SRI SANKARA ARTS & SCIENCE COLLEGE

ENATHUR, KANCHIPURAM

STAFF PROFILE

DEPARTMENT OF PHYSICS

1.	**Name of the Staff**	Dr. P. Vivek
2.	**Designation**	Assistant Professor
3.	**Date of Joining**	05.06.2017
4.	**Mobile Number**	9486948761
5.	**E-Mail ID**	vivekvetri44@gmail.com
6.	**Nationality**	Indian
7.	**Academic Qualification**	M.Sc., B. Ed., Ph. D.,
8.	**Field of Specialization**	General Physics
9.	**Ph.D Thesis Title**	**"INVESTIGATION ON POTENTIAL ORGANIC AND SEMI-ORGANIC SINGLE CRYSTALS FOR NONLINEAR OPTICAL DEVICE APPLICATIONS"**
	Awarding University, Year of Award.	-

10. Work Experience (in chronological order):

S.No.	Name of the Institution	Designation	Period
1.	SVIST	Assistant Professor	26.05.2015 to 11.12.2015
2.	SAEI	Assistant Professor	12.12.2015 to 04.06.2017
3.	Sri Sankara Arts and Science College (Autonomous), Enathur, Kanchipuram	Assistant Professor	05.06.2017 to till date

11. Other Academic and Administrative Responsibilities:

S.No.	Name of the Institution/Committee	Position	Period
1.	Sri Sankara Arts and Science College (Autonomous), Enathur, Kanchipuram	Albert Einstein Physics Forum coordinator	2017 to 2018
2.	Sri Sankara Arts and Science College (Autonomous), Enathur, Kanchipuram	Board of studies member – UG & PG	2017 to till date

12. Publications:

NATIONAL/INTERNATIONAL PUBLICATION : 37

Total reads : 2329

Citations : 311

Researchgate Score : 22.22

h – Index : 10

i10 – Index (Excluding self citation): 10

LIST OF PUBLICATIONS

S.No.	Journal Name with Publishers	No. of articles	Impact factor
1	**RSC Advances –** Royal Society of Chemistry	2	3.289
2	**Journal of Crystal Growth -** Elsevier	2	1.573
	New Journal of Chemistry– Royal Society of Chemistry	1	3.201

3	**Applied Physics A -** Springer Nature	3	1.784
4	**Optics and Laser Technology –** Elsevier	2	3.319
5	**Spectrochimica Acta Part A-** Elsevier	4	2.931
6	**Journal of thermal analysis and calorimetry -** Springer Nature	1	2.471
7	**Optik –** Elsevier	5	1.914
8	**Journal of Materials Science: Materials in Electronics -** Springer Nature	3	2.195
9	**Journal of Optics -** Springer Nature	3	1.740
10	**Chinese Journal of Physics -** Elsevier	1	2.544
11	**Journal of Nano- and Electronic Physics -** Sumy State University	1	-
12	**Advanced Materials Research –** Trans Tech Publication	1	-
13	**International Journal of Chem Tech Research**	2	-
14	**Crystal growth and Computational materials Science -** Macmillan	1	-
15	**Proceedings of National Laser Symposium**	2	-
16	**ICAM- 2012 proceedings**	1	-
17	**AIP proceedings**	1	-
18	**Tamil Research article**	2	

Total no. of Publications 37

YEAR WISE LIST OF PUBLICATIONS

2011

1. **P. Vivek**, P. Murugakoothan, A New Organic NLO L-Asparaginium L-Tartrate (AST) Single Crystal Growth, Structural, Optical, Dielectric and Mechanical Properties, Crystal growth and Computational materials Science (ICAM- 2011 proceedings), Macmillan Advanced Research Series (2011) 160- 165.

2012

2. **P. Vivek**, P. Murugakoothan, Synthesis and nucleation studies of an organic NLO material: L-argininium diphenyl acetate, (ICAM- 2012 proceedings) (2012) 308-313.

3. **P. Vivek**, P. Murugakoothan, Optical and mechanical studies on Methyl N- phenylsuccinamate (MPS), Advanced Materials Research 584 (2012) 51-55.

2013

4. **P. Vivek**, P. Murugakoothan, Linear and nonlinear optical properties of a new organic NLO L-asparaginium L-tartrate (AST) single crystal, Optik 124 (2013) 3510– 3513.

5. **P. Vivek**, P. Murugakoothan, Growth and anisotropic studies on potential nonlinear optical crystal imidazole–imidazolium picrate monohydrate (IIP) in different orientations for NLO device fabrications, Opt. Laser Technol. 49 (2013) 288–295.

6. A. Suvitha, **P. Vivek**, P. Murugakoothan, Nucleation kinetics, growth and characterization of guanidinium 3-nitrobenzoate single crystal, Optik, 124 (2013) 3534– 3538.

2014

7. **P. Vivek**, P. Murugakoothan, Optical studies on L-argininium diphenylacetate for Nonlinear Optical applications, Proceedings of National Laser Symposium (NLS-22) 2014.

8. **P. Vivek**, P. Murugakoothan, Second- and third-order optical studies of 4-Bromoanilinium hydrogen phthalate single crystal for nonlinear optical device applications, Appl. Phys. A, 115 (2014) 1139–1146.

9. **P. Vivek**, P. Murugakoothan, Fabrication of optical element from unidirectional grown imidazole–imidazolium picratemonohydrate(IIP) organic crystals for nonlinear optical applications, Opt. Laser Technol. 64 (2014) 113–119.

10. **P. Vivek**, P. Murugakoothan, Third order optical studies on Sankaranarayanan–Ramasamy method grown Imidazole–Imidazolium Picrate monohydrate (IIP) organic crystals for Nonlinear optical applications, International Journal of Chem Tech Research, 6, No.3 (2014) 1567-1570.

11. G. Saravana Kumar, **P. Vivek**, P. Murugakoothan, Synthesis, Structural, Spectral, Linear and Nonlinear optical properties, Laser damage threshold and Thermal studies of Gamma-Glycine from a new additive, International Journal of Chem Tech Research, 6, No.3 (2014) 1548-1551.

12. S. Ananth, **P. Vivek**, T. Arumanayagam, P. Murugakoothan, Natural dye extract of lawsonia inermis seed as photosensitizer for titanium dioxide based dye-sensitized solar cells, Spectrochimica Acta Part A, 128 (2014) 420–426.

13. A. Suvitha, **P. Vivek**, P. Murugakoothan, Growth and Physical Properties of an organic Crystal for NLO applications: Guanidinium Phenyl Arsonate (GPA), Optik 125 (2014) 141– 145.

14. S. Ananth, T. Arumanayagam, **P. Vivek**, P. Murugakoothan, Direct synthesis of Natural dye mixed Titanium dioxide nanoparticles by Sol-Gel method for Dye Sensitized Solar Cell applications, Optik 125 (2014) 495– 498.

15. P. Murugakoothan, S. Ananth, **P. Vivek**, T. Arumanayagam, Natural Dye Extracts of Areca Catechu Nut as dye Sensitizer for Titanium dioxide Based Dye Sensitized Solar Cells, journal of nano- and electronic physics, 6 No 1(2014) 01003(4pp).

2015

16. **P. Vivek**, P. Murugakoothan, Laser Damage Threshold and Nonlinear Optical Studies On Guanidinium L - monohydrogen Tartrate (GuHT) Single Crystal For NLO Device Applications, AIP Conf. Proc. 1665, 100005-1–100005-3 (2015).

17. **P. Vivek**, P. Murugakoothan, Laser damage threshold studies on bisguanidinium hydrogen phosphate monohydrate single crystal for Nonlinear Optical applications, NLS-23 proceedings (2014).

18. **P. Vivek**, P. Murugakoothan, Growth, Spectral, Anisotropic, Second and third order nonlinear optical studies on Potential Nonlinear Optical Crystal anilinium perchlorate (AP) for NLO Device fabrications, Spectrochimica Acta, 134 (2015) 517–525.

19. S. Ananth, **P. Vivek**, G. Saravana Kumar, P. Murugakoothan, Performance of Caesalpinia Sappan heartwood extract as photo sensitizer for dye sensitized solar cells, Spectrochimica Acta, 137 (2015) 345-350.

20. **P. Vivek**, P. Murugakoothan, Synthesis, growth, optimization, bulk SR method growth, fabrication of indigenous optical element and anisotropic studies on guanidinium l - monohydrogen tartrate (GuHT) single crystal for nonlinear optical device applications, Journal of Crystal Growth, 412 (2015) 40-48.

21. S. Ananth, **P. Vivek,** T. Arumanayagam, P. Murugakoothan Pre dye treated titanium dioxide nanoparticles synthesized by modified sol – gel method for efficient dye sensitized solar cells, Appl. Phys. A (2015) 119:989-995.

22. S Ananth**; P Vivek**; T. Solaiyammal; P Murugakoothan, Pre dye treated titanium dioxide nano particles sensitized by natural dye extracts of pterocarpus marsupium for dye sensitized solar cells, Optik, 126 (2015) 1027–1031.

23. G. Saravanakumar, **P. Vivek**, P. Murugakoothan, A combined experimental and quantum chemical analysis to explore the nonlinear optical activity of guanidinium L-monohydrogen tartrate, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 145 (2015) 417–424.

24. S. Ananth, T. Arumanayagam, **P. Vivek**, P. Murugakoothan, Enhanced photovoltaic behavior of dye sensitized solar cells fabricated using pre dye treated titanium dioxide nanoparticles J Mater Sci: Mater Electron DOI 10.1007/s10854-015-3730-8.

2016

25. RO. MU. Jauhar, **P. Vivek**, S. Sudhakar, S. Kalainathan, M. Nizommohideen, P. Murugakoothan, Self assembled supramolecular synthons of 2,6 diaminopyridinium tosylate: Synthesis, growth and its properties, Journal of Thermal Analysis and Calorimetry, DOI 10.1007/s10973-015-5182-z.

26. RO. MU. Jauhar, V. Viswanathan, **P. Vivek**, G. Vinitha, D. Velmurugan and P. Murugakoothan, A new organic NLO material isonicotinamidium picrate (ISPA): crystal structure, structural modeling and its physico-chemical properties, RSC Adv., 2016, 6, 57977.

2017

27. **P. Vivek**, RO. MU. Jauhar, P. Murugakoothan, Development of optical element on bulk bisguanidinium hydrogen phosphate monohydrate single crystal for nonlinear optical device applications, Journal of Optics (article in press) 2017.

28. S. Muniyappan, T. Solaiyammal, B. Gomathi thanga keerthana, **P. Vivek,** P. Murugakoothan, Influence of annealing temperature on structural, morphological and optical properties of CTAB assisted cadmium sulphide (CdS) quantum dots: Promising candidate for quantum dot sensitized solar cell (QDSSC) applications, J Mater Sci: Mater Electron (accepted) 2017.

29. RO. MU. Jauhar, Mudasir H. Dar, **P. Vivek**, D. Narayana Rao, P Murugakoothan Investigations on the growth, linear, nonlinear, dielectric tensor and thermal

properties of an acidic molecule: diphenylacetic acid single crystal, Journal of Optics (article in press) 2017.

2018

30. **P. Vivek**, RO. MU. Jauhar, A. Suvitha, Paavai. Era, S. Ananth & P. Murugakoothan, Habitual growth and its influence on the properties of anilinium perchlorate (AP) single crystal for nonlinear optical device applications, Journal of Materials Science: Materials in Electronics, 2018, doi.org/10.1007/s10854-018-8542-1.

31. RO. MU. Jauhar, Paavai Era, V. Viswanathan, **P. Vivek**, G. Vinitha, Velmurugan D. and P. Murugakoothan, Crystal structure, molecular packing, FMO, NBO, nonlinear optical and optical limiting properties of an organic imidazolium diphenylacetate diphenylacetic acid single crystal, New J.Chem., 2018, 42, 2439.

32. R. Arunkumar, D. Benny Anburaj, **P. Vivek**, RO. MU. Jauhar, R. K. Balachandar, S. Ananth and P. Murugakoothan, Synthesis, growth, frontier molecular orbitals,fracture mechanics and nonlinear optical studies of l-serine methyl ester hydrochloride single crystal, Journal of Optics (article in press) 2018.

33. K. Sudhakar, S. Nandhini, S. Muniyappan, T. Arumanayagam, **P. Vivek**, P. Murugakoothan, Synthesis, crystal growth, optical, thermal, and mechanical properties of a nonlinear optical single crystal: ammonium sulfate hydrogen sulphamate (ASHS), Applied Physics A (2018) 124:334.

34. RO.MU. Jauhara, Viswanathan, Paavai. Era, **P. Vivek**, G. Vinitha, P. Murugakoothan, Crystal engineering, structural and optical properties of 2-aminopyridinium diphenylacetate diphenylacetic acid crystal, Journal of Crystal Growth 498 (2018) 115–123

2019

35. M. Rekha, M. Kowsalya, S. Ananth, **P. Vivek** and RO. MU. Jauhar, Current-voltage characteristics of new organic natural dye extracted from Terminalia chebula for dye – sensitized solar cell application, Journal of Optics (article in press) 2019

36. Tamil Research Article
37. RO. MU.Jauhar, Paavai.Era, P.Vivek, G.Vinitha, Synthesis, structural, frontier molecular orbitals, Hirshfeld analysis and luminescence properties of an organic 2-amino-4, 6-dimethoxypyrimidine 4-methylbenzenesulfonic acid monohydrate single crystal, Chinese Journal of Physics, (accepted) 2019

13. Awards / Distinction :

BEST PAPER AWARDS

- ✓ "CRYSTAL GROWTH AND CHARACTERISATION OF GUANIDINIUM CHLOROCHROMATE SINGLE CRYSTAL"
  A. Suvitha, **P.Vivek**, P. Murugakoothan
  in 24TH NATIONAL SEMINAR ON CRYSTAL GROWTH" held at Crystal Growth Centre, Anna University, Chennai during 20 – 22 December, 2012.

- ✓ "SYNTHESIS AND NUCLEATION STUDIES OF AN ORGANIC NLO MATERIAL: IMIDAZOLE–IMIDAZOLIUM PICRATE MONOHYDRATE (IIP)"
  P.Vivek, P. Murugakoothan

in "NATIONAL CONFERENCE ON HIERARCHICALLY STRUCTURED MATERIALS", held at SRM University, Ramapuram, Chennai - 89 during January 24-25, 2013.

- ✓ "FABRICATION OF OPTICAL ELEMENT FROM SR METHOD GROWN IMIDAZOLE–IMIDAZOLIUM PICRATE MONOHYDRATE (IIP) ORGANIC CRYSTALS FOR NONLINEAR OPTICAL APPLICATIONS"
  P.Vivek, P. Murugakoothan
  "XVIII NSCG – 2014 - XVIII National Seminar on Crystal Growth" on 24 – 26 February, 2014 organized by Centre for Crystal Growth. SSN College of Engineering, Chennai- 603 110.

14. Membership in Professional Bodies:

S.No.	Name of the Membership	Venue	Period
1.	Board of studies member – B.Sc Physics & M.Sc Physics	Sri Sankara Arts and Science College (Autonomous), Enathur, Kanchipuram.	2017 to till date
2.	Life member	Indian Association for Crystal Growth	2010 to till date
3.	Life member	Indian Laser Association	2013 to till date

15. Seminars Conferences organized /Participation:

- Presented Paper in "National Conference on Recent Trends in Physics of Materials", NCRTPM-2018 on 9,10 February 2018 organized by Pachaiyappa's College, Chennai.
- Participated in national Conference on "Towards Achieving Excellence in Higher Education" on 15th December, 2017 organized by IQAC, Sri Sankara Arts and Science College, Kanchipuram
- Presented Paper in "National Conference on Recent Trends in Physics of Materials", NCRTPM-2015 on 28 February 2015 organized by Pachaiyappa's College, Chennai.
- Presented Paper in "National Conference on Materials Science & Technology", MSAT-2015 on 4 - 6 February 2015 organized by Bishop Moore College, Mavelikara, Kerala.
- Presented Paper in "59th DAE Solid State Physics Symposium", on 16 - 20 December 2014 organized by VIT University, Vellore.
- Presented Paper in "DAE – BRNS National Laser Symposium", NLS-23 on 3 - 6 December 2014 organized by Sri Venkateswara University, Tirupati.

- Presented Paper in "International Conference on Materials and Characterization Techniques", ICMCT-2014 on 10 - 12 March 2014 organized by VIT University, Vellore.

- Presented Paper in "XVIII NSCG – 2014 - XVIII National Seminar on Crystal Growth" on 24 – 26 February, 2014 organized by Centre for Crystal Growth. SSN College of Engineering, Chennai- 603 110.

- Presented Paper in "NLS – 22 - National Laser Symposium" -22 on 8-11 January 2014 organized by Manipal University, Manipal.

- Participated in "NRB Research Dissemination Workshop on Titanium Matrix Composites" on 30th August 2013 at Department of Metallurgical and Materials Engineering, Indian Institute of Technology, Chennai – 600 036.

- Presented Paper in "NATIONAL CONFERENCE ON RECENT TRENDS IN MATERIALS SCIENCE & TECHNOLOGY", held at Department of Chemistry, Indian Institute of Space Science and Technology, Government of India, Department of Space, Valiamala, Thiruvananthapuram during July 10 - 12, 2013.

- Presented Paper in "NATIONAL CONFERENCE ON HIERARCHICALLY STRUCTURED MATERIALS", held at SRM University, Ramapuram, Chennai - 89 during January 24-25, 2013.

- Presented Paper in "XVII NATIONAL SEMINAR ON CRYSTAL GROWTH", held at Department of Physics, Anna University, Chennai- 600 025 during January 9-11, 2013.

- Presented Paper in "24th NATIONAL SEMINAR ON CRYSTAL GROWTH" held at Crystal Growth Centre, Anna University, Chennai during 20 – 22 December, 2012.

- Participated in "INTERNATIONAL WORKSHOP ON CRYSTAL GROWTH AND CHARACTERIZATION OF ADVANCED MATERIALS AND DEVICES" held at Crystal Growth Centre, Anna University, Chennai during 16 –19 December, 2012.

- Presented Paper in "NATIONAL SEMINAR ON ADVANCED MATERIALS : PROCESSING AND APPLICATIONS" held at Department of Physics, School of Physical Sciences, Bharathiar University, Coimbatore – 641 046 during 29–39 March, 2012.

- Presented Paper in "INTERNATIONAL CONFERENCE ON RECENT TRENDS IN ADVANCED MATERIALS" held at School of Advanced Sciences, VIT University, Vellore during 20 –22 February, 2012.

- Presented Paper in "XVI NATIONAL SEMINAR ON CRYSTAL GROWTH", held at Department of Physics, Aditanar College of Arts and Science, Tiruchendur- 628 216 during January 19-21, 2012.

- Presented Paper in "ADVANCED MATERIALS ICAM 2012" held at Department of Physics, Loyola College, Chennai – 600 034 during 5 –7 January, 2012.

- Presented Paper in "NATIONAL SEMINAR ON ADVANCED MATERIALS" held at Department of Physics, PSG College of Technology, Coimbatore – 641 004 during 12-16 December, 2012.

- Participated in "XV NATIONAL SEMINAR ON CRYSTAL GROWTH", held at Centre for Scientific and Applied Research, PSN College of Engineering and Technology, Tiruchendur- 627 152 during February 23-25, 2011.

- Participated in "RAMADURAI ENDOWMENT SEMINAR ON 50 YEARS OF LASERS", held at Department of Physics, RKM Vivekananda College, Chennai – 600 004 during February 19, 2011.

- Participated in "FRONTIERS IN MATERIALS SCIENCE, WORKSHOP SPONSORED BY ROYAL SOCIETY OF CHEMISTRY-SOUTH INDIA", held at Department of Physics, RKM Vivekananda College, Chennai – 600 004 during February 11, 2011.

- Participated in "LASER TECHNOLOGY AND ITS APPLICATIONS", held at Department of Physics, School of Science and humanities, B. S. Abdur Rahman University, Vandalur, Chennai – 600 048 during March 15, 2011.

- Presented Paper in "NATIONAL SEMINAR ON RECENT ADVANCEMENTS IN MATERIALS & ENERGY", held at Department of Physics, Voorhees College, Vellore – 632 001 during March 5-7, 2009.

16. Participated as Resource Person:

S.No.	Program	Venue	Period
1.	**Delivered a invited talk on 8/9/18 in National Workshop on Materials Discovery and Design organized by**	**SriRam College of Arts and Science, Veppampattu Thirvallur.**	**8/9/18**

17. Workshop &Training Programmes:

S.No.	Programme	Venue	Period
1.	Faculty development workshop on **'New Methodology in teaching'.**	Sri Sankara Arts and Science College, Enathur, Kanchipuram.	October 5 2017
2.	Faculty development workshop on **'Digital Learning Resources'.**	Sri Sankara Arts and Science College, Enathur, Kanchipuram.	February 2,2018
3.	International Workshop on **'Materials Technology and Applications'.**	VIT, Vellore	October 11-12, 2018
4.	Workshop on **'Embedded system & Interfacing Hands-on'** E & ICT Academy, Indian Institute of Technology, Kanpur	Sri Sankara Arts and Science College, Enathur, Kanchipuram	June 10-14, 2019
5.	Workshop on **'Python Programming with Industry Perspective'** E & ICT Academy, Indian Institute of Technology, Kanpur	Sri Sankara Arts and Science College, Enathur, Kanchipuram.	Dec 2 – 6, 2019

6.	Workshop on **'VLSI Chip Design Hands-on using open source EDA Tools'** E & ICT Academy, Indian Institute of Technology, Kanpur	Sri Sankara Arts and Science College, Enathur, Kanchipuram	Dec 16 – 20, 2019

18. Projects Completed:

S.No.	Name of the Projects	Period	Grant Received/Status
	NIL		

19. Any other Details: NIL