

Faculty Profile



Dr. J. Thirupathy, M.Sc., M.Phil., Ph.D
Assistant Professor - Physics

HIGHLIGHTS:

- Number of Journal Publications: 27
- H-Index: 09
- Project Funding Received: Nil
- Patents Published: 13
- Patents Granted: 08

PROFESSIONAL LINKS:

- Scopus ID: 57202032898
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57202032898>
- Google Scholar ID: <https://scholar.google.co.in/citations?user=TPIIUEQAAAAJ&hl=en>
- Anna University Faculty ID:
- AICTE Faculty ID: 1-43396044808
- Anna University Supervisor ID: 4170008
- LinkedIn: <https://www.linkedin.com/in/dr-j-thirupathy-376497242/?originalSubdomain=in>

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 6 Years
- Industrial Experience: 3 Years

INTERNATIONAL EXPOSURE: Nil

AREA OF SPECIALIZATION:

- Crystal Growth
- Nanomaterials
- Spectroscopy
- Shock waves
- Microwave Processing
- Thermophysical Properties
- Instrumentation

Ph.Ds AWARDED WITH DETAILS:

S:No	Name of Scholar	Title of Thesis	Year of Completion	Full Time/Part Time
-	-	-	-	-

Ph.Ds GUIDING:

- **Full Time Scholars: Nil**
- **Part Time Scholars : Nil**

SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY:

1. Aksh OptiFibre Limited, Rajasthan – Consultancy: Rs. 96000/ (2021) – **Fund Received.**
2. UGC, Dr. D. S. Kothari research grant for newly recruited faculty members – Rs. 10 Lakhs (2022) – Not yet received.
2. UGC-DAE CSR, Application number - CRS/2023-24/1501 (2023) – Not yet received.
3. TNSCST Student Project Proposal Rs. 7500/- in the year of (2023) – **Fund Received.**
4. TNSCST (Science and Technology Project Scheme) (2024) - Rs.5 Lakhs – Submitted.
5. DST (Nano mission) (2024) - Rs.34 Lakhs – Submitted.
6. ANRF-ECRG, (2024), Rs.42 Lakhs – Submitted.
7. ANRF-IRG, (2024), Rs.52 Lakhs – Submitted.

PATENTS PUBLISHED/GRANTED:**PUBLISHED**

1. Title of invention : Design and development of extendable stand
(**Application no: 202141016304**) – 2021.
2. Title of invention : Apparatus for measuring thermal expansion of liquid with controlled evaporation (**Application no: 202241060832**) – 2022.
3. Title of invention : Device for measuring solid state thermal expansion using oriented FAST

- and rotated BRIEF algorithm (**Application no: 202341088485**) – 2023.
4. Title of invention: A method of growing bulk size single crystal by up and down movement of seed crystals (**Application no: 202441028719**) – 2024.
 5. Title of invention: Estimation of thermal expansion of solid materials by using graphite rod and a method thereof (**Application no: 202441046228**) – 2024.

GRANTED

1. Title of invention : Apparatus for crystal growth in vacuum – Design Patent
(**Application no: 353544-001**) - 2021 (**Granted on 13/01/2023**).
2. Title of invention : Apparatus for crystal growth in vacuum and a method thereof
(**Application no: 202141057590**) – 2021 (**Granted on 30/08/2023**).
3. Title of invention : Extendable stand for immersion heater – Design Patent
(**Application no: 343338-001**) - 2021 (**Granted on 18/04/2024**).
4. Title of invention : Air tight sound free sample possessor for Optoacoustic Spectroscopy – Design patent (**Application no: 397196-001**) - 2023 (**Granted on 24/04/2024**).
5. Title of invention : Sample holder for Photoacoustic Spectroscopy – Design Patent
(**Application no: 397197-001**) - 2023 (**Granted on 10/05/2024**).
6. Title of invention : Miniature Shock Tube – Design Patent
(**Application no: 417385-001**) – 2024 (**Granted on 19/07/2024**).
7. Title of invention : Shuttle Guard - Badminton Helmet for Safe Play – Design Patent
(**Application no: 417386-001**) – 2024. (**Granted on 19/07/2024**)
8. Title of invention : Miniature Magnetic stirrer – Design Patent
(**Application no: 418656-001**) – 2024. (**Granted on 19/07/2024**)

COURSES CERTIFIED:

1. **“Structural Analysis of Nanomaterials”** in Indian Institute of Technology Roorkee from September 2020 to October 2020 (4 week course).
2. **“Innovation, Business Models and Entrepreneurship”** in Indian Institute of Technology Roorkee from September 2020 to November 2020 (8 week course).
3. **“Optical Sensors”** in Indian Institute of Technology Roorkee from January 2021 to February 2021 (4 week course).
4. **“Solar Photovoltaics, Fundamentals, Technology and Applications”** in Indian Institute of Technology Roorkee from July 2021 to September 2021 (8 week course).
5. **“Solar Energy Engineering and Technology”** in Indian Institute of Technology Guwahati from July 2021 to October 2021 (12 week course).
6. **“Patent Drafting for Beginners”** in Indian Institute of Technology Madras from January 2022 to February 2022 (4 week course).

7. **“Patent Law for Engineers and Scientists”** in Indian Institute of Technology Madras from January 2022 to April 2022 (12 week course).
8. **“Air Pollution and Control”** in Indian Institute of Technology Madras from January 2022 to April 2022 (12 week course).
9. **“Innovation by Design”** in Indian Institute of Technology Bombay from July 2022 to August 2022 (4 week course).
10. **“Physics of Renewable Energy Systems”** in Indian Institute of Technology Kharagpur from July 2022 to October 2022 (12 week course).
11. **“Biomedical Nanotechnology”** in Indian Institute of Technology Roorkee from August 2022 to September 2022 (4 week course).
12. **“Body Language: Key to Professional Success”** in Indian Institute of Technology Roorkee from August 2022 to September 2022 (4 week course).
13. **“Guidance and Counselling”** in National Institute of Technical Teachers Training and Research, Chennai from July 2022 to September 2022 (4 week course).
14. **“Academic Writing”** in HNB Garhwal University (A Central University) Srinagar Garhwal (Uttarakhand) from July 2022 to October 2022 (15 week course).
15. **“Education: Concept, Nature and Perspectives”** in Indira Gandhi National Open University, New Delhi from July 2022 to September 2022 (16 week course).
16. **“Biophotonics”** in Indian Institute of Technology Kharagpur from January 2023 to April 2023 (12 week course).
17. **“Introduction to Professional Scientific Communication”** in Indian Institute of Technology Kanpur from January 2024 to February 2024 (4 week course).
18. **“Forensic Linguistics”** in Indian Institute of Technology Madras from February 2024 to March 2024 (4 week course).

ACHIEVEMENTS AND AWARDS:

- **“Young Scientist Fellowship Scheme Award”** on 23.10.2024 at TNSCST, Chennai.
- **“Appreciation Award - NPTEL Enthusiastic”** during Jan – Apr 2024 at **IIT Madras**.
- **“Appreciation Award - NPTEL Believer”** during July – Dec 2022 at **IIT Madras**.
- **“Appreciation Award - NPTEL Motivated Learner”** during Jan – Apr 2022 at **IIT Madras**.
- **“Young Scientist Award 2021”** on 16th June 2021 at **Institute of Researchers, Kalpetta, Kerala**.
- **“Best paper presentation Award”** in the “National Seminar of Materials System and Modeling (ETMSM – 2018)” held during 28th – 1st March 2018 at **Government Arts College for Men, Krishnagiri**.

- **“Best paper presentation Award”** in the “National Conference on Recent Trends in Physics of Materials (NCRTPM – 2018)” held during 9th – 10th February 2018 at **Pachaiyappa’s College, Chennai.**
- **“Best crystal display award”** in the “22nd National Seminar on Crystal Growth and Applications” in association with Indian Association for Crystal Growth (IACG) held during 29th – 31st January 2018 at **Sacred Heart College, Tirupattur.**
- **“Best crystal display award”** in the “International Conference on Recent Trends in Material Science and Technology (ICRTMST – 2018)” held during 19th – 20th January 2018 at **Sri Vijay Vidyalaya College of Arts and Science, Dharmapuri.**
- **“Award for research excellence”** in the year 2018 – 2019 at **Sacred Heart College, Tirupattur.**
- **“Award for research excellence”** in the year 2017 – 2018 at **Sacred Heart College, Tirupattur.**
- **“Appreciation award”** for Photoacoustic Spectrometer Instrument Fabrication in the year 2016 – 2017 at **Sacred Heart College, Tirupattur.**
- **“Second prize in paper presentation”** in the “International Conference on Material Science and Technology” held on 5th October 2017 at **Gonzaga College, Krishnagiri.**
- **“First prize in paper presentation”** in the “UGC Sponsored - National Conference on Smart Materials” held during 11th – 12th September 2017 at **Sacred Heart College, Tirupattur.**
- **“Best crystal display award”** in the “21st National Seminar on Crystal Growth and Applications” in association with Indian Association for Crystal Growth (IACG) held during 6th – 8th March 2017 at **National College, Tiruchirapalli.**
- **“First prize in paper presentation”** in the “National seminar on Emerging Trends in Material Science” held on 25th September 2015 at **Gonzaga College, Krishnagiri.**

SPECIAL SESSIONS DELIVERED:

1. Resource Person in the workshop on IPR Awareness Program on the topic **“Patent Searching Strategies”** Organized by Intellectual Property Right Cell of Marudhar Kesari Jain College for Women, Vaniyambadi on 28.02.2024.
2. Resource Person in the seminar on **“My Story – Motivational Session by Successful Entrepreneurs”** Organized by Institution’s Innovation Council (IIC), ATAL Ranking of Institutions in Innovation Achievements (ARIIA) & Women Entrepreneurship Development Cell (WEDC) of Marudhar Kesari Jain College for Women, Vaniyambadi on 31.01.2024.
3. Resource Person in the National Energy Conservation Day Session on **“Need of Energy Conservation”** Organized by Institution’s Innovation Council (IIC) &

ATAL Ranking of Institutions in Innovation Achievements (ARIIA) of Marudhar Kesari Jain College for Women, Vaniyambadi on 14.12.2023.

4. Resource Person in the seminar on **“Chemistry of Crystals”** Organized by the Department of Chemistry, Islamiah Women’s College, Vaniyambadi on 21.03.2023.

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

1. Participated in SERB sponsored **“Two days workshop on Perovskite solar cells (WPSC 2023)”** held during 15th Dec 2023 to 16th Dec 2023 at Bharathidasan University, Trichy.
2. Participated a **“5 Days online workshop on SPSS in research”** organized by Star International Foundation for Research and Education, Tiruchengode, Tamil Nadu, India during 26.12.2023 to 30.12.2023.
3. Participated in DST SERB CRG sponsored workshop on **“Advanced Electrochemical Techniques”** held on 26th September 2022 at Bharathiar University, Coimbatore.
4. Participated in CSIR sponsored national seminar on **“Nanomaterials for Energy Harvesting and Applications”** held on 26th August 2022 at KGISL Institute of Technology, Coimbatore.
5. Participated and presented a paper **“National Conference on Innovation in Science and Technology (NCIST – 2021)”** held during 8th - 9th July 2021 at Sri Venkateswara College of Engineering and Technology, Chittoor.
6. Attended the Live Workshop on **“Technology Commercialisation”** held on 15th February 2021 at Turnip Innovations Pvt. Ltd., Mumbai.
7. Participated and presented a paper in the national seminar **“Advanced Materials and its Applications”** held during 5th and 6th March 2020 at Karpagam Academy of Higher Education, Coimbatore.
8. Participated and presented a paper in the **“International Conference on Advances in Materials Research (ICAMR – 2019)”** held on 12th February 2019 at Sacred Heart College, Tirupattur.
9. Participated and presented a paper in the **“23rd National Seminar on Crystal Growth and Applications (NSCGA – 2019)”** in association with Indian Association for Crystal Growth (IACG) held during 28th – 30th January 2019 at Bharathiar University, Coimbatore.
10. Participated and presented a paper in the **“National Conference on Advanced Materials and applications”** held on 7th September 2018 at Auxilium College, Vellore.
11. Participated and presented a paper in the **“National Conference on Processing and Fabrication of Advanced Materials (NCPFAM – 2018)”** held during 1st – 2nd March 2018 at SSN College of Engineering, Chennai.

12. Participated and presented a paper in the “**National Seminar of Materials System and Modeling (ETMSM – 2018)**” held during 28th – 1st March 2018 at Government Arts College for Men, Krishnagiri.
13. Participated and presented a paper in the “**National Conference on Recent Trends in Physics of Materials (NCRTPM – 2018)**” held during 9th –10th February 2018 at Pachaiyappa’s College, Chennai.
14. Participated and presented a paper in the “**22nd National Seminar on Crystal Growth and Applications**” in association with Indian Association for Crystal Growth (IACG) held during 29th -31st January 2018 at Sacred Heart College, Tirupattur.
15. Participated and presented a paper in the “**International Conference on Recent Trends in Material Science and Technology (ICRTMST – 2018)**” held during 19th – 20th January 2018 at Sri Vijay Vidyalaya College of Arts and Science, Dharmapuri.
16. Participated and presented a paper in the “**VII All India Young Scientist Convention**” held during 18th – 22nd December 2017 at Periyar University, Salem.
17. Participated and presented a paper in the “**International Conference on Material Science and Technology**” held on 5th October 2017 at Gonzaga College, Elathagiri, Krishnagiri.
18. Participated and presented a paper in the “**UGC Sponsored - National Conference on Smart Materials**” held during 11th – 12th September 2017 at Sacred Heart College, Tirupattur.
19. Participated and presented a paper in the “**International Conference on Material Science and Technology**” held during 28th – 29th August 2017 at Pachamuthu College, Dharmapuri.
20. Participated in the “**International Symposium on Recent Advances in Material Science**” held on 24th August 2017 at Sri Sarada College for Women, Salem.
21. Participated and presented a paper in the “**International Conferences on Advances in Materials**” held on 7th April 2017 at M. Kumarasamy College of Engineering, Thalavapalayam, Karur.
22. Participated and presented a paper in the “**21st National Seminar on Crystal Growth and Applications**” in association with Indian Association for Crystal Growth (IACG) held during 6th – 8th March 2017 at National College, Tiruchirapalli.
23. Participated in the “**National Level Workshop on Advanced Materials**” held on 23rd February 2017 at Periyar University PG Extension Centre, Dharmapuri.
24. Participated in the “**Science and Technology Conference**” held on 19th December 2016 at Sacred Heart College, Tirupattur.
25. Participated and presented a paper in the “**National Conference on Systematic Investigations of Structural, Morphological and Optical Properties of Materials**” held on 01 December 2016 at Sacred Heart College, Tirupattur.

26. Participated in the **“Workshop on Functional Materials and Spectroscopy”** held on 23rd August 2016 at Sacred Heart College, Tirupattur.
27. Participated in the **“International Conference on Smart Materials”** held on 13th November 2015 at Sacred Heart College, Tirupattur.
28. Participated in the **“Workshop on Spectroscopy and its Perspectives”** held during 10th – 12th September 2015 at Sacred Heart College, Tirupattur.
29. Participated and presented a paper in the **“National seminar on Emerging Trends in Material Science”** held on 25th September 2015 at Gonzaga College, Elathagiri, Krishnagiri.
30. Participated in the **“National Workshop on Luminescence Materials Devices and Applications (LMDA - 2015)”** held during 19th – 20th August 2015 at IGCAR, Kalpakkam.

WEBINARS:

1. Participated in the international webinar on **“Indigenous Materials for Energy Storage (Lithium-ion and Supercapacitor) Applications”** held on 3rd September 2022 at Bharat Institute of Engineering and Technology, Hyderabad.
2. Participated the international webinar on **“Milestones as a Guide for Academic Career Development”** held on 28th July 2021 at Sri sarada college for women, Salem.
3. Participated the international webinar on **“Disruptive Technologies Reforming Industries”** held on 27th March 2021 at Arasu Engineering College, Kumbakonam.
4. Participated the international webinar on **“Nanostructure for Next Generation Devices”** held on 16th March 2021 at Loyola College, Chennai.
5. Participated the international virtual seminar on **“Nano Research and Development”** held on 16th March 2021 at Karpagam Academy of Higher Education, Coimbatore.
6. Participated the webinar on **“A Nonlinear Perspective of Extreme Events”** held on 17th February 2021 at Vel Tech Rangarajan DR. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai.
7. Participated the webinar on **“Recent trends in Nanotechnology”** held on 6th February 2021 at Arasu Engineering College, Kumbakonam.
8. Attended the conference on **“International Virtual Conference on Advances in Molecular Materials Research (AMMR 2021)”** held at during 3rd February 2021 – 5th February 2021 at Osaka University, Japan.
9. Participated the webinar on **“Synthesis, Structural Explication and Spectral Characterizations of Macro and Nano Crystals”** held on 30th January 2021 at Arasu Engineering College, Kumbakonam.

10. Participated the webinar on **“Materials and Commercial Aspects of Solar Photovoltaic Systems”** held on 27th January 2021 at Vels Institute of Science, Technology & Advanced Studies (VISTAS), Pallavaram, Chennai.
11. Participated the webinar on **“Emerging Materials for Solar Energy Conversion”** held on 12th January 2021 at Sethu Institute of Technology, Virudhunagar.
12. Participated the webinar on **“Recent Development in Supercapacitors and Supercapatteries”** held on 9th January 2021 at Sona College of Arts and Science, Salem.
13. Participated the international webinar on **“Cosmology and Nanotechnology”** held at during 27th May 2020 - 29th May 2020 at Nallamuthu Gounder Mahalingam College, Pollachi.
14. Participated the webinar on **“Advanced Materials for Future”** held on 29th May 2020 at Morning Star Home Science College, Ernakulam, Kerala.
15. Participated the international webinar on **“Covid 19 and Global challenges”** held on 27th May 2020 at VELS Institute, Chennai.
16. Participated the webinar on **“Getting Started in Sky Watching”** held at during 25th May 2020 – 26th May 2020 at Saurashtra University, Rajkot.
17. Participated the webinar on **“Yoga for Mind and Body”** held on 21st May 2020 at Tamilnadu Teachers Education University, Chennai.
18. Participated the webinar on **“Eight Limbs of Yoga”** held on 14th May 2020 at Tamilnadu Teachers Education University, Chennai.
19. Participated the webinar on **“Online National Awareness Program Covid - 19”** held on 12th May 2020 at Indian Association of Physics Teachers, Madhya Pradesh.
20. Participated the webinar on **“Crystallography and its Applications”** held on 8th May 2020 at Er. Perumal Manimekalai College of Engineering, Hosur.
21. Participated the webinar on **“Principle and Applications of Electronic Spectroscopy”** held on 7th May 2020 at Annai College of Arts and Science, Trichy.
22. Participated the webinar on **“Webinar Series on Conceptual Applied Physics”** held at during 5th May 2020 – 8th May 2020 at Saurashtra University, Rajkot.

FACULTY DEVELOPMENT PROGRAMMES:

1. Participated in International Level Virtual Faculty Development Program on **“Modern Research Convergence in Next Generation Computing”** Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India during 18.12.2023 to 22.12.2023.
2. Participated in One Week National Level Faculty Development Program (Online) Under DBT Star Status Scheme Organized by Department of physics on **“Development of materials**

characterization techniques and their future prospects” Sri G.V.G Visalakshi College for Women, Udumalpet, Tamil Nadu, India during 18.12.2023 to 22.12.2023.

3. Participated in national one week Virtual Faculty Development Program on **“Recent Advances in Chemical Sciences”** from 27th Nov 2023 to 01st Dec 2023 at K.S.R College of Arts and Science for Women, Tiruchengode.
4. Participated in national one week faculty development programme on **“Research Methodology”** from 26th Sep 2023 – 04th Oct 2023 at Dr.M.G.R.Educational and Research Institute, Chennai.
5. Participated in national one week faculty development programme on **“ICT Tools for Effective Teaching and Learning”** from 23rd May 2022 – 28th May 2022 at Amar Sewa Mandal’s Kamla Nehru Mahavidyalaya, Nagpur, Maharashtra.
6. Participated the six days online faculty development programme on **“Green Chemistry for Sustainable Development”** held at during 16th May 2022 – 21st May 2022 at SRM Institute of Science and Technology, Ramapuram Campus, Chennai.
7. Participated the national level faculty development programme on **“An online Faculty Development Programme on Intellectual Property Rights”** held at 9th February 2022 at Jamal Mohamed College, Tiruchirapalli.
8. Participated the national level faculty development programme on **“An online Faculty Development Programme on Astronomical Studies”** held at during 7th – 8th February 2022 at Jamal Mohamed College, Tiruchirapalli.
9. Participated the seven days online faculty development programme on **“Advanced Materials for Future Science (AMFS)”** held at during 6th – 13th September 2021 at Jeppiaar Engineering College, Chennai.
10. Participated the national level faculty development programme on **“Applied Optics and Photonics”** held at during 10th – 12th August 2021 at Kumaraguru College of Technology, Coimbatore.
11. Participated in national level faculty development programme on **“Five Day Innovation series on patent search and filing”** held at during 16th February 2021 – 20th February 2021 at Andhra University collaboration with Turnip Innovations, Visakapatnam.
12. Participated in national level faculty development programme on **“Research Trends in Physics & Electronics”** held at during 27th January 2021 – 1st February 2021 at Little Flower Degree College, Uppal, Hyderabad.
13. Participated the faculty development programme on **“Funding Schemes and Patenting Scientific Innovations”** held on 13th June 2020 at Government Arts College, Trichy.

14. Participated the faculty development programme on **“Frontiers in Scientific Research and Technology”** held at during 11th June 2020 – 13th June 2020 at St. Joseph’s Institute of Technology, Chennai.
15. Participated the faculty development programme on **“Nanotechnology Innovation in Energy and Biomedicine”** held at during 8th June 2020 – 10th June 2020 at Kamaraj College of Engineering and Technology, Madurai.
16. Participated the faculty development programme on **“Changes in attitude towards teaching”** held on 2nd June 2020 at Arulmigu Palaniandavar College of Arts and Culture, Palani.
17. Participated the faculty development programme on **“Managing Online Classes and Co-Creating MOOCS: 2.0”** held at during 18th May 2020 – 3rd June 2020 at Ramanujan College University of Delhi, Delhi.
18. Participated the faculty development programme on **“Nanomaterials for Energy Harvesting and Biomedical Applications”** held at during 18th May 2020 – 22nd May 2020 at Godavari Institute of Engineering and Technology (Autonomous), Rajamahendravaram, Andhra Pradesh.
19. Participated the faculty development programme on **“Redefining Education Through Gamification”** held on 19th May 2020 at Geetha Jeevan Arts and Science College, Tuticorin.
20. Participated the faculty development programme on **“My Life My Pride My Career”** held on 18th May 2020 at Patrician College of Arts and Science, Chennai.
21. Participated the faculty development programme on **“Project Proposals for Funding Agencies (UGC Stride & ICSSR Impress): Preparation and Submission Protocol”** held at during 16th May 2020 – 17th May 2020 at Patrician College of Arts and Science, Chennai.
22. Participated the faculty development programme on **“Moodle Learning Management System”** held on 1st March 2020 at Vidyavardhini College of Engineering and Technology, IIT Bombay.

PROFESSIONAL MEMBERSHIPS:

1. Indian Association of Physics Teachers (IAPT) – 13883 L8877.
2. Institute of Researchers – LM012111.

PUBLICATIONS:

1. **J.Thirupathy** “Synthesis, fluorescence studies and thermal stability of zirconium lithium cobalt trioxide (mixed metal oxides) nanocomposites for light emitting diode applications” in Journal of Fluorescence (**Accepted**) (**2025**). (**IF – 3.1**)

2. **J.Thirupathy**, G. Kanagan and K. Mohanapandian “Crystal growth, thermal and third-order NLO property of a novel 4-aminopyridine cuminaldehyde organic single crystal for photonics and optoelectronic devices” in Journal of Materials Science: Materials in Electronics, 36, 826 (2025) – DOI: 10.1007/s10854-025-14864-2. **(IF - 2.8)**.
3. **J. Thirupathy**, P.Revathi, and T.Balakrishnan “Crystal growth, optical, mechanical and dielectric analysis of semiorganic glycine manganese sulphate single crystal for opto-electronic device application” in Crystal Research and Technology, 59, 12, 2400173 (2024) – DOI: 10.1002/crat.202400173. **(IF - 1.5)**.
4. **J. Thirupathy**, P.Revathi, and T.Balakrishnan “An investigation on optical, dielectric and thermal analysis of semiorganic bisglycine cobalt chloride dihydrate single crystal for electronic and opto-electronic devices” in Optical and Quantum Electronics, 56, 104 (2024)–DOI: 10.1007/s11082-024-07713-9. **(IF - 3.3)**.
5. M.Punithavathi, **J. Thirupathy***, P.Revathi “An Investigation on Optical, Larvacidal and Cytotoxicity Analysis of Sulfanilic Acid Single Crystal for Optical and Biomedical Applications” in Cell Biochemistry and Biophysics, (2024) - DOI: 10.1007/s12013-024-01547-8. **(IF - 1.8)**.
6. P. Revathi, T. Balakrishnan and **J. Thirupathy*** “An Investigation on Structural, optical thermal and Dielectric Analysis of L-Lysine Iodide Semiorganic Nonlinear Optical Single Crystal for Opto-electronic Application” in Brazilian Journal of Physics, 54, 209 (2024) – DOI: 10.1007/s13538-024-01588-7. **(IF - 1.5)**.
7. P. Revathi, T. Balakrishnan and **J. Thirupathy*** “Optical, dielectric, Hirshfeld surface analysis, mechanical, and photoacoustic spectroscopy of glycine nickel dichloride dihydrate single crystal for optoelectronic devices” in Journal of Materials Science: Materials in Electronics, 35, 1503 (2024) – DOI: 10.1007/s10854-024-13183-2. **(IF - 2.8)**.
8. K. Mohanapandian, V. Ponnarasan and **J.Thirupathy*** “An investigation on structural, dielectric and optical properties of pure and Fe-doped CuO nanoparticles for optoelectronic device applications” in Optical and Quantum Electronics, 54, 347 (2024) - DOI: 10.1007/s11082-023-05977-1. **(IF - 3.3)**.
9. N. Preetha, Tae Hwan Oh, S. Esakki Muthu, S. Divya, **J. Thirupathy*** “An investigation on optical, mechanical and thermophysical properties of sodium sulfanilate dihydrate single crystal for optical window and microelectronics applications” in Crystal Research and Technology, **2300212 (2023)** - DOI: 10.1002/crat.202300212. **(IF – 1.59)**.
10. A. Sivakumar, S. Sahaya Jude Dhas, Lidong Dail, **J. Thirupathy**, K. Sethuraman, Raju Suresh Kumar, Abdulrahman I. Almansour, N. Vijayan and S.A. Martin Britto Dhas, “Dynamic shockwave-induced switchable order to disorder states of single crystal of

sulfamic acid: a combined study of X-ray and Raman Spectroscopy” in Journal of Materials Science, 58, 8415–8425 (2023) – DOI: 10.1007/s10853-023-08532-1. (IF – 4.68).

11. N. Preetha, S. Esakki Muthu, **J. Thirupathy*** “Optical and thermophysical properties of copper sulphate pentahydrate single crystal for transmission ultra-violet filter and optical communication applications” in Journal of Materials Science: Materials in Electronics, 34, 11 (2023) – DOI: 10.1007/s10854-023-10358-1. (IF - 2.8).
12. **J. Thirupathy**, “Investigation on the Thermophysical Properties and Dielectric Analysis of Benzil Single Crystal for Optical and Photonic Applications” in Brazilian Journal of Physics, 53, 116 (2023) – DOI: 10.1007/s13538-023-01336-3. (IF – 1.5).
13. A. Sivakumar, S. Sahaya Jude Dhas, **J. Thirupathy**, K.P.J. Reddy, Raju Suresh Kumar, Abdulrahman I. Almansour, Shubhadip Chakraborty and S.A. Martin Britto Dhas, “Switchable crystal – amorphous states of $\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$ induced by a Reddy tube” in New Journal of Chemistry, 46, 5091-5099 (2022) – DOI:10.1039/d2nj00129b. (IF – 3.59).
14. A. Sivakumar, S. Sahaya Jude Dhas, **J. Thirupathy**, P. Siva Prakash, K. Anitha, Suresh Kumar Raju, S. Arumugam, and S. A. Martin Britto Dhas, “Investigation on crystallinity and optical properties of L-tartaric acid single crystal at dynamic shocked conditions” in Journal of Materials Science: Materials in Electronics, 33, 10841–10850 (2022) – DOI: 10.1007/s10854-022-08065-4. (IF – 2.8).
15. **J. Thirupathy**, S. Sahaya Jude Dhas, S.A. Martin Britto Dhas, “ShockWave Impact, Optical, Chemical Etching and Thermal Analyses of a Few Technologically Vibrant Crystals” in Journal of Electronic Materials, 51, 3132-3140 (2022) – DOI: 10.1007/s11664-022-09569-9. (IF – 2.2).
16. **J. Thirupathy**, “Investigation on Optical and Thermal Transport Properties of L-Tartaric Acid Single Crystal for Electro-Optical Device Applications” in Brazilian Journal of Physics, 52, 3 (2022) – DOI: 10.1007/s13538-022-01089-5. (IF – 1.5).
17. **J. Thirupathy**, “An investigation on thermophysical and dielectric properties of Ammonium dihydrogen phosphate single crystal for optoelectronic device applications” in International Journal of Thermophysics, 42, 1-6 (2021) - DOI: 10.1007/s10765-021-02793-1. (IF – 2.5)
18. **J. Thirupathy**, “An investigation of the thermal and dielectric properties of nickel sulphate hexahydrate single crystal for Sensors, Bandpass Filters and optical applications” in Journal of Electronic Materials, 50, 3385–3391 (2021) - DOI: 10.1007/s11664-021-08830-x. (IF – 2.2).
19. **J. Thirupathy**, T. Archana, “Dielectric and Thermal Transport Properties of Lithium Manganate (LiMn_2O_4) for Use in Electrical Storage Devices” in ECS Journal of Solid State Science and Technology, 10, 113002 (2021) - DOI: 10.1149/2162-8777/ac3448. (IF – 2.2).

20. **J. Thirupathy**, S. Sahaya Jude Dhas, M. Jose and S.A. Martin Britto Dhas, “An investigation on photoacoustic spectroscopy and dielectric properties of sulfanilic acid nonlinear optical single crystal for different applications”, in Journal of Materials Science: Materials in Electronics, 31, 14531–14536 (**2020**) DOI: 10.1007/s10854-020-04013-2. (**IF – 2.8**).
21. **J. Thirupathy**, S. Sahaya Jude Dhas, M. Jose, S.A. Martin Britto Dhas, “Optical, dielectric properties and thermal analysis on sodium sulfanilate dihydrate nonlinear optical single crystal” in Journal of Materials Science: Materials in Electronics, 30, 2224–2234 (**2019**) – DOI: 10.1007/S10854-018-0493-Z. (**IF – 2.8**).
22. **J. Thirupathy**, S. Sahaya Jude Dhas, M. Jose, S.A. Martin Britto Dhas, “An investigation on optical, mechanical and thermal properties of NSH single crystal - a UV light band pass filter applications” in Material Research Express, 6, 086206 (**2019**) – DOI: 10.1088/2053 – 1591/ab1da2. (**IF – 2.3**).
23. A. Sivakumar, S. Suresh, S. Balachandar Settu, **J. Thirupathy**, M. Kalyana Sundar Jeyaperumal, S.A. Martin Britto Dhas, “Effect of Shock Waves on Thermophysical Properties of ADP and KDP crystals” in Optics and Laser Technology, 111, 284-289 (**2019**) - DOI: 10.1016/j.optlastec.2018.10.001. (**IF – 4.6**).
24. A. Sivakumar, S. Reena devi, **J. Thirupathy**, R. Mohan Kumar, S.A. Martin Britto Dhas, “Effect of Shock waves on Structural, Thermophysical and Dielectric properties of Glycine phosphate (GPI) crystal” in Journal of Electronic Materials, 48, 7216-7225 (**2019**) – DOI: 10.1007/s11664-019-07510-1. (**IF – 2.2**).
25. **J. Thirupathy**, S. Sahaya Jude Dhas, M. Jose, S. Balachandar, S.A. Martin Britto Dhas, “Thermophysical and Optical properties of L-Tartaric Acid Crystal” in Crystal Research and Technology, 53, 3, 1700267 (**2018**) - DOI: 10.1002/crat.201700267. (**IF – 1.59**).
26. A. Saranraj, **J. Thirupathy**, S. Sahaya Jude Dhas, M. Jose, G. Vinitha, S. A. Martin Britto Dhas, “Growth and characterization of unidirectional benzil single crystal for photonic applications” in Applied Physics B, 124, 97 (**2018**) – DOI: 10.1007/S00340-018-6971-4. (**IF – 2.07**).
27. T. Balakrishnan, P. Revathi, A. Krishnaveni, **J. Thirupathy**, K. Ramamurthi, “Structural, Dielectric, thermal and antibacterial properties of a ferroelectric single crystal: bis-glycine cobalt sulphate pentahydrate” in Journal of Materials Science: Materials in Electronics, 29, 16971–16982 (**2018**) – DOI: 10.1007/S10854-018-9792-7. (**IF – 2.8**).

BOOK CHAPTERS PUBLISHED:

1. **J. Thirupathy** and P. Revathi, “Photoacoustic Spectroscopy Analysis of Benzil Single Crystal For Photonic Applications” in Emerging Trends in Science & Technology

Engineering and Arts (SEA) – SCIENG Publications, ISBN: 978-81-955557-0-3 **(2022)**
(National).

2. E. Yamuna, K. Prabakaran and **J. Thirupathy**, “Pharmaceutical Based Cyclohepta[B] Indoles Scaffolds” in Research and Development in Pharmaceutical Science Volume III, Bhumi Publishing, ISBN: 978-93-91768-47-8 **(2022) (National).**
3. **J. Thirupathy**, “Pharmacological Activities of Hetero-fused Analogues” in Recent Trends and Latest Innovations in Life Sciences, Global Academy, ISBN: 978-625-8284-03-4 **(2022) (International).**
4. E. Yamuna, K. Prabakaran and **J. Thirupathy**, “Graphite Carbon Nitride” in IntechOpen, DOI: <http://dx.doi.org/10.5772/intechopen.104976> **(2022) (International).**
5. **J. Thirupathy**, “A Nonlinear Optical Benzil Single Crystal for Photonic Applications” in Springer DOI: https://doi.org/10.1007/978-981-99-2548-3_3, ISBN: 978-981-99-2548-3, **(2023) (International).**
6. **J. Thirupathy** “Psychology of Gratitude and Happiness” in journal of Essentials of Positive Psychology, Shanlax Publications, 26, ISBN: 978-81-19337-28-6, **(2023) (National).**
7. **J. Thirupathy** “Promoting positive emotions on psychological well-being” in journal of Essentials of Positive Psychology, Shanlax Publications, 64, ISBN: 978-81-19337-28-6, **(2023) (National).**
8. **J. Thirupathy** and P. Revathi “Optical analysis of few scientifically important nonlinear optical single crystal for optical applications” in The science nexus: Pioneering progress across Biotechnology, Chemistry, Computer Science, Physics and Microbiology, Chyren Publication, 53, ISBN: 978-81-19820-35-1, **(2024) (National).**

JOURNAL OF REVIEWER:

1. Journal of Physics: Condensed Matter – IOP Science.
2. Journal of Physics: Materials – IOP Science.
3. Physica Scripta – IOP Science.
4. Journal of Physics D: Applied Physics

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1. Karpagam Academy of Higher Education, Coimbatore (Ref.No: RS/IG/R1/10/2021/149, Date: 27/4/21).
2. Anna University, Chennai (Ref. No: 4170008, Date: 16.12.2022).

RESEARCH PROJECT GUIDED:

1. PG (M. Sc. Physics) – 16.
2. UG (B. Sc. Physics) – 12.