STAFF PROFILE

- 1) Name : Dr. R. Amutha
- 2) Designation : Assistant Professor
- 3) Department : Physics
- 4) Qualification : M.Sc., Ph.D
- 5) Experience : 13 Years 4 Months
- 6) Area of Specialization (s) : Thin Film Technology
- 7) E-mail : amutha.phd@gmail.com
- 8) Research Publications

International

1. **R.Amutha**, A.Subbarayan and R.Sathayamoorthy, “Influence of substrate temperature on structure and optical properties of ZnTe thin films”, **Crystal Research and Technology**, (2006), **41(12)**, 1174-1179.
2. **R.Amutha**, A.Subbarayan and R.Sathayamoorthy, “Structural properties of evaporated ZnTe thin films”, **Acta Ciencia Indica**, (2006), **32(1-4)**, 445-450.
3. **R.Amutha**, A.Subbarayan, R.Sathyamoorthy, K.Natarajan, P.J.Sebastian and S.Velumani, “Conduction mechanism in thermally evaporated ZnTe thin films”, **Journal of New Materials for Electrochemical System**, (2007), **10 (1)**, 27-32.
4. **R.Amutha**, “Effect of copper on composition, structural and optical properties of copper

9) Book Publications

Title of the Book : Engineering Physics - II

ISBN No : 978-81-907757-1-7

Author : R. Amutha

Publisher : Pranav Publication

10) Presentations in Conference

International

1. Optical studies on copper layered ZnTe thin films, **R.Amutha**, T.R. Suresh Kumar, accepted for Second International Conference on Perspectives in Vibrational Spectroscopy), February 24-28, 2008, Mascot Hotel, Trivandrum, Kerala.
2. FTIR Studies on Diseased Renal and Normal Blood Samples, **R.Amutha**, T.R. Suresh Kumar, accepted for Second International Conference on Perspectives in Vibrational Spectroscopy, February 24-28, 2008, Mascot Hotel, Trivandrum, Kerala.
3. Influence of copper on structure and transport properties of ZnTe thin films, **R.Amutha**, T.R. Suresh Kumar, accepted for Second International Conference on Perspectives in Vibrational Spectroscopy, February 24-28, Mascot Hotel, Trivandrum, Kerala.
4. Formation and characterization of copper layered ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathayamoorthy, Third International Conference on Ionic Devices, December 7-9, 2006, Anna University, Chennai, India.
5. Influence of substrate temperature on structure and optical properties of ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, International conference on perspectives in Vibrational Spectroscopy, Feb. 25-28, 2006, Meerut College, Meerut.
6. Structural properties of evaporated ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, International conference on perspectives in Vibrational Spectroscopy, Feb. 25-28, 2006, Meerut College, Meerut.
7. Structural and optical characterization of ZnTe thin films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, International symposium on functional materials (ISFM 2005), Dec.6-8, 2005, Kuala Lumpur, Malaysia.
8. Structural and DC conduction studies on ZnTe thin films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy, K.Natarajan, P.J.Sebastian and S.Velumani, XIV International Materials Research Congress, August 21 – 25, 2005, Cancun, Mexico.
9. Conduction mechanism in thermally evaporated ZnTe thin films, **R.Amutha**, A.Subbarayan, R.Sathayamoorthy, K.Natarajan, P.J.Sebastian and S.Velumani, International symposium on solar-hydrogen-fuel cells-8 (International materials research congress 2004) 22-26, Cancun. Mexico.

10. Temperature dependence of structure and optical studies on vacuum evaporated ZnTe thin films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, International symposium on Solar Cells & Solar Energy Materials, Cancun, Mexico, 22-26 August 2004.
11. Structural, Optical and Conduction Studies of ZnTe thin Films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, Symposium VII Materials characterization Techniques and Nanotechnology, Mexico, August 26-30, 2003.

National

1. Influence of thickness, substrate temperature and copper on optical studies of ZnTe thin films, T.R. Suresh Kumar, and **R. Amutha**, National Conference on the Emerging Trends in the Photovoltaic Energy Generation and Utilization, March 27-29, 2008, Indian Institute of Technology, Kanpur.
2. Optical properties of thermally evaporated copper layered ZnTe thin films, **R.Amutha**, T.R. Suresh Kumar, National conference on advanced materials, devices and technologies, February 22-28, 2008, Department of Physics, Sri Venkateswara University, Tirupati.
3. Formation and characterization of thermally evaporated ZnTe/CdSe heterojunction diode, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, National Seminar on Optoelectronic Phenomena, 10-12 August 2007, St.Aloysius College, Edathua, Alappuzha.
4. Electrical resistivity of thermally evaporated copper layered ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, National Conference on Smart Materials and Recent Technologies, Feb. 22-23, 2007, Department of Physics, Sri Venkateswara University, Tirupati.
5. Structural and optical characterization of silver layered ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, National Conference on Smart Materials and Recent Technologies, Feb. 22-23, 2007, Department of Physics, Sri Venkateswara University, Tirupati.
6. Structural and optical characterization of Pure and Copper doped ZnTe thin films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, National Conference on Subtle World of Physics (SWOP 2006), 9th Feb. 2006, Department of Physics, Vivekanandha College of Arts and Sciences for Women, Tiruchengode.
7. Conduction Mechanism in Thermally Evaporated ZnTe Thin Films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, National Conference on Emerging Materials and Technologies, Department of Physics, Sri Venkateswara University, Tirupati. 3-4, Aug. 2004.

8. Thickness Dependence of Structural and Optical Studies on Thermally Evaporated ZnTe thin Films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K. Natarajan, Materials for the Future, Bangalore March 22&23rd, 2004.
 9. Temperature dependence of Structural and A.C. conduction studies of vacuum evaporated ZnTe thin films S. Saravanakumar, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K. Natarajan, National Seminar on Emerging Trends in Molecular Physics, Annamalai University, Chidambaram, March 8&9th, 2004.
 10. Characterization of vacuum deposited ZnTe thin films by XRD, SEM and D.C. Conduction **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K. Natarajan, National Seminar on Emerging Trends in Molecular Physics, Annamalai University, Chidambaram, March 8&9th, 2004.
 11. Dielectric Studies of Vacuum Deposited ZnTe Thin Films, **R.Amutha**, A.Subbarayan and R.Sathyamoorthy, Eleventh National convention of Electrochemists, Bishop Heber college, Tiruchirappalli, Dec. 26&27th, 2003.
 12. Structural and DC conduction studies of dip coated hydrazinium benzoate thin films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, National conference on Recent advances in materials science, Tiruchirappalli, 11-12, Dec. 2002.
 13. Structural and optical studies of solution grown hydrazinium benzoate thin films, **R.Amutha**, A.Subbarayan, R.Sathyamoorthy and K.Natarajan, National seminar on Recent Trends in Optoelectronic materials and devices, Tirupati, 21-22 Nov.2002.
- 11) Participation in Conference
- 1) International conference on molecular spectroscopy of advanced materials and biomolecules, 7-9, August,2012, Bishop Moore college Mavelikara, **Kerala**.
 - 2) Second International conference on perspectives in vibrational spectroscopy, February 24-28, 2008, organized by Department of Physics, Mar Ivanios College, University of Kerala and Kerala State Council for Science, Technology and Environment, Trivandrum, **Kerala**.
 - 3) National conference on recent advances in vibrational spectroscopy, January 29-30, 2007, organized by Department of Physics, Periyar University, **Salem**.
 - 4) Third International conference on Ionic Devices, Dec. 7-9, 2006, organized by Society of Ionic Devices and Dept. of Physics and Anna University, **Chennai**.

- 5) International conference on perspectives in vibrational spectroscopy, Feb. 25-28, 2006, held in the Department of Physics, Meerut College, **Meerut**.
 - 6) National conference on Subtle World of Physics, 9th Feb. 2006 organized by Department of Physics, Vivekanandha College of Arts and Sciences for Women, **Tiruchengode**.
 - 7) National conference on emerging materials and technologies, 3rd & 4th, August 2004 at Department of Physics, Sri Venkateswara University, **Tirupati**.
 - 8) National conference on recent advances in materials science, Dec. 11-12, 2002, organized by PG & Research Department of Applied Physics, Nehru Memorial College, **Puthanampatti**.
 - 9) National conference on thin film techniques and applications, Feb. 1&2, 2002, Organized by department of Physics, PSG College of Arts & Science, **Coimbatore**.
- 12) Participation in Seminar
- 1) One day state level seminar on recent developments in advanced materials and its applications, August 12, 2011, organized by Department of physics, mahendra Engineering college, **Namakkal**.
 - 2) National symposium on acoustics, December 5-7, 2007, organized by KSR College of Technology & Acoustical Society of India, **Tiruchengode**.
 - 3) Materials for the Future, March 22&23, 2004, organized by Materials Research Centre, Indian Institute of Science, **Bangalore**.
 - 4) National seminar on emerging trends in molecular Physics, March 8&9, 2004, organized by Department of Physics, Annamalai University, **Annamalainagar**.
 - 5) Eleventh national convention of electrochemists, Dec. 26-27, 2003, organized by Central Electrochemical Research Institute Karaikudi and Bishop Heber College, **Tiruchirapalli**.
 - 6) National symposium on instrumentation, Dec. 2002, conducted by Department of Physics, Bharathiar University, **Coimbatore**.
 - 7) National seminar on recent trends in optoelectronic materials and devices, Nov. 21-22, 2002, organized by Department of Physics, Sri Venkateswara University, **Tirupati**.

13) Participation in Workshop

- 1) Innovative Eco-Systems, Incubation Centres and Start-ups for higher education institutions on March 19th, 2020, Organized by IQAC, Nirmala College for Women, Coimbatore – 18.
- 2) Revised Guidelines for the Accreditation Process of NACC in March 7th, 2020, Organized by IQAC, Nirmala College for Women, Coimbatore – 18.
- 3) Intellectual Property Rights, Patents and Copyrights on 02.02.2019, Organized by IQAC, Nirmala College for Women, Coimbatore – 18.
- 4) Outcome Based Education on 13.10.2018, organized by IQAC, Nirmala College for Women, Coimbatore – 18.
- 5) Outcome Based Education on June 22nd and 23rd, 2018, organized by IQAC, Nirmala College for Women, Coimbatore – 18.
- 6) Outcome Based Education on March 24th, 2018, organized by IQAC cell, Nirmala College for Women, Coimbatore – 18.
- 7) Multimedia on 21st and 22nd, 2018, organized by Department of Computer Science , Computer Applications and Information Technology, Nirmala College for Women, Coimbatore – 18.
- 8) Workshop on IOT on 24.02.2018, organized by Department of Computer Science , Computer Applications and Information Technology, Nirmala College for Women, Coimbatore – 18.
- 9) Preparation of E-Content – Design, Editing and Production on February 9th and 10th, 2016, Organized by Department of Zoology, Nirmala College for Women, Coimbatore – 18.
- 10) Analytical Instrumentation Techniques on 22.12.2015, organized by Department of Chemistry under the “DBT Star College Scheme”, Nirmala College for Women, Coimbatore – 18.
- 11) Two days National Level Workshop on NANO MATERIALS NANO MAT-2012 on September 28-29, 2012, Organized by Department of Mechanical Engineering, Selvam College of Technology, Namakkal.
- 12) Workshop on “Physics with Homemade Equipment and Innovative Experiments” (PHOENIX) held on October 10th, 2007, jointly organized by Inter University Accelerator Centre, New Delhi and Department of Physics, Kongunadu Arts and Science College, Coimbatore.

13) Workshop on “Advanced Engineering Materials”, February 14-15, 2007, organized by Department of Physics, Government College of Engineering, Salem.

14) State level workshop on “Science Research Methodology”, August 30-31, 2006, organized by School of Physical Science, Mahendra Arts and Science College, Kalippatti.

15) Human Resource Development Intervention – Facilitating Excellence in Effective Leadership Teacher, June 16-18, 2006 at Mahendra Engineering College, Tiruchengode.

16) Ph.D Teaching Programme on “Energy Loss of MeV Ions in Solids & Programming Techniques”, July 28th – Aug.18th, 2003, conducted by Nuclear Science Centre (NSC), New Delhi.

14) Participation in Orientation Programme/ Induction Programme/ Short term Courses

1. Orientation Programme, 10.05.2017 – 06.06.2017, UGC – Human Resource Development Centre, Bharathiar University, Coimbatore.

2. Refresher course in Physics, 22.01.2020 to 04.02.2020, UGC – Human Resource Development Centre, Bharathiar University, Coimbatore.

15) Participation in Faculty Development Programme

1. Innovative Teaching Strategies on 30.10.2019, organized by Curriculum Development Cell, Nirmala College for Women, Coimbatore – 18.

2. Environment Audit of Infrastructure, Extension Activity and Institutional Social Responsibility on 30.10.2015, organized by IQAC, Nirmala College for Women, Coimbatore – 18.

16) Conference/ Seminar/ Workshop Organized

1. National level Project contest “**Mathematics and Science Innovative Project Contest-09**” from 11th to 12th October 2009 at Mahendra College of Engineering, Salem.

2. National Seminar on “**Nano Material Science and Technology**” on 17th March 2008 at Mahendra College of Engineering, Salem.

17) Invited Speaker/ Session Chair – Conference/ Seminar/ Workshop

Two days National Level Workshop on NANO MATERIALS NANO MAT-2012 on September 28-29, 2012, Organized by Department of Mechanical Engineering, Selvam College of Technology, Namakkal.