Profile of Dr.J.Shanthi

Designation : Professor

Qualification : M.Sc, Mphil, Ph.D.,

Experience : 33 years

Specialization : Thin Films & Crystal Growth

Email.id : shanthinelson@gmail.com

Research Supervision:

Name of the Institution	Research Guidance (Degree Awarded) No. of Candidates			
	M. Phil		Ph. D	
	Completed	Ongoing	Completed	Ongoing
Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	19	Nil	9	2

Research Scholars Details:

S/No	Name	FT/PT	Title of the Thesis	Field of Specialization	Month and Year (Ph. D Degree Awarded)
1	Sivamalar.S	PT	Comparison studies of thermally evaporated PbPc and CuPc thin films	Thin films	March 2014
2	Deepthi P.R	PT	Growth and Characterization of some doped TGS crystals	Crystal Growth	September 2015
3	Gandhimathi P	PT	Growth and Characterization of $LiNO_3$, $Ba(NO_3)_2$ doped L-Cysteine,	Crystal Growth	January 2016

			L-Alanine Crystals by slow evaporation method		
4	Sheelarani V	FT	Growth and Characterization of Succinic acid and Nicotinic acid based non linear optical crystals	Crystal Growth	February 2017
5	Rani R	PT	Studies on electron beam evaporated undoped, In and Zn Doped CdSc thin films for Photo electrochemical solar cell device	Thin films	August 2017
6	Aishwarya.S	FT	Self Cleaning Performance of Polymer Silane Hydrophobic Thin Films	Thin Films	October 2020
7	Seifunnisha. O	FT	Influence of Plant Extracts and Surfactants on ZnO for the Applications of Photocatalytic, Antimicrobial and Non-Wettable Activities	Thin Films	February 2022
8	Swathi. R	FT	Surfactant Templated Silica Surfaces as UV, Scratch, and Dust Resistant Antireflective Coating for Improved Solar Cell Performance	Thin Films	March 2023
9	Cathelene Antonette L	FT	Photodegradation, Anti-bacterial and Self-cleaning Analysis of Surface Modified Zinc Oxide and its Composites for Environmental	Thin Films	July 2025

			Remediation		

Ongoing Research Scholars Details:

S/No	Name	FT/PT	Field of Specialization	Year of Joining
1	Chandralekha N.R	FT	Thin Films	August 2021
2	Vinisha C	FT	Thin Films	August 2024

Seminars/Conferences/Workshops organized: 3/ 3 / 13

Seminars/Conferences/Workshops attended : 33

Visits abroad: Dubai, Malaysia

IMF Coordinator (2011 to 2018), Head of the department (2013 August to 2018 July & currently from March 2022)

Life Member in

- Indian Association for crystal growth
- Materials Research Society of India
- Indian Laser association
- Indian Association of Physics Teacher
- Acoustical Society of India
- International association for Computer science and Information Technology

Publication: 2016-2024

S. No	Paper Details	ISSN No	Impact Factor
1	**P.R.Deepthi, J.Shanthi ,** Optical, dielectric & ferroelectric studies on amino acids doped TGS single crystals, **RSC Advances,** Vol 6, Pp 33686–33694, March 2016	2046-2069	3.119 (Thomson Reuters)
2	**V. Sheelarani, J.Shanthi,** Thermal and Optical studies of NLO active single crystal: Nicotinic L-tartaric**, Optik-International Journal for Light and**	0030-4026	2.187

	Electron Optics, Vol 127, Pp 2946-2949, March 2016		(Thomson Reuters)
3	**S Rani, J Shanthi, M Kashif, A Ayeshamariam, M Jayachandran,** Studies on different doped Zn concentrations of CdSe Thin Films, **Journal of Powder Metallurgy and Mining,**Vol 5, Pp 1-7, July 2017	2168-9806	1.619
4	**S.Sugi, P U Rajalakshmi, J.Shanthi**, Photocatalytic Degradation efficiency of Cu X Zn 1-X O Composit**, Optik-International Journal for Light and Electron Optics,** Vol 131, Pp 406413, 2017	0030-4026	2.187 (Thomson Reuters)
5	**P.R.Deepthi, Anu Sukhdeva, P.Mohan Kumara, V.Jagadeesha Angadia, U. Mahaboob Pasha, J.Shanthi,** Structural,FTIR and Ferro electric analysis of pure TGS and L-Cysteine doped TGS crystals for Infrared device applications, **Chemical Data Collections,** Vol 17, Pp 276-286, Sep 2018	0973-1458	0.94
6	**P.R Deepthi, A. Sukhdev, P.M Kumar, J Shanthi, B.N Pavithra, B.C Hemaraju,** Inclusion of an anionic dye in the molecular structure of potassiumdihydrogen phosphate crystal for SSDL applications, **Indian Journal of Physics,** Vol 92, Feb 2019	2405-8300	1.407 (Thomson Reuters)
7	**S.Aishwarya, J.Shanthi,** Spin Coated Polymer Composite Hydrophobic Surfaces with Self-Cleaning Performance, **Materials Research Express,** Vol 6, Pp 1-10, April 2019.	2053-1591	1.929 (Thomson Reuters)
8	**J.Shanthi, S.Aishwarya, R.Swathi,** Surface Energy Calculation using Hamaker's Constant for Polymer/Silane Hydrophobic Thin films, **Materials Letters,** Vol 253, Pp 409-411, July 2019.	0167-577X	3.019 (Thomson Reuters)
9	**O.Seifunnisha, J.Shanthi**, Aloe vera mediated green synthesis of ZnO nanostructure under Sol-gel method: Effect of Antimicrobial activity**, Journal of Nano and Electronic Physics**, Vol.	2077-6772	0.676

	12, 1-5. April 2020.		
10	**J.Shanthi, O.Seifunnisha, R.Swathi**,Non-Wettable antibacterial thin film:PS/Aloe vera and PS/Acalypha indica**, Polymers and Polymer Composites**, April 2020.	0967-3911	1.023
11	**J.Shanthi, S.Aishwarya, R.Swathi,** Enhanced optical & structural properties by potassium iodide doping on spin coated TiO2 thin films, **Chemical Data Collection**, Vol 29, Pp 100494 (1-7), July 2020.	0973-1458	0.94
12	**P. R. Deepthi, Anu Sukhdev, Mohan Kumar, J. Shanthi, B. C. Hemaraju**, Growth and impedance analysis of pure TGAc and dye doped TGAc crystals-enhanced dielectric permittivity for energy-storage devices, **SN Applied Sciences**, 2:1493, August 2020.	2523-3971	2.11
13	**R.Swathi, J.Shanthi, K.K. Anoop,** Superhydrophilic TEOS/PF-127 based antireflection coating for solar and optical applications, **Optical materials,** 118, 111246, August 2021.	0925-3467	3.754
14	**O.Seifunnisha, J.Shanthi**, Influence of Aloe vera and PEG on the Evaluation of Photocatalytic degradation MG dye under UV light and Visible light irradiation by ZnO nanomaterials, Optik (International Journal for Light and Electron Optics). Vol. 248, 168064 (1-13), September 2021.	0030-4026	2.84
15	**P R Deepthi, A Sukhdev, P Mohan Kumar, G Chaithra, M Challa, S P Prashanth, J Shanthi**, Crystal violet doped triglycine acetate crystal: a potential material for optoelectronic applications, **Indian Journal of Physics**, 96(11):3277–3287, October 2021.	09731458, 09749845	1.778
16	**G.Chaithra, P.R.Deepthi, Malathi Challa,Anu Sukhdev, Mohan Kumar, J. Shanthi,** Optical and Thermal Properties of Acid Red Doped Triglycine Acetate Crystal for Optoelectronic Applications, **Crystal Research &**	1521-4079	1.639

	Technology, Vol 57(2), 2100130, Feburary 2022.		
17	**C. P. Sahana, P. R. Deepthi, P. Mohan Kumar, Anu Sukhdev, Malathi Challa, Pradeep Bhaskar, J. Shanthi,** Dye doped sulphamic acid crystals: a potential material for optoelectronic applications, **J Mater Sci: Mater Electron**, 33:11184–11193, March 2022.	0957-4522	2.779
18	**Sahana C.P, P. R. Deepthi, P. Mohan Kumar, Anu Sukhdev, Malathi Challa, J. Shanthi,** Methyl Orange Doped Sulphamic Acid Single Crystals: Growth, Optical and Thermal Properties for Optoelectronic Applications, **Brazilian Journal of Physics**, 52: 98, April 2022.	0103-9733	1.364
19	**J.Shanthi, R.Swathi, O.Seifunnisha,** Self-Cleaning Antireflection Coatings on Glass for Solar Energy Applications. **In book: Artificial Intelligence, Internet of Things (IoT) and Smart Materials for Energy Applications.** August 2022.	DOI: 10.1201/9781003220176-18	-
20	**J. Shanthi, O. Seifunnisha, R. Swathi,** Bioactive antimicrobial nanosystems Enhancement of antimicrobial performance of Acalypha indica based ZnO nanomaterials and nonwettable activity. In book : Antimicrobial Nanosystems, 2023	, https://doi.org/10.1016/B978-0-323-91156-6.00001-4	-
20	**Ramakrishnan Swathi, Jayaraj Shanthi, Subramaniam Aishwarya, Kiliyanamkandy Anoop**, Photon management by scratch-resistant antireflection coating for the efficiency enhancement of silicon solar cell, **International Journal of Energy Research**, Vol 46 (11), Pages 15485-15498. September 2022.	1099-114X	5.164
21	**L. Cathelene Antonette, J. Shanthi,** Spin-coated transparent hydrophobic, self-cleaning surfaces using PDMS, iTES with PF-127, Environmental quality management, Vol 33, 379-387, 2023.	1088-1913	1.5

22	**L. Cathelene Antonette, J. Shanthi,** Degradation of methylene blue using Methyltrimethoxysilane doped SnO nanoparticles and inactivation of gram (+ve) and (-ve) bacteria, Results in chemistry, Vol 6, 100998, 2023.	2211-7156	2.5
23	**L. Cathelene Antonette, J. Shanthi, N. R Chandralekha,** Enhanced photodegradation of textile dye wastewater using Silane/Polymer doped ZnO nanocomposites and antibacterial activity, Journal of the Indian Chemical Society, Vol 101, 101254, 2024	0019−4522	3.2
24	**N. R Chandralekha, J. Shanthi, L. Cathelene Antonette, K.K Anoop,** Improved Efficiency of Solar cell using Silane based SnO_2 Thin Films with Self-Cleaning and Antifogging Properties, Silicon, Vol, 16, 5121-5134, 2024	1876-990X	3.3
25	**N. R Chandralekha, J. Shanthi, R. Swathi, K.K Anoop,** Enhanced optical performance of solar cell using hydrophobic SnO_2/TEOS/MTMS antireflection coating, Vol43, e14436, 2024	1944-7442	2.3