



Lekshmpuram College of Arts & Science

Neyyoor- 629802

TEACHER PROFILE Department: PHYSICS



1	Name	:	Dr.T.SUTHAN			
2	Date of Birth	:	19-11-1984			
3	Educational Qualification	:	M.Sc. , MBA.,M.Phil.,PGDCA., Ph.D			
4	Date of Appointment	:	23-07-2014			
5	Designation	:	Assistant Professor of Physics			
6	Experience (01-06-2015)	:	UG	4.4 Years	PG	3.1 Years
7	Communication Address with e-mail ID and contact number	:	Dr. T.Suthan Assistant Professor of Physics Lekshmpuram College of Arts & Science Neyyoor-629802, Kanya Kumari District, Tamil Nadu Mobile: 9486783163 Email: suthantr@yahoo.co.in			
8	Permanent Address	:	S/O T.Thanulingam, TTR Bhavanam, Moonkilvilai, Kalpady Post, PIN-629204 Kanya Kumari District, Tamil Nadu Mobile: 9486783163 Email: suthantr@yahoo.co.in			
9	Area of specialization (Research)	:	Solid State Physics (Crystal Growth)			
10	Participation in Academic Bodies	:	M.Phil (Physics), Board of Studies Member in Noorul Islam University, Kumaracoil from (2012-2013)			
11	Number/List of Conferences/seminar/workshop attended	:	Papers Presented in International Conferences - 05 Papers Presented in National Conferences / Seminar – 18 International / National / Conferences/ Workshops Attended - 07 Number : 30, List in Annexure -1			
12	Number/List of paper published in proceedings	:	Nil			
13	Number /List of paper published in Journals (National/International)	:	Publications in International Journals Number : 15 List in Annexure - 2			
14	Number /List of Books Published	:	Number : 1 List in Annexure - 3			
15	Number/ List of chapters in Books	:	Nil			
16	List of invited Talks	:	Number : 05, List in Annexure - 4			
17	Contributions as Resource Person	:	Number: 01, List in Annexure – 5			
18	List of M.Phil guided/awarded	:	M.Phil : 04 List in Annexure - 6			
19	List of Ph.D guided /awarded	:	<i>Ph.D (Ongoing-01)</i> List in Annexure – 7			
20	UGC -Minor/Major, CICT, other Funding Agencies project completed /ongoing	:	Completed: Nil Ongoing : Nil			

21	Participation in Orientation/Refresher course		Nil
22	Any other relevant information (Co-curricular Activities)	:	NCC 'B' Certificate Youth Red Cross Member in U.G.
23	Membership in professional bodies	:	Life member – Indian Association of Physics Teachers (IAPT). Life Member – Indian Science Congress Association (ISCA). Annual Member – Materials Research Society, Singapore (MRS-S) from 1 July 2012 to 30 June 2013.
24	Editorial positions	:	Details in Annexure -8
25	Any other	:	Honours and Awards Received - 06 Details in Annexure -9 Conference Organized – 02 <i>Details in Annexure - 10</i>

Annexure – 1

Papers Presented in International Conferences-05

- Growth and characterization of 4-Nitrobenzaldehyde single crystal using modified vertical Bridgman technique with nano-resolution
T. Suthan and N.P. Rajesh
The 16th International Conference on Crystal Growth (ICCG-16), Beijing, China during August 8-13, 2010.
- Studies on physical properties of 4-nitrobenzaldehyde single crystal.
T. Suthan and N.P. Rajesh
International Conference on Recent Frontiers in Applied Spectroscopy (ICORFAS-2010), Department of Physics, Annamalai University during September 22-24, 2010.
- Studies on physical properties of organic nonlinear optical material 2-hydroxypyridine single crystal
T. Suthan and N.P. Rajesh
International Conference on Advanced Materials and its Applications (ICAMA-2011), Multifunctional Materials Research Centre, Department of Physics & Department of Chemistry, Kalasalingam University, India, during March 4-5, 2011.
- Growth and Characterization of Organic Material 4-(Benzyloxy)benzaldehyde Single Crystal by Modified Vertical Bridgman Technique with Nano Translation
R. Supraja, R. Kameshwari, **T. Suthan** and N.P. Rajesh
International Conference on Materials for Advanced Technologies (ICMAT-2011), Suntec, Singapore during 26 June to 1 July 2011 (**Received Best Paper Award**).
- Studies on physical properties of organic nonlinear optical material 2-amino-5-chlorobenzophenone single crystal
T. Suthan and N.P. Rajesh
International Conference of Young Researchers on Advanced Materials (ICRAM-2012), Matrix @ Biopolis, Singapore during July 1 – 6, 2012.

Papers Presented in National Conferences / Seminar - 18

1. Crystal growth and characterization of naphthalene single crystals using Bridgman method.
T. Suthan, C.K. Mahadevan and N.P. Rajesh
National Seminar on Crystal Growth of Laser and Non-Linear Optical Materials (NSCGOM - 2008), National College Tiruchirappalli – 620001 during September 25 -26, 2008.
2. Optical and electrical properties of Naphthalene single crystals
T. Suthan, C.K. Mahadevan and N.P. Rajesh
13th National Seminar on Crystal Growth, SSN College of Engineering, Chennai – 603110 during January 27-29, 2009.
3. Optical and electrical properties of Benzil single crystal
T. Suthan, C.K. Mahadevan, N.P. Rajesh and G. Bhagavannarayana
National Conference on Material Science, Department of Chemistry, Annamalai University, Chidambaram – 608002 during October 9-10, 2009.
4. Single crystal growth of benzil using nanoresolution translation by the vertical Bridgman technique and its characterization
T. Suthan, N.P. Rajesh and G. Bhagavannarayana
54th DAE Solid State Physics Symposium – 2009, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat during December 14-18, 2009.
5. Growth and characterization of organic crystals using nano-resolution translation by modified vertical Bridgman technique
T. Suthan and N.P. Rajesh
14th National Seminar on Crystal Growth, VIT University, Vellore – 632 014 during March 10-12, 2010.
6. Growth, optical, thermal, electrical and mechanical properties of 4–nitrobenzaldehyde single crystal using nano translation by modified vertical Bridgman technique
T. Suthan, N.P. Rajesh and C.K. Mahadevan
II National Conference on Advanced Materials-processing, characterization and applications, PSN College of Engineering & Technology, Tirunelveli – 627152 during August 25-27, 2010.
7. Growth and characterization of melt grown 4-nitrobenzaldehyde
T. Suthan and N.P. Rajesh
Crystal Growth and Characterization Conference, Department of Physics, Anna University, Chennai-600025 during October 18-19, 2010.
8. Studies on physical properties of benzil single crystals grown by modified vertical Bridgman technique using nano translation
T. Suthan, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana
XXXIX National Seminar on Crystallography, Post Graduate Department of Physics and Electronics, University of Jammu, Jammu-Tawi during October 25-27, 2010 (**Received Best Poster Presentation Award**).
9. Growth and Characterization of 2-hydroxy-4-methoxybenzophenone single crystal by modified vertical Bridgman technique
T. Suthan, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana.

XV National Seminar on Crystal Growth (With International Participation), PSN College of Engineering & Technology, Melathediyoor, Tirunelveli – 627 152, Tamil Nadu during February 23-25, 2011.

10. Growth and Characterization of organic material 2-hydroxy-4-methoxybenzophenone single crystal by modified vertical Bridgman technique with nano translation
T. Suthan, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana
National Seminar on Recent Trends in Physics, Department of Physics, Shivani Engineering College, Thiruchirapalli – 620009, during March 18-19, 2011 (**Received Best Paper Award**).
11. Growth and characterization of organic material 2-hydroxypyridine single crystal by modified vertical Bridgman technique with nano translation
T. Suthan and N.P. Rajesh
National Conference on Recent Trends in Vibrational Spectroscopy, Bishop Moore College, Mavelikara, Kerala – 690110, during August 26-27, 2011.
12. Growth, optical, thermal and electrical properties Of 4-(Benzyloxy)benzaldehyde single crystal using nano translation by modified vertical Bridgman technique
T. Suthan and N.P. Rajesh
National Seminar on Recent Trends in Synthetic Methods and Chemistry of Natural Products, Department of Chemistry, Annamalai University, Chidambaram during October 14-15, 2011.
13. Growth and characterization of organic material 2-methylamino-5-chlorobenzophenone single crystal by modified vertical Bridgman technique
T. Suthan and N.P. Rajesh
National Conference on Physics of New Materials, Department of Physics, Noorul Islam University, Kumaracoil – 629180, during April 20-21, 2012.
14. Growth and characterization of semiorganic material L-alanine doped zinc tris (thiourea) sulphate single crystals
N. Theanmozhy, I. Viji, **T. Suthan** and N.P. Rajesh
CSIR sponsored National Seminar on Novel Materials, Department of Physics, Shivani Engineering College, Thiruchirapalli – 620009, during March 8, 2013.
15. Studies on Physical Properties of semiorganic material L-alanine doped zinc bis (thiourea) sulphate single crystals
I. Viji, N. Theanmozhy, **T. Suthan** and N.P. Rajesh
CSIR sponsored National Seminar on Novel Materials, Department of Physics, Shivani Engineering College, Thiruchirapalli – 620009, during March 8, 2013.
16. Growth and characterization of organic material 4-Dimethylaminobenzaldehyde single crystals
R.P. Jebin and **T. Suthan**
National Seminar on Recent Trends in Material Science in Research and Technology, Department of Physics, Annai Velankanni College, Tholayavattam – 629157, during October 4 -5, 2013
17. Synthesis and Characterization of Nano Crystalline Zinc Sulphide Luminescent Material by Aqueous Chemical Route Method
N. Theanmozhy and **T. Suthan**
Department of Physics, Annai Velankanni College, Tholayavattam – 629157, during October 4 -5, 2013

18. Growth and Characterization of Organic Material 4-(Diphenylamino)Benzaldehyde Single Crystals
T. Suthan, T. Xavier Oscar Dhas, S.Abraham Thambi Raja, N.P. Rajesh
UGC Sponsored National Conference on Emerging Trends in Applied Physics (NCETAP-2015) in Lekshmipuram College of Arts and Science, Neyyoor – 629802 during 19th and 20th February 2015.

International / National / Conferences/ Workshops Attended - 07

1. National Conference on Luminescence and its Applications (NCLA-2007) Dept of Physics, Bharathiar University, Coimbatore-641046 during January 18-20, 2007.
2. 6th National Conference on Emerging Trends in Crystal Growth and Nanomaterials (NECAN - 2008), Dept of Physics, Layola College Chennai –600034 during February 28-29, 2008.
3. DAE – BRNS Symposium on Atomic, Molecular and Optical Physics, Sponsored by the Board of Research in Nuclear sciences, Department of Atomic Energy, Government of India, Inter University Accelerator centre, New Delhi during February 10-13, 2009.
4. Advanced Level International Workshop on Nanoscience and Technology, Department of Physics, Anna University, Chennai – 600025 during February 23-27, 2009.
5. National Workshop on Theory and Practice of X-ray Diffraction Techniques (TPXRDT - 2009), School of Physics, Alagappa University, Karaikudi – 630003 during July 13-17, 2009.
6. International workshop on Advances in Photonics and Optical Materials, jointly organized by Departments of Physics and Electronics and communication Engineering, SSN College of Engineering, Chennai – 603110, during February 09-11, 2012.
7. INUP Familiarization Workshop on Nano Fabrication Technologies organized by IIT Bombay, Mumbai during November 28-30, 2014.

Annexure – 2

Publications in International Journals

1. **T. Suthan**, N.P. Rajesh, P.V. Dhanaraj and C.K. Mahadevan (2010), Growth and characterization of naphthalene single crystals grown by modified vertical Bridgman method, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 75, No. 1, pp. 69-73.
2. P.V. Dhanaraj, **T. Suthan** and N.P. Rajesh (2010). Synthesis, crystal growth and characterization of a semiorganic material: Calciumdibromide bis(glycine) tetrahydrate *Current Applied Physics*, Vol. 10, No. 5, pp. 1349-1353.
3. **T. Suthan** and N.P. Rajesh (2010). Growth and characterization of organic material 4-nitrobenzaldehyde single crystal using modified vertical Bridgman technique, *Journal of Crystal Growth*, Vol. 312, No. 21, pp. 3156-3160.

4. **T. Suthan**, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana (2011), Growth and Characterization of 2-hydroxy-4-methoxybenzophenone single crystal using modified vertical Bridgman technique, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 78, No. 2, pp. 771-776.
5. **T. Suthan**, P.V. Dhanaraj, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana (2011), Growth and characterization of benzil single crystals using nanotranslation by the modified vertical Bridgman technique, *Crystal Engineering Communication*, Vol. 13, No. 12, pp. 4018-4024.
6. **T. Suthan**, N.P. Rajesh, C.K. Mahadevan and G. Bhagavannarayana (2011), Studies on crystal growth and physical properties of 2-amino-5-chloropyridine single crystal *Materials Chemistry and Physics*. Vol. 129, No. 1-2, pp. 433-438.
7. **T. Suthan**, N.P. Rajesh, C.K. Mahadevan, K. Senthil Kumar and G. Bhagavannarayana (2011), Growth and Characterization of organic material 2-methylamino-5-chlorobenzophenone single crystal by modified vertical Bridgman technique, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 79, No. 5, pp. 1443-1448.
8. **T. Suthan**, N.P. Rajesh, C.K. Mahadevan, D. Sajan and G. Bhagavannarayana (2011), Growth and characterization of organic material 2-hydroxypyridine single crystal by modified vertical Bridgman technique, *Materials Chemistry and Physics*. Vol. 130, No. 3, pp. 915-920.
9. **T. Suthan**, P.V. Dhanaraj and N.P. Rajesh (2012), Growth and characterization of organic material 3-hydroxybenzaldehyde single crystal by modified vertical Bridgman technique, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* Vol. 87, No.1, pp. 194-198.
10. D. Sajan, K. Chaitanya, K. Safakath, Reji Philip, **T. Suthan** and N.P. Rajesh (2013), Three-photon absorption and vibrational spectroscopic study of 2-methylamino-5-chlorobenzophenone, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 106, pp. 253-261.
11. K. Iyakutti, V.J. Surya, G. Britta Mary, **T. Suthan** and Y. Kawazoe (2013), Investigation of Gas Sensing Property of Single Walled Carbon Nanotube, *Asian Journal of Chemistry*, Vol. 25, Supplementary Issue pp. S433-S435.
12. K. Iyakutti, Y. Suba Megila Peares, **T. Suthan** and V.J. Surya (2013), Interaction of Hydrogen, Oxygen and BH₃ with Graphene - A First Principles Study, *Asian Journal of Chemistry*, Vol. 25, Supplementary Issue pp. S436-S438.
13. Lynnette Joseph, D. Sajan, K. Chaitanya, **T. Suthan**, N.P. Rajesh and Jayakumary Isac (2014) Molecular structure, NBO Analysis, Electronic absorption and Vibrational spectral analysis of 2-Hydroxy-4-Methoxybenzophenone: Reassignment of fundamental modes *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 120, No. 24, pp. 216-227.
14. R.P. Jebin, **T. Suthan**, N.P. Rajesh, G. Vinitha and U. Madhusoodhanan (2015), Growth and characterization of organic material 4-dimethylaminobenzaldehyde single crystal, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 135, pp. 959-964.

15. S. Siva Bala Solanki, Rajesh Narayana Perumal, **T. Suthan** and G. Bhagavannarayana (2015), Growth and characterization of organic single crystal benzyl carbamate, *Journal of Crystal Growth*, Vol. 427, pp. 24-28.

Annexure – 3

List of Books Published

- **T. Suthan**, B. Bindhu, P. Libin Raj, R. Geethakumari, Y. Sugirthasuni, Topic: Engineering Physics-II, First Edition 2012, Anuradha Publications, Chennai, ISBN: 978-81-8472-197-3

Annexure – 4

INVITED TALK

1. Development of Bridgman technique for growing organic single crystals
T. Suthan
National seminar on Recent Trends in Material Research and Nanotechnology, Department of Physics, Holy Cross College, Nagercoil – 4, during 4th February, 2012.
2. Fundamentals of Crystal Growth and Characterization Techniques
T. Suthan
National seminar on Recent development in Crystallography and Nanotechnology, Department of Physics, Vivekananda College, Agasteeswaram – 629701, during 2nd March, 2012.
3. Growth and characterization of organic material benzil single crystals by the modified vertical Bridgman technique
T.Suthan and N.P.Rajesh
CSIR sponsored National Seminar on Novel Materials, Department of Physics, Shivani Engineering College, Thiruchirapalli – 620009, during March 8, 2013.
4. Growth and characterization of organic material 3-hydroxybenzaldehyde single crystal by modified vertical Bridgman technique
T. Suthan
National Seminar on Recent Trends in Material Science in Research and Technology, Department of Physics, Annai Velankanni College, Tholayavattam – 629157, during October 4 -5, 2013
5. Indian Scientific Developments and Applications
T.Suthan
Seminar on Recent Trends in Applied Physics, organized by Department of Physics, Vivekanandha College, Agasteeswaram – 629701 during March 3, 2015.

Annexure – 5

Contributions as a Resource Person

- **Chief Guest** for the School Day Celebration at **Sree Vivekanandha Matric. Hr.Sec. School, Kootumangalam, Mondaikadu – 629252, Kanyakumari District** held on 11th January 2014.

Annexure – 6

M.Phil Dissertations Guidance

1. N. Theanmozhy, Enrol. No. 0112420012, July 2013, Noorul Islam University, Kumaracoil. Topic: “Synthesis and Characterization of Nano Crystalline Zinc Sulphide Luminescent Material by aqueous Chemical Route Method”.
2. I. Viji, Enrol. No. 0112420014, July 2013, Noorul Islam University, Kumaracoil. Topic:” Growth and Characterization of Pure and L-Valine doped ZTS Single Crystals”.
3. Y. Suba Megila Peares, Enrolment No. 0112420011, July 2013, Noorul Islam University, Kumaracoil. Topic: “Interaction Of Hydrogen, Oxygen And BH3 With Graphene- A First Principles Study”.
4. G. Britta Mary, Enrol No. 0112420002, July 2013, Noorul Islam University, Kumaracoil. Topic: “Investigation of Gas Sensing Property of Single Walled Carbon Nanotube”.

Annexure – 7

List of Students Enrolled for Ph.D -1

On going

1. Mrs. R.P.Jebin (Reg. No. 0112920201) Noorul Islam University, Kumaracoil, Topic: Growth and characterization of organic NLO single crystals, June 2012

Annexure - 8

Editorial Positions

- Member in the Editorial Board of the Proceedings of BRNS, CSIR Sponsored National Conference on Physics of New Materials (NCPNM-2012) in Noorul Islam University, Kumaracoil (2012).
- Associate Editor of the Proceedings for UGC Sponsored National Conference on Emerging Trends in Applied Physics (NCETAP-2015) in Lekshampuram College of Arts and Science, Neyyoor – 629802 during 19th and 20th February 2015.

Annexure -9

Honours and Awards Received - 06

1. **M.Sc Best Student Award (April 2007)** from Nadar Mahajana Sangam S.Vellaichamy Nadar College, Madurai.
2. **Best Poster Presentation Award** in 39th National Seminar on Crystallography held at University of Jammu, Jammu-Tawi during October 25-27, **2010**.
3. **Best Paper Award** in the “National Seminar on Recent Trends in Physics” held at Shivani Engineering College, Thiruchirapalli – 620009, during March 18-19, **2011**.
4. **Best Researcher Award (2011)** from SSN College of Engineering, Kalavakkam, Chennai.
5. **Best Poster Award** from International Conference on Materials for Advanced Technologies, Suntec, Singapore during June 26 to July 1, **2011**.
6. **DST Travel Fellowship (2012)** to visit Singapore and to present the research paper in International Conference.

Annexure – 10

National Level Conference Organized - 02

- **Organizing Secretary** – BRNS, CSIR Sponsored National Conference on Physics of New Materials (NCPNM-2012) in Noorul Islam University, Kumaracoil (2012).
- **Organizing Secretary** – UGC Sponsored National Conference on Emerging Trends in Applied Physics (NCETAP-2015) in Lekshampuram College of Arts and Science, Neyyoor – 629802 during 19th and 20th February 2015.