1. Name : **Dr. Reena Devi S.** 

2. Designation : Assistant Professor

3. Qualification : M.Sc., M.Phil., B.Ed., Ph.D

4. Mobile number : 9487967423

5. E-mail id : reenadevis@auxiliumcollege.edu.in

6. Teaching Experience : 13 years

7. Area of specialization : Crystal Growth

8. Research Experience and Guidance

# **Ph. D:** INVESTIGATION ON THE GROWTH ASPECTS, STRUCTURAL AND NONLINEAR OPTICAL PROPERTIES OF 4-METHYLPYRIDINIUM DERIVATIVE CRYSTALS.

Guided M.Sc., Students: 13 no's

9. Projects Completed / Ongoing: Nil

10. No. of Papers Published : 14

11. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences

: 02

- 12. No. of Seminars/Workshops/Conferences organized: 05
- 13. No. of Books Published/Edited/Co-edited; Nil
- 14. Membership in professional bodies (Descriptive):
  - ➤ Life member- National Science Foundation Eco club
- 15. Responsibilities held:
  - Research Cell committee member
  - ➤ Department co-coordinator for Innovative Inside
  - > Tutor for PG students
  - ➤ Mentor for PG students
- 16. Current Responsibilities
  - > Research Cell committee member

- > Department co-coordinator for Innovative Inside
- > Tutor for PG students
- > Mentor for PG students

### 17. Honors & awards received (Descriptive)

- ➤ Project Mentor under the category of Physical and Chemical sciences in Sacred Heart Young Innovator Award (SHYIA-2023), Sacred Heart College (Autonomous), Tirupattur, 06th March 2023.
- ➤ Delivered an invited talk on James web space telescope –A new vision of the Universe, Sacred Heart College (Autonomous), Tirupattur, 30th Aug 2022.
- Evaluator on 30th National children's science congress co-ordinated by science forum (TNSF) at Auxilium College, Vellore, 26th NOV, 2022.
- ➤ Guest of Honour on fancy dress competition at Stanford Park edify school, Vellore, 17th Dec 2022. 19. No. of Online Courses completed (Minimum of 4 Weeks): 02

## 18. Any Other (Descriptive)

- ➤ Organizing Coordinator for "science spectacles on conservation of energy" Auxilium College, Vellore, 10<sup>th</sup> December, 2021.
- ➤ Consultancy work Bharathidasan group of Schools Physics Text book proof reading.
- > External Assessor for question paper setting.
- ➤ Organizing Committee Member for National intellectual property awareness mission organized by Intellectual Property Office, India IPR at Auxilium College, Vellore 20<sup>th</sup> Feb 2023.
- ➤ Organizing Committee Member for state level intercollegiate paper presentation organized by Research Ethics, Publication and IPR at Auxilium College, Vellore, 20<sup>th</sup> Oct, 2022.
- ➤ Organizing Committee Member for the Orientation Programme on "Innovate to Venture" at Auxilium College, Vellore, 1<sup>st</sup> to 2<sup>nd</sup> December, 2021.
- ➤ Organizing Committee Member for the Young Innovators Day" (TNSF) at Auxilium College, Vellore, 1<sup>st</sup> to 2<sup>nd</sup> December, 2021.
- ➤ Organizing Committee Member for the Young Innovators Day" (TNSF) at Auxilium College, Vellore, 23<sup>th</sup> March, 2022
- ➤ Organizing Committee Member for the National webinar on Publish and Progress organized by IQAC, committee for research and Ethics, Publication and IPR &Library, at Auxilium College, Vellore, 26<sup>th</sup> August, 2023.

#### **Publications in Journals**

- 1. **S.Reena Devi**, P.Rekha, R. Mohan Kumar, "Studies on growth, structural, thermal and nonlinear optical properties of 4-methylpyridinium 2, 4-dinitrophenolate single crystal" **Journal of Optics,** ISSN 09728821, (2023) 1-10.
- A. Sivakumar, S.Reena Devi S. Dhas, S. Sahaya Jude, R. Mohan Kumar, K. Bharathi, Kamala Dhas, S. A. Martin Britto "Switchable Phase Transformation (Orthorhombic -Hexagonal) of Potassium Sulfate Single Crystal at Ambient Temperature by Shock Waves" Journal of Crystal Growth & Design, ISSN 15287505, (2020) 20 (11), 7111-7119.
- 3. A. Sivakumar, **S. Reena Devi**, J. Thirupathy, R. Mohan Kumar, and S.A. Martin Britto Dhas, "Effect of Shock Waves on Structural, Thermophysicaland Dielectric Properties of Glycine Phosphate (GPI) Crystal", **Journal of Electronic Materials**, ISSN 0361-5235, 48 (2019), 7216-7225.
- 4. I.M. Zahid, S. Kalaiyarasi, **S. Reena Devi,** S. Suresh, T. Ganesh, R. Mohan Kumar, 2017. "Crystal growth, spectral, thermal, optical and third order nonlinearity studies of optical material: 4-N, N-dimethylamino 4'-N'-methylstilbazolium 4-hydroxybenzenesulfonate", **Journal of Optics**, ISSN 09728821, 46 (2017), 456-464.
- 5. S, Kalaiyarasi, S. Reena Devi, R. Akilan, R. Mohan Kumar, G. Chakkaravarthi "4-Methylanilinium 3-carboxy-2-hydroxypropanoate" IUCr Data, ISSN: 2414-3146, 1 (2016), x161525.
- 6. S. Kalaiyarasi, I.M, Zahid, **S. Reena Devi**, R. Mohan Kumar, "Studies on the growth aspects, structural and third-order nonlinear optical properties of Piperidinium 3-carboxy-4-hydroxy benzenesulfonate single crystal", **Journal of Crystal Growth**, ISSN: 0022-0248 460 (2017) 105-111.
- 7. S. Suresh **S. Reena Devi,** B.M. Sornamurthy, M. Arivanandhan, R. Mohan Kumar, "Growth, Structural and Optical Studies of a novel Nonlinear Optical Material: p-Toluidinium L-Tartrate", **Optik**, ISSN 0030-4026. 185 (2019) 651-656.

- 8. **S. Reena Devi**, S. Suresh, S. Kalaiyarasi, M. NizamMohideen, R. Mohan Kumar, "Synthesis, growth, structural, thermal and third order nonlinear optical properties of novel organic 4-methylpyridinium 3-nitrophthalate single crystal", **Material Science-Poland**, ISSN: 2083-134X 1 (2018) 1-12.
- 9. **S. Reena Devi**, S. Suresh, G. Vinitha, R. Mohan Kumar, "Growth aspects, structural and nonlinear optical properties of conjugate structure: 4 methylpyridinium 2-carboxy-6-nitrobenzoate, **Journal of Optics**, ISSN 09728821, , 47 (2018) 516-526.
- 10. **S. Reena Devi**, B. Valarmathi, R. Mohan Kumar, "Growth Aspects, Structural and Optical Properties of 2-aminopyridinium 2,4- dinitrophenolate Single Crystal", **Mechanics, Materials Science & Engineering**, ISSN 2412-5954, 3 (2017) 9.
- 11. **S. Reena Devi**, R. Akilan, R. Mohan Kumar, T. Ganesha, G. Chakkaravarthi, "2-Aminopyridinium 2,4-dinitrophenolate",**IUCr Data,** ISSN: 2414-3146 **9** (2016) 161489.
- 12. **S. Reena Devi,**S. Kalaiyarasi, R. Akilan, R. Mohan Kumar, G. Chakkaravarthi, "4-Methylpyridinium 2-carboxy-6-nitrobenzoate", **IUCr Data**, ISSN: 2414-3146 **1** (2016) 161803.
- 13. **S. Reena Devi,** S. Kalaiyarasi, I.M Zahid, R.Mohan Kumar, "Studies on the growth aspects, structural, thermal, dielectric and third order nonlinear optical properties of solution grown 4-methylpyridinium p-nitrophenolate single crystal". **Journal of crystal Growth**, ISSN: 0022-0248. 454 (2016) 139.

## **Publications in Proceedings**

- 1. Presented paper on 21<sup>st</sup> National seminar on Crystal Growth and its Application at National College, Tiruchirapalli, 6-8<sup>th</sup> March 2017.
- Presented paper on International Conference on Material Processing and Applications at Center for Crystal Growth, School of Advanced sciences, VIT University, Vellore, 14-16<sup>th</sup> Dec 2016.
- 3. Presented paper on National seminar on Current, Past and Future Scenario in Applied Sciences at Tamil Nadu Open University, Chennai, 29<sup>th</sup> July 2016.

# FDP's/ Seminars/ Workshops/Webinars

- 1. Participated in the international conference in Functional Nano materials and Nano devices (ICFN2023) organized by Allied Health sciences, Chettinad Academy of Research and education, Kelambakkam, 26<sup>th</sup> September 2023.
- 2. National intellectual property awareness mission organized by Intellectual Property Office, India IPR at Auxilium College, Vellore 16<sup>th</sup> Sep 2023.
- 3. National Webinar on "Applications of Physics in Medicine" jointly organized by PG & Research Department of Physics, Auxilium College (Autonomous), Vellore and Department of Physics, Little Flower Degree College, Hyderabad on 22 August 2023.
- 4. National webinar on Publish and Progress organized by IQAC, committee for research and Ethics, Publication and IPR &Library, at Auxilium College, Vellore, 26<sup>th</sup> August, 2023.
- 5. National webinar series on Astrophysics, Exoplanets –Distinct Worlds from solar the Solar system, Division of Physical Sciences, Karunya Institute of Technology and Sciences, Coimbatore, 4<sup>th</sup> August 2023.
- 6. National Virtual Workshop on Machine Learning: An Ice Breaker Between Materials Research and Data Science SSN Research Centre, Indian Association for Crystal Growth (IACG), Chennai & Anand Memorial Trust, Hyderabad, 12-13 April 2023.
- 7. International virtual conference on Recent trends in Physics, Jayaraj Annapackiam College for Women, Theni, 16-17<sup>th</sup> March 2023.
- 8. One Day International Webinar on Advanced Functional Materials, Gonzaga College of Arts and Science for Women, Krishnagiri, Tamil Nadu, India, 28<sup>th</sup> Sep 2022.
- 9. National conference on Advanced materials and applications with ISPA at Auxilium college, vellore, 13-14<sup>th</sup> October 2022.
- 10. National Level Webinar on Nonlinear Dynamical Systems and its Applications, Theivanai Ammal College for Women, Villupuram on 17<sup>th</sup> May 2021.
- 11. International seminar on Nonlinear Physics, SSN college of Engineering, 5<sup>th</sup> June 2021.
- 12. International E-conference on Advanced Material Science and Gaphene Nanotechnology at United Research Forum, London 25-26<sup>th</sup> Nov 2020.

- 13. National Level Webinar on Smart Materials and its Bio Medical applications at Marudhar Kesari Jain College for Women, Vaniyambadi, 24<sup>th</sup> Nov 2020.
- 14. 22<sup>nd</sup> National seminar on Crystal growth and applications at Sacred Heart College, Tiruupattur, 29-31<sup>st</sup> Jan 2018.
- 15. International Conference on Recent Trends in Applied science and Technology at Anna University Chennai, 8- 9<sup>th</sup> Sep 2017.
- 16. Twenty Sixth National Seminar on Crystal Growth and Epitaxy at Anna University Chennai, 14-15<sup>th</sup> March 2016
- 17. National Conference on Advanced Materials Science at Jerusalem College of Engineering, Chennai, 22<sup>nd</sup> July 2015.
- 18. Workshop on Powder X-ray Diffraction Data Analysis at SRM University, Chennai, 3-4<sup>th</sup> July 2015.
- 19. CSIR sponsored multidisciplinary Workshop on 'The role and importance of Nano Materials in Energy and Environmental sectors' at Sacred Heart College, Tirupattur, 28<sup>th</sup> Feb 2013.
- 20. UGC sponsored state level seminar on "Recent trends in Material science" at Sacred Heart College, Tiruupattur, 10-11<sup>th</sup> Sept 2009.
- 21. NACC Sponsored National level Workshop on 'Enhancing Quality of Higher Education Institutions Through IQAC' at Sacred Heart College, Tiruupattur, 9-10<sup>th</sup> Sept 2011.