



Dr. S. SUDHAHAR
ASSISTANT PROFESSOR (Level 11)

Contact

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Academic Qualifications

Degree	Institution	Year	Branch	Class
Ph.D.	University of Madras	2014	Physics	Highly Commended
M.Ed.,	University of Madras	2010	Education	I-Class
B.Ed.,	Tamilnadu Teacher's Education University	2009	Physical Science	I-Class
M.Sc.,	Bharathidasan University	2008	Physics	I-Class
B.Sc.,	Bharathidasan University	2006	Physics	I-Class

Teaching Experience

Total Teaching Experience : 8 Years

Position	Institution	Duration
Assistant Professor	Alagappa University	2015-Till Date

PDF/ Visiting Professor: Abroad

Position	Institution	Duration
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Research Experience

Total Research Experience : 13Years

Position	Institution / University	Duration
Assistant Professor	Alagappa University	2015-Till Date
Research Scholar	Presidency College, Chennai-05	2010 - 2014

Academic and Additional Responsibilities

S.No	Position	UniversityBodies	Period	
			From	To
1.	Co-Ordinator	Rotary Club	2019	Till Date
2	Deputy Co-Ordinator	Swachh Bharath	2018	Till Date

3.	Co-Ordinator	Dept. NSS	2016	Till Date
4.	Co-Ordinator	Dept. Student Welfare	2016	Till Date
5.	Co-Ordinator	Dept. Cultural Club	2022	Till Date
6.	VPP coordinator	Kanadukathan Village, 2019	2019	2019
7.	Co-ordinator	Dept. Vivekananda Cadet Corps	2016	Till Date
8.	Question paper setter	In various Colleges and Universities for UG/PG programme	2016	2024

Areas of Research

- **Crystal Growth (Nonlinear and Ferroelectric Materials)**
- **Thin Films and**
- **Nanomaterials (Supercapacitor and Biomedical applications)**

Patents Filed

- **NIL**

Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	PDF	---	---
	Ph.D	04	04
	M.Phil	11	--
	PG	36	06

Project	UG/ Others	---	
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Ph.D Completed: 04

Department of Physics, Alagappa University, Karaikudi-630003			Awarded
S. No.	Students Name	Title of the Thesis	
01	G. PARVATHY (R20161810)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 5-chloro-2-hydroxybenzoic acid derivative single crystals for nonlinear optical applications.	13 th April 2022
02	R. KALIAMMAL (R20161943)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 2-amino-6-methylpyridine derivative single crystals for nonlinear optical applications.	17 th June 2022
03	K. VELSANKAR (R20162024)	A comprehensive exploration on green synthesized metal oxide nanoparticles using panicoidae (edible grass-millet crops) subfamily grains extract for emerging biological applications.	15 th September 2022
04	G. MAHESHWARAN (R20162343)	Investigation on two dimensional layered bismuthene nanosheets and its composites for supercapacitor applications.	20 th January 2023

M.Phil Completed: 11

Department of Physics, Alagappa University, Karaikudi-630003			Awarded
S. No.	Students Name	Title of the Thesis	
01	R. ERNEST AMALA (R2016581005)	Crystal growth and characterization of 2-aminopyridinium salicylate organic nonlinear optical single crystal	July 2017
02	A. SAVARI RAJEEV (R2016581014)	Synthesis, growth and characterization of 2-amino 6-methylpyridinium 6-aminocaproate nonlinear optical single crystal	July 2017
03	U. KARUPPASAMY (R2016582008)	Synthesis, growth and characterization of 8-hydroxyquinolinium 6-aminocaproate organic nonlinear optical single crystal	October 2017
04	S. SHARAVANAN (R2016582017)	Synthesis, growth and characterization of 8-hydroxyquinolinium salicylate organic nonlinear optical single crystal	October 2017
05	R. ARCHANA (R2017581002)	Growth and characterization of 8-hydroxyquinolinium 3,4-dimethoxybenzoate and p-toluidinium picrate organic single crystals	July 2018

		for nonlinear optical applications	
06	J. SAHAYA MELBA (R2017581009)	Synthesis, growth and characterization of 2-amino-6-methylpyridinium 5-chlorosalicylate and l-alaninium 5-chlorosalicylate organic nonlinear optical single crystals	July 2018
07	B. BHUVANA MARIDHASAN (R2017582003)	Synthesis, growth and non-linear optical properties of 2-amino 6-methylpyridinium 3,4-dimethoxybenzoate single crystal	April 2019
08	R. MUTHU KARUPPASAMY (R2017582013)	Growth and structural, spectral, optical, thermal properties of l-alaninium 3,5-dinitrobenzoate NLO single crystal	April 2019
09	S. SUMATHY (R2017582018)	Synthesis, growth and characterization of l-alaninium p-hydroxybenzoate non-linear optical single crystal	April 2019
10	G. MAHESHWARAN (R2018581002)	Mechanical, thermal and optical properties of piperazinium orthophthalate non-centrosymmetric single crystal	August 2019
11	V. VINOTHINI (R2019581009)	Green synthesis of silver nanoparticles using zephyranthes candida flower extract for biomedical application	June 2020

M.Sc Completed: 36

Department of Physics, Alagappa University, Karaikudi-630003			Awarded
S. No.	Students Name	Title of the Thesis	
01	S. ANUSIYA (R2015521002)	Synthesis, growth, structural and optical properties of 8-hydroxyquinolinium 4-hydroxybenzoate NLO single crystal	April 2017
02	R. KRISHNA (R2015521018)	Synthesis, growth, structural, optical, thermal properties of 2-aminopyridinium copper acetate single crystal	April 2017
03	G. PARVATHY (R2015521024)	Synthesis, growth, spectral, and optical properties of piperazinium p-hydroxybenzoate nonlinear optical single crystal	April 2017
04	M. PERIYANAYAKI (R2015521025)	Synthesis, crystal growth, structural, spectral, thermal and optical properties of piperidinium p-hydroxybenzoate NLO single crystal	April 2017
05	S. SIVARANJANI (R2015521038)	Synthesis, crystal growth, structural, spectral and optical properties of 2-aminopyridinium p-chlorobenzoate NLO single crystal	April 2017
06	A. CAROLIN AMALA (R2016521004)	Synthesis, growth, spectral and optical properties of 2-aminopyridinium succinate and vanillinium 2-chlorobenzoate nonlinear optical single crystals	April 2018
07	P. ISWARYA (R2016521009)	Synthesis, growth and characterization of piperazinium benzilate NLO single crystal	April 2018

08	M. MUNESWARI (R2016521017)	Synthesis, growth and characterization of 4-aminopyridinium p-chlorobenzoate and 8-hydroxyquinolinium sebaciate nonlinear optical single crystal	April 2018
09	M. VALLIKKODI (R2016521040)	Synthesis, growth and characterization of piperazinium p-aminobenzoate and piperazinium p-chlorobenzoate nonlinear optical single crystals	April 2018
10	K. VELSANKAR (R2016521041)	Synthesis, growth, structural, spectral and optical studies on piperazinium salicylate and vanillinium 3,4-dimethoxybenzoate single crystal	April 2018
11	V. ATCHAYA (R2017521006)	Crystal growth and characterization of vanillium succinate and 2-aminopyridinium 3,5-dinitrobenzoate organic nonlinear optical single crystals	April 2019
12	M. KARTHIKA (R2017521019)	Synthesis, growth and characterization of benzilate 2-amino 6-methyl pyridium and 5-chlorosalicylate 2-amino pyridinium nonlinear optical single crystal	April 2019
13	R. MANGALA BHARATHI (R2017521023)	Synthesis, crystal growth, structural, spectral and optical properties of nicotinamide 8-hydroxy quinoline and 2-amino 6-methylpyridinium myristate NLO single crystal	April 2019
14	K. RAJIYA BEGAM (R2017521033)	Synthesis, structural and optical properties of MnFe ₂ O ₄ nanoparticles	April 2019
15	V. VINOTHINI (R2017521047)	Synthesis, structural and optical properties of pure and copper doped ZnS nanocrystals	April 2019
16	R.M. ASWIN KUMAR (R2018521006)	Green synthesis of copper oxide nanoparticles using tamarindus Indica pulp extract and its antibacterial activity	June 2020
17	M. MALAISELVI (R2018521019)	Green synthesis of lanthanum oxide nanoparticles using moringa oleifera leaves extract with its antioxidant, anti-inflammatory and antidiabetic activities	June 2020
18	A. NIVEDHITHA BHARATHI (R2018521026)	Green synthesis of silver nanoparticles via zeephyranthes roses flower extract for antibacterial and anti-inflammatory application	June 2020
19	R. PREETHI (R2018521030)	Green synthesis of silver nanoparticles via allium sativum flower extract for antimicrobial and anti-inflammatory application	June 2020
20	R. SELVA MUNESWARI (R2018521039)	Eco friendly synthesis of lanthanum oxide nanoparticles using eucalyptus globules leaves extract for biomedical application	June 2020
21	S. ARCHANA (R2019521003)	A novel 2D-Sb/rGO nanocomposites as a potential electrode material for high performance supercapacitor application	April 2021
22	P. MUTHUMARI (R2019521017)	Green synthesis of ZnO nanoparticles via erythrina indica leaf extract for antimicrobial	April 2021

		application	
23	G. SEETHALAKSHMI (R2019521031)	Development of high performance electrode based on Cr ₂ O ₃ -Co ₃ O ₄ nanocomposite in aqueous electrolyte	April 2021
24	C. SELVI (R2019521032)	Exploration of Cr ₂ O ₃ -NiO nanocomposites as a superior electrode material for supercapacitor application	April 2021
25	S. SUGANYA (R2019521038)	Green synthesis CuO nanoparticles via capsicum frutescens leaf extract for antibacterial application	April 2021
26	S. ABDULKAJINA (R2020521001)	Synergistic effect of two dimensional MoS ₂ -Cr ₂ O ₃ nanocomposite based electrode material for high performance supercapacitor applications	May 2022
27	C. DEEPIKA (R2020521007)	Hybridization of carbon sphere-graphitic carbon nitride based nano composite for high performance supercapacitor application	May 2022
28	C. NITHYASHREE (R2020521029)	Fabrication of multilayered MoO ₃ -Sb nanocomposite based electrode for electrochemical supercapacitor	May 2022
29	S. PUSHPA (R2020521034)	Exploration of two dimensional antimony@rGO nanocomposite for high performance of supercapacitor	May 2022
30	M. THENMOZHI (R2020521044)	Investigation on two dimensional layered MoO ₃ -La ₂ O ₃ nanocomposite for supercapacitor application	May 2022
31	S. ABITHA BHANU (R2021521003)	Investigation of MoO ₃ -Fe ₂ O ₃ nanocomposite based electrode for supercapacitor applications.	April 2023
32	C. ASHWIN (R2021521009)	Exploration of two dimensional layered hexagonal boron nitride for the fabrication of high performance hybrid supercapacitor	April 2023
33	P. DIVYARANI (R2021521018)	Fabrication of Y ₂ O ₃ -CoO ₃ nanocomposites and analysing their electrochemical properties for supercapacitor applications.	April 2023
34	J. JEYAPRATHA (R2021521024)	Exploration of electrochemical properties of SrO-NiO as an effective electrode for supercapacitor	April 2023
35	S. RAMYA (R2021521034)	Preparation of MnFe ₂ O ₄ -gC ₃ N ₄ nanocomposites for high performance supercapacitor applications.	April 2023
36	V. YOGA THARSHINI (R2021521045)	Synthesis, crystal growth and optical properties of 8-Hydroxyquinolinium 3,5-Dinitrobenzoate for NLO applications.	April 2023

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
118	34	05	36	---

Cumulative Impact Factor(asperJCR) : 471.222

h-index : 22

i10 index : 56

Total Citations : 1905

Publications

Thesis Evaluated : 04 (Internal)

Vivavoce Examiner : 04 (Internal)

Department of Physics, Alagappa University, Karaikudi-630003			Awarded
S. No.	Students Name	Title of the Thesis	
01	G. PARVATHY (R20161810)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 5-chloro-2-hydroxybenzoic acid derivative single crystals for nonlinear optical applications.	13 th April 2022
02	R. KALIAMMAL (R20161943)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 2-amino-6-methylpyridine derivative single crystals for nonlinear optical applications.	17 th June 2022
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Funded Research Projects

Ongoing Projects:

S.No	Agency	Period		Project Title	Budget (Rs.In lakhs)
		From	To		
1	DST SERB- EEQ	17-02- 2024	16-02- 2027	Development of SnO ₂ /Co-Ni double hydroxide (core/shell) nanostructured towards enhanced performance in supercapacitor application	36.34
2	MHRD- RUSA (Indian)	2018	2019	Advanced Materials for Sustainable Energy and Sensors	5.00

Completed Projects:

S.No	Agency	Period		Project Title	Budget (Rs.In lakhs)
		From	To		
1	MHRD- RUSA (Indian)	2018	2019	Advanced Materials for Sustainable Energy and Sensors	5.00

Distinctive Achievements / Awards

- A Ph.D thesis entitled “Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 2-amino-6-methylpyridine derivative single crystals for nonlinear optical applications”, supervised by me was awarded with “**National Award for Best Thesis in Crystal Growth**” by Indian Association of Crystal Growth, 2023.
- Promising Researcher Award – 2022 by Alagappa University, Karaikudi-03.
- VallalAlagappar Research Recognition Award – 2020 by Alagappa University, Karaikudi-03.

Events organized in leading roles

Number of Seminars /Conferences /Workshops/ Events Organized:

Position	Programme	Duration	Institution
Organizing Secretary	A Special Lecture on Construction of Biologically Interesting Aromatics via Benzannulation	26 th February, 2024	Alagappa University
Organizing Secretary	25 th national seminar on crystal growth and applications (XXV NSCGA-2023).	21-23, June 2023	Alagappa University
Organizing Secretary	ACT NEXT-2020	12 February 2021	Alagappa University
Organizing Secretary	International virtual conference on recent trends in energy materials (INCRTEM - 2020)	09-11 September 2020	Alagappa University
Organizing Secretary	Online Webinar	13 May 2020	Alagappa University
Organizing Secretary	World Standards Day	21 October 2019	Alagappa University
Organizing Secretary	International Conference on Advanced Materials for Sustainable Energy and Sensors	16-17 th September, 2019	Alagappa University

Events organized as an active member

1. Active Member of Organized Alagappa University Celebrates Themed Nobel Excellence Talks – 2022 **ACT NEXT-2022**, Department of Physics, Alagappa University, Karaikudi on 10.01.2023.
2. Active Member of Organized One day Workshop on “Entrepreneurship and Innovation” as Career Opportunity, on 14.11.2022, held at Alagappa University by Entrepreneurship Development Cell (TN Scheme) of Alagappa University.
3. Active Member of Organized **World Standards Day** on 14.10.2022 in the Department of Physics, Alagappa University.

4. Active Member of Organized **World Standards Day** on 13.11.2021 in the Department of Physics, Alagappa University.
5. Active Member of Organized **World Standards Day** on 14.10.2020 in the Department of Physics, Alagappa University.
6. Active Member of Organized Alagappa University Celebrates Themed Nobel Excellence Talks – 2019 ACT NEXT-2019 on 28th August 2020.
7. Active Member of Organized a Two days **National Conference on Advanced Materials for Sustainable Energy and Sensors (NCAMSES-2019)** during 20-22, March 2019 by the Department of Physics, Alagappa University, Karaikudi-630 003.
8. Active Member of Organized an **International Conference on Momentous Role of Nanomaterials in Renewable Energy Devices – 2018 (IC MNRE-2018)** during 1-2, March 2018 by the Department of Physics, Alagappa University, Karaikudi-630 003.
9. Active Member of Organized a National Workshop on **Business Oriented Analytical Research and Development 2018 (BOARD-2018)**, by the Department of Physics, Alagappa University, Karaikudi-630 003 during 31st Jan' to 1st Feb' 2018.
10. Active Member of Organized a **National Theme Meet on University-Industry Interface 2017 (NTM U2I-2017)** by Industry & Consultancy Cell in association with the Department of Physics, Alagappa University, Karaikudi India in Alagappa University, Karaikudi during 20-21, September 2017.
11. Active Member of Organized Alagappa University Celebrates Themed Nobel Excellence Talks – 2016 ACT NEXT-2016, on 28th April 2017.
12. Active Member of Organized UGC sponsored “National Conference on Futuristic Materials (NCFM-2017)” by Department of Physics, Alagappa University, Karaikudi, India held during 27-28, March 2017.
13. Active Member of Organized “Business Oriented Hands-on Training on Analytical Instrumentation (HI-BOAT-2017)” by Department of Physics, Alagappa University, Karaikudi, India held during 2-3, March 2017.
14. Active Member of Organized “Alagappa University Inter Collegiate Yoga Competition 2016-17” by Centre for Yoga Education, Alagappa University, Karaikudi-630003 on 24th February 2017.
15. Active Member of Organized “Workshop and Activity based Yoga (WAY-2017)” by Centre for Yoga Education, Alagappa University, Karaikudi-630003 on 8th February 2017.
16. Active Member of Organized “National Seminar on Advanced Materials Research NSAMR-2017” by Department of Physics, Alagappa University, Karaikudi-630003, Tamil Nadu, India on 19.01.2017.
17. Active Member of Organized a “National Seminar on “Recent Advancements in Frontier Areas of Materials Science” by Department of Physics, Alagappa University, Karaikudi, India held on 23-24th March, 2016.
18. Active Member of Organized Alagappa University Celebrates Themed Nobel Excellence Talks – 2015 ACT NEXT-2015, on 18th March 2016.

Events Participated

Number of Conferences/Seminars/Workshops:

International Conferences/Seminars

36. A Nivedhitha Bharathi, V Kousalya Devi, **S. Sudhahar**, Improved electrochemical performance of bio-derived nickel oxide Nanoparticles using zephyranthes rosea flower extract and investigation on charge storage mechanism, International Conference on Advanced Energy Materials and Energy Storage (ICAEMES-2023), Department of Chemistry, School of Basic sciences, VISTAS, Chennai, (October 12-13, 2023).
35. S. Suganya, **S. Sudhahar**, Fabrication of $ZnMn_2O_4$ Nanocomposites as a Potential Electrode for High Performance Supercapacitor Applications, International Conference on Recent Innovations in Materials Science and Spectroscopy (ICRIMS – 2023) by PG & Research Department of Physics Jamal Mohamed College, 10th January 2023.
34. V Kousalya Devi, **S. Sudhahar**, Growth and synthesis of 2-amino 2-picolinium p-carboxychlorobenzoate dihydrate organic single crystal for nonlinear optical applications on International Conference on Crystal Growth and Spectroscopy, St. Joseph's College, Trichy, 620002, (August, 29-31, 2022).
33. G Parvathy, **S. Sudhahar**, Growth and synthesis of 2-amino 2-picolinium p-carboxychlorobenzoate dehydrate organic single crystal for nonlinear optical applications, International Conference on Crystal Growth and Spectroscopy, St. Joseph's College, Trichy-620002, (August 29-31, 2022).
32. R Kaliammal, **S. Sudhahar**, Crystal growth and characterization of 2-aminopyridine nicotinamide single crystal for nonlinear optical applications, International Conference on Emerging Trends in Materials for Energy and Biological Applications (ICMEEBA-2020), M. Kumarasamy College of Engineering, (March 7, 2020).
31. G Maheshwaran, **S. Sudhahar**, Eco-friendly synthesis of Lanthanum oxide nanoparticles by Eucalyptus Globulus leaves extract for effective biomedical applications, International Conference on Emerging Trends in Materials for Energy and Biological Applications (ICMEEBA-2020), M. Kumarasamy College of Engineering, (March 7, 2020).
30. R Kaliammal, **S. Sudhahar**, Physicochemical and density functional theories of 2-amino-6-methylpyridinium tetracanoate single crystal, International Conference on Emerging Trends in Materials for Energy and Biological Applications (ICMEEBA-2020), M. Kumarasamy College of Engineering, (March 7, 2020).
29. R Kaliammal, **S. Sudhahar**, Growth and characterization of 2-aminopyridinium veratriate single crystal for nlo applications, International Conference on Emerging Trends in Materials for Energy and Biological Applications (ICMEEBA-2020), M. Kumarasamy College of Engineering, (March 7, 2020).
28. R Kaliammal, **S. Sudhahar**, Crystal growth and characterization of 2-amino pyridinium pelminate single crystal for nonlinear optical applications, International Conference on Physics of Advanced Materials and Molecules (ICPAMM-2020), Dr. Ambedkar Govt. Arts. College, Vyasarpadi, Chennai, (Jan 30-31, 2020).
27. R Kaliammal, **S. Sudhahar**, Growth and characterization of 2-aminopyridinium 3,4-

dimethoxybenzoate for nonlinear applications, International Conference on Physics of Advanced Materials and Molecules(ICPAMM-2020), Dr. Ambedkar Govt. Arts. College,Vyasarpadi, Chennai, (Jan 30-31, 2020).

26. G Parvathy, **S.Sudhahar**, Physicochemical and DFT simulation studies of 6-methyl-2-pyridilaminium veratrumenoate single crystal for nonlinear optical applications, International Conference on Recent Advances in Materials and Mathematical Sciences (RTMMS-2019), Kalasalingam Academy of Research and Education, Krishnankoil, (Dec 18-20, 2019).
25. G Parvathy, **S.Sudhahar**, Experimental and theoretical studies of vanillic aldehyde 2-hydroxy-5-chlorobenzooic acid nonlinear optical single crystal, International Conference on Recent Advances in Materials and Mathematical Sciences (RTMMS-2019), Kalasalingam Academy of Research and Education, Krishnankoil, (Dec 18-20, 2019).
24. K Velsankar,**S.Sudhahar**, Biosynthesis of ZnO Nanoparticles by Using Cucurbita Seed Extract on Mosquito Larvae with its Bioactive Behavior, International Conference on Recent Advances in Materials and Mathematical Sciences (RTMMS-2019), School of Advanced Sciences, Kalasalingam Academy of Research and Education, Krishnankoil, (Dec 18-20, 2019).
23. G Parvathy, **S.Sudhahar**, Growth, optical, thermal and mechanical properties of piperazinium orthophthalate single crystal, International Conference on Recent Advances in Materials and Mathematical Sciences (RTMMS-2019), Kalasalingam Academy of Research and Education, Krishnankoil, (Dec 18-20, 2019).
22. G Parvathy, **S.Sudhahar**, Synthesis, Growth and Characterization of New Organic 6-Amino-2-Picolinium Myristate Single Crystal for Nonlinear Optical Applications, International Conference on Recent Advances in Materials and Mathematical Sciences (RTMMS-2019), Kalasalingam Academy of Research and Education, Krishnankoil, (Dec 18-20, 2019).
21. G Parvathy, **S.Sudhahar**, Crystal growth and characterization of Bis-(6- Amino-2-picoline) succinate monohydrate organic nonlinear optical single crystal, International Conference on Recent Trends in Applied Science and Technology (ICRTAST-2019), SSN institute of technology, Chennai, (Sep 19-21, 2019).
20. G Parvathy, **S.Sudhahar**, Vibrational, optical, thermal and density functional theories of vanillin nicotinamide nonlinear optical crystal, International Conference on Recent Trends in Applied Science and Technology (ICRTAST-2019), SSN institute of technology, Chennai, (Sep 19-21, 2019).
19. R Kaliammal, **S.Sudhahar**, Structural, optical, thermal, mechanical and Quantum chemical calculations of Bis-(2-amino-6-methylpyridinium) succinate monohydrate organic single crystal, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Alagappa University, Karaikudi, (Sep 16-17, 2019).
18. G Parvathy, **S.Sudhahar**, Spectral, optical, thermal, mechanical and Quantum chemical computations of 4-hydroxy-3-methoxybenzaldehyde nicotinamide organic co-crystal for NLO applications, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Alagappa University, Karaikudi, (Sep 16-17, 2019).
17. K Velsankar, **S.Sudhahar**, Cytotoxicity and Antibacterial activity of Biosynthesis of ZnO nanoparticles by Echinochloafrumentacea grains extract, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Alagappa University, Karaikudi, (Sep 16-17, 2019).

16. G Parvathy, **S.Sudhahar**, Investigation of piperazinium orthophthalate single crystal with its mechanical, thermal and optical properties for non-linear optical applications, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Alagappa University, Karaikudi, (Sep 16-17 2019).
15. G Parvathy, **S. Sudhahar**, Synthesis, growth and non-linear optical properties of 8-hydroxyquinolinium myristate optical single crystal, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Department of Physics, Alagappa University, Karaikudi, (September 16-17, 2019).
14. K Velsankar, **S. Sudhahar**, Biosynthesis of Ag nanoparticles by *Allium Sativum* flower extract as a capping agent and its antibacterial activity, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Department of Physics, Alagappa University, Karaikudi, (September 16-17, 2019).
13. K Velsankar, **S. Sudhahar**, Antibacterial activity of Biosynthesis of CuO nanoparticles by *Allium Sativum* extract as a stabilizing agent, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Department of Physics, Alagappa University, Karaikudi, (September 16-17, 2019).
12. R Kaliammal, **S. Sudhahar**, Effective growth of 2-aminopyridinium p-hydroxybenzoate single crystals and its structural optical properties for non-linear optical applications, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Department of Physics, Alagappa University, Karaikudi, (September 16-17, 2019).
11. R Kaliammal, **S. Sudhahar**, Structural, vibrational, optical and second harmonic NLO properties of 2-amino-6-methylpyridinium myristate single crystal, International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES – 2019), Department of Physics, Alagappa University, Karaikudi, (September 16-17, 2019).
10. R Kaliammal, **S. Sudhahar**, Studies on the spectral and optical properties of organic non-linear optical 2-aminopyridinium 5-chlorosalicylate single crystal, International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS - 2019), Department of Chemistry, Sree Sevugan Annamalai College, Devakottai, (September 6, 2019).
9. G Parvathy, **S. Sudhahar**, Synthesis, growth, structural and optical properties of 8-hydroxyquinolinium myristate nonlinear optical single crystal, International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS - 2019), Department of Chemistry, Sree Sevugan Annamalai College, Devakottai, (September 6, 2019).
9. K Velsankar, **S. Sudhahar**, Effect of cytotoxicity and antibacterial activity of biosynthesis of ZnO hexagonal shaped nanoparticles by *Echinochloa frumentacea* grains extract as a reducing agent, International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS - 2019), Department of Chemistry, Sree Sevugan Annamalai College, Devakottai, (September 6, 2019).
8. R Kaliammal, **S. Sudhahar**, Spectral and optical properties of 2-aminopyridinium p-hydroxybenzoate nonlinear optical single crystal, International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS - 2019), Department of Chemistry, Sree Sevugan Annamalai College, Devakottai, (September 6, 2019).
7. R Kaliammal, **S. Sudhahar**, Crystal growth and characterization of 2-amino 6-methylpyridinium 3,4-dimethoxybenzoate organic nonlinear optical single crystal, International Conference on Modelling Crystal Growth Processing and Devices (MCGPD-

2019), Department of Physics, SSN Institute of Technology, Chennai, (February 26-28, 2019).

6. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, Investigation on Spectral, Thermal and Dielectric Properties of DAST Crystal, International Conference Recent Trends in Applied Physics & Materials Science (RAM 2013), Govt. College of Engineering and Technology, Bikaner, Rajasthan, (February 1-2, 2013).
5. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, Studies on structural, spectral and optical properties of organic nonlinear optical single crystal: 2-amino-4,6-dimethyl pyrimidinium p-hydroxybenzoate, International conference on Research, Perspectives and Procedures, SDNB Vaishnav College for Women, Chennai-44, (August 23-24, 2012).
4. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, Crystal growth, X-ray diffraction, spectroscopic, Optical studies on 4-bromo-4'-N'-methylstilbazolium tosylate single crystals, International conference: Research: Perspectives & Procedures, SDNB Vaishnav College for Women, Chennai-44, (August 23-24, 2012).
3. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, Effect of Sm^{3+} ion on structural, thermal, mechanical, linear and nonlinear optical properties of potassium hydrogen phthalate single crystals, International Conference on Materials Science and Technology (ICMST-2012), St. Thomas College, Pala, Kerala, (June 10-14, 2012).
2. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, Investigation on rare earth doped nonlinear optical potassium hydrogen phthalate single crystals, International conference on Recent Trends in Advanced Materials (ICRAM-2012), VIT University, Vellore, (February, 20-22 2012).
1. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, Growth and characterization of inorganic nonlinear optical Lithium sodium Sulfate hydrate single crystals, International Conference on Advanced Materials ICAM2012, Department of Physics, Loyola College, Chennai, (January 5-7, 2012).

National Conferences/Seminars

34. V Kousalya Devi, A Nivedhitha Bharathi, **S. Sudhahar**, Growth and synthesis of bis (creatininium 2,4-dichlorobenzoate) organic single crystal for nonlinear optical applications, 25th National Seminar on Crystal growth and applications, Department of Physics, Alagappa University, Karaikudi, (June 21-23, 2023).
33. A Nivedhitha Bharathi, V Kousalya Devi, **S. Sudhahar**, MnS_2 , a transition metal dichalcogenide nanoparticle, as effective electrode material for supercapacitor applications, 25th National Seminar on Crystal growth and applications, Department of Physics, Alagappa University, Karaikudi, (June 21-23, 2023).
32. A Nivedhitha Bharathi, **S. Sudhahar**, Transition Metal dichalcogenide Nanoparticle, MnS_2 as an effective electrode material for supercapacitor applications, National Conference on Recent Trends in Green Energy Technologies, Department of Green Energy Technology, Pondicherry University, (December 8-9, 2022)
31. G. Parvathy, R. Kaliammal, G. Maheshwaran, **S. Sudhahar**, Studies on the spectral and optical properties of organic non-linear optical L-alaninium 3,5 dinitrobenzoate (LADN) single crystal, Participated and presented a poster in National conference on Advanced

materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March, 2019.

30. R. Kaliammal, G. Parvathy, **S. Sudhahar**, Synthesis, growth, spectral and optical properties of 2-amino 6-methylpyridinium benzilate organic nonlinear optical single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
29. K. Velsankar, V. Muthulakshmi, G. Maheshwaran, **S. Sudhahar**, Second order nonlinear optical characterization of vanilium 3,4- Dimethoxybenzoate organic single crystal, Participated and presented an Oral in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
28. G. Maheswaran, U. Karuppasamy, K. Velsankar, **S. Sudhahar**, Structural and nonlinear optical properties of 8-hydroxyquinolium 6- aminocaproate non -centrosymmetric single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
27. V. Atchaya, K. Velsankar, K. Rajiyabegam, **S. Sudhahar**, Crystal growth and characterization of a succinatevanillium organic nonlinear optical single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
26. M. Karthika, G. Parvathy, G. Maheswaran, **S. Sudhahar**, Synthesis, growth, structural and optical properties of 5-chlorosalicylic acid 2-aminopyridinium nonlinear optical single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
25. K. Rajiyabegam, R. Kaliammal, G. Parvathy, **S. Sudhahar**, Synthesis, growth, optical and second harmonic generation studies of 2-amino 6-methylpyridinium barbutriate organic nonlinear optical single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
24. R. Mangala Bharathi, V. Vinothini, **S. Sudhahar**, Synthesis, crystal growth, structural and optical properties of 2-amino 6-methylpyridinium myristiate nonlinear optical single crystal, Participated and presented a poster in National conference on Advanced materials for sustainable energy and sensors (NCAMSES) at Alagappa University, Karaikudi on 20-22nd March 2019.
23. G. parvathy, R.Kaliammal, K.Velsankar, **S. Sudhahar**, Synthesis, Growth and characterization of piperazinium p-hydroxybenzoate nonlinear optical single crystal, Participated and presented an Oral in National seminar on recent advanced materials and applications (RAMA 2019) at Theivanaammal college for women Viluppuram on 6th February 2019.
22. R. Kaliammal, G. parvathy, G.Maheswaran, **S. Sudhahar**, Synthesis, growth, structural

and optical properties of 2-amino 6-methylpyridinium 6-aminocaproate nonlinear optical single crystal, Participated and presented an Oral in National seminar on recent advanced materials and applications (RAMA 2019) at Theivanaiammal college for women Viluppuram on 6th February 2019.

21. S. Anusiya, G. Parvathy, M. Periyanyaki, A. Savari Rajeev, **S. Sudhahar**, 'Synthesis, growth, structural and optical properties of 8-Hydroxyquinolinium p-hydroxybenzoate nonlinear optical single crystal', participated and presented innational conference on futuristic materials, held at Department of Physics, Aalagappa University, Karaikudi, March 27-28, 2017.
20. R. Krishna, S. Sivaranjani, S. Muniyasamy, **S. Sudhahar**, 'Synthesis, growth, spectral, thermal, mechanical and optical properties of piperidinium p-chlorobenzoate nonlinear optical single crystal', participated and presented innational conference on futuristic materials, held at Department of Physics, Alagappa University, Karaikudi, March 27-28, 2017.
19. G. Parvathy, M. Periyanyaki, S. Anusiya, S. Muniyasamy, **S. Sudhahar**, 'Synthesis, growth, spectral and optical properties of piperazinium p-hydroxybenzoate nonlinear optical single crystal', participated and presented innational conference on futuristic materials, held at Department of Physics, Alagappa University, Karaikudi, March 27-28, 2017.
18. M. Periyanyaki, S. Anusiya, G. Parvathy, A. Savari Rajeev, **S. Sudhahar**, 'Synthesis, crystal growth, structural, spectral, thermal and optical properties of 8-Hydroxyquinolinium 5-chlorosalicylate nonlinear optical single crystal', participated and presented innational conference on futuristic materials, held at Department of Physics, Alagappa University, Karaikudi, March 27-28, 2017.
17. S. Sivaranjani, S. Muniyasamy, R. Krishna, A. Savari Rajeev, **S. Sudhahar**, 'Synthesis, growth, spectral, thermal, mechanical and optical properties of 2-Aminopyridinium p-chlorobenzoate nonlinear optical single crystal', participated and presented innational conference on futuristic materials, held at Department of Physics, Alagappa University, Karaikudi, March 27-28, 2017.
16. A. Savari Rajeev, R. Ernast Amala, S. Anusiya, **S. Sudhahar**, 'Third Harmonic Properties Of 2-Phenylethylaminium p-Nitrophenolate Monohydrate Nonlinear Optical Single Crystals', Participated and presented inNational Seminar on Advanced Materials Research (AMR) held at Department of Physics, Alagappa University, Karaikudi, January 19, 2017.
15. S. Muniyasamy, M. Periyanyaki, **S. Sudhahar**, 'Effect of rare earth Yttrium doped triglycine sulphate single crystals and its characterization', Participated and presented inNational Seminar on Advanced Materials Research (AMR) held at Department of Physics, Alagappa University, Karaikudi, January 19, 2017.
14. G. Parvathy, R. Krishna, S. Sivaranjani, **S. Sudhahar**, 'Synthesis, growth, structural, thermal and third order nonlinear optical studies of 2-phenyl-ethanaminium 3-carboxyprop-2-enoate single crystals', participated and presented innational seminar on advanced materials research (AMR) held at Department of Physics, Alagappa University, Karaikudi, January 19, 2017.

13. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Crystal growth and optical studies of 4-hydroxy-4'-N'-methylstilbazoliumtosylatesinglecrystalsfor nonlinear optical applications', Participated and presented in 22nd DAE-BRNS National Laser Symposium held at MIT, Manipal University, Manipal, Karnataka, Jan 7-11, 2014.
12. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Synthesis, Crystal growth and optical studies of Urea 2-hydroxy-5-sulfobenzoate single crystal', Participated and presented in XVIII National Seminar on Crystal Growth held at Centre for Crystal Growth, SSN College of Engineering, Chennai, 24-26, February 2014.
11. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Synthesis, crystal growth and characterization of pi-conjugated stilbazolium 4-hydroxy-3-methoxy-4'-N'-methylstilbazoliumtosylate monohydrate crystals', Participated and presented in National Seminar on Recent Advances in Physics held at Department of Physics, Presidency College, Chennai, 7-8, March 2014.
10. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, '2-Phenylethylammonium p-hydroxybenzoate: Growth, structural, spectral, thermal, optical and mechanical characterization', Participated and presented in National Seminar on Recent Advances in Physics held at Department of Physics, Presidency College, Chennai, 7-8, March 2014.
9. **S. Sudhahar**, I. MD Zahid, M. Krishna Kumar, R. Mohan Kumar, 'Crystalline perfection, birefringence and laser damage threshold properties of piperidinium p-hydroxybenzoate', Participated and presented in 59th DAE-Solid State Physics Symposium held at VIT University, Vellore, 16-20, December 2014.
8. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Crystal growth and optical properties of 4-hydroxy-3-methoxy-4'-N'-methylstilbazoliumtosylate monohydrate crystals', Participated and presented in 21st DAE-BRNS National Laser Symposium (NLS-21) held at Bhabha Atomic Research Centre, Mumbai, February 06-09, 2013.
7. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Growth and electrical properties on NLO crystal: 4-N,N-dimethylamino-4-N'-methylstilbazolium iodide', Participated and presented in 58th DAE-BRNS Solid State Symposium held at Thapar University, Patiala, Punjab, Dec 17-21, 2013.
6. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, 'Synthesis, crystal growth, structural, spectral, thermal, optical and mechanical properties of solution grown 4-methylpyridinium 4-hydroxybenzoate single crystal', Participated and presented a poster in 21st DAE-BRNS National Laser Symposium (NLS-21), at Bhabha Atomic Research Centre, Mumbai-400 085, during February 06-09, 2013.
5. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, '2-phenylethylammonium p-hydroxybenzoate: Synthesis, structural, spectral, thermal, optical and mechanical characterization', Participated and presented a poster in Twenty Fourth National Seminar on Crystal Growth, organized by Crystal Growth Centre, Anna University, Chennai-25, during December 20-22, 2012.
4. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Synthesis, Crystal Growth, Structural and optical studies of Third-Order Nonlinear Optical Crystal: 4-Methyl-4'-N'-

Methylstilbazolium Tosylate', Participated and presented in Twenty Fourth National Seminar on Crystal Growth held at Crystal Growth Centre, Anna University, Chennai December 20-22, 2012.

3. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Investigation on the growth and Optical Properties of the DAST crystal', Participated and presented in National conference on Spectrophysics 2012 held at Indian Spectrophysics Association, Chennai March 7-8, 2012.
2. **S. Sudhahar**, M. Krishna Kumar, R. Mohan Kumar, 'Crystal growth, spectral, optical, thermal and mechanical properties of piperidinium p-hydroxybenzoate single crystal', Participated and presented a poster in National conference on Spectrophysics 2012, organized by Indian Spectrophysics Association, Chennai-30, during March 7-8, 2012.
1. M. Krishna Kumar, **S. Sudhahar**, R. Mohan Kumar, 'Growth and characterization of Inorganic nonlinear optical lithium sodium sulfate hexahydrate single crystals', Participated and presented in DAE-BRNS National Laser Symposium (NLS-20) held at Crystal Growth Centre, Anna University, Chennai January 9-12, 2012.

Short Courses/Workshops

1. **S. Sudhahar**, Participated in seminar on 'Awareness workshop on nanoscience and nanotechnology', organized by Science city from 24th to 27th, August 2010 at the Science City, Chennai.
2. **S. Sudhahar**, Participated in 'One day Seminar on 50 years of Lasers', held at Department of Physics, RKM Vivekananda College, Chennai-600004 on 19th February 2011
3. **S. Sudhahar**, Participated in Short course on 'Crystal Growth and characterization of Laser Materials', Organised by Indian Laser Association, January 07-08, 2012 at Crystal Growth Centre, Anna University, Chennai.
4. **S. Sudhahar**, Participated in 20th DAE-BRNS National Laser Symposium (NLS-20), at Crystal Growth Centre, Anna University, Chennai-600025, during January 09-12, 2012.
5. **S. Sudhahar**, Participated in National conference on 'GREEN CHEMISTRY', held on 10th February 2012 at Department of Chemistry, Presidency College, Chennai.
6. **S. Sudhahar**, Participated in 'National Seminar on Emerging Trends in Physics', Organized by Department of Physics, Government Arts College, Nandanam, Chennai-600035 on 29th February 2012
7. **S. Sudhahar**, Participated in seminar on 'Higgs Boson and Neutrino', held on 7th December 2012 at Department of Nuclear Physics, University of Madras, Chennai-600025.
8. **S. Sudhahar**, Participated in Science Academies Lecture workshop on "Topics in Theoretical Physics", Organized by Department of Physics, Presidency College, Chennai-600005 on 10-11 March 2014

Overseas Exposure/Visits

- NIL

Membership

Professional Bodies

1. Life Member: Indian Physics Association, Life Membership No. GEN/LM/13173
2. Life Member: Indian Laser Association.
3. Life Member: Society for Advancement of Electrochemical Science and Technology
4. Life Member – Indian Physics Association (IPA)
5. Fellow Member - Bose Science Society
6. Life Member- Indian Society for ElectroAnalytical Chemistry

Academic Bodies in Other Institutes/Universities

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
2016 – Till Date	Question paper setter – Bharathidasan University, Trichy	Question paper Setter
2021	Question paper setter – Jamal Mohammed College, Trichy	Question paper Setter

Ph.D. Thesis Guided

1. No.ofPhDThesis evaluated : 04 (Internal)
2. No.ofPhDPublic VivaVoceExaminationconducted : 04 (Internal)

S.No	Name of theScholar	TitleoftheThesis	Year ofCompletion
01	G. PARVATHY (R20161810)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 5-chloro-2-hydroxybenzoic acid derivative single crystals for nonlinear optical	13 th April 2022

		applications.	
02	R. KALIAMMAL (R20161943)	Investigations on the synthesis, growth, physicochemical and quantum chemical calculations of 2-amino-6-methylpyridine derivative single crystals for nonlinear optical applications.	17 th June 2022
03	K. VELSANKAR (R20162024)	A comprehensive exploration on green synthesized metal oxide nanoparticles using panicoidae (edible grass-millet crops) subfamily grains extract for emerging biological applications.	15 th September 2022
04	G. MAHESHWARAN (R20162343)	Investigation on two dimensional layered bismuthene nanosheets and its composites for supercapacitor applications.	20 th January 2023

List of Research Articles / Recent Publications

S. No	Authors/Title of the paper/Journal	Impact Factor
123	B. Arjun Kumar, G. Ramalingam, S.A.B. Al Omari, Z. Bakenov, S. Sangaraju, S. Sudhakar, Efficient processed carbon Soot@MoS ₂ hybrid Bi-functional electrode for dye-sensitized solar cell and asymmetric supercapacitor devices, Nano Materials Science, 12 January 2024 (Available Online)	9.9
122	G. Maheshwaran, Y. Saisrinu, K. Sujith, S. Sudhakar, S. Sambasivam, M. PardhaSaradhi, Novel 2D bismuthene-molybdenum disulfide nanocomposite for high energy density supercapacitors and fabrication scaled to pouch cell, Journal of Energy Storage, 85 (2024) 11104.	9.4
121	A. Priyadharsini, M. Saravanakumar, A. Sakunthala, A. Banu, J. Suryakanth, S. Pavithra, K. Anbazhakan, S. Sudhakar, S. Sambasivam, Role of preparation conditions on the pseudocapacitor properties of SnO ₂ nanoparticles by co-precipitation method, J Mater Sci: Mater Electron, (2024) 35:451.	2.8

120	D. Satheesh, V. Muthulakshmi, A. Jagadesan, A. Venkatesan, K. Suresh, K. Parthipan, S.M, Rayappan, G. Senthilkumar, S. Sudhahar, A Review on Anthropogenic Biomass Burning: Emission of Aerosol Pollutants, Impact on Climate Change, Human Health and its Mitigation Strategies, Asian Journal of Chemistry, 36(3) (2024) 521-530.	
119	V. Kousalya Devi, F. Kousi, M. Mujahid Alam, S. Sambasivam, G. Ramalingam, M. Abith, T.C. Sabari Girisun, S. Sudhahar , Third-order NLO properties and optical limiting behavior of p-toluidinium 2,4-dichlorobenzoate organic single crystal, Spectrochimica Acta Part A, 305 (2024) 123527.	4.4
118	M. Jeevaraj, D. Sivaganesh, S. Saravanakumar, S. Asath Bahadur, S. Sudhahar , M. Krishna Kumar, Extrinsic electronic states to tune the luminescence and bonding nature of Cs ₂ NaInCl ₆ double perovskite, Materials Chemistry and Physics, 311 (2024) 128569	4.6
117	G. Maheshwaran, M. Ramesh Prabhu, G. Ravi, K. Sankaranarayanan, S. Sudhahar , Probing the energy conversion and storage process in two dimensional layered bismuthene-hexagonal boron nitride nanocomposite electrode and PVA-KOH-BaTiO ₃ piezoelectrolyte nanogenerators, Nano Energy, 106 (2023) 108060	17.6
116	G Vignesh, G Rajesh, S. Sudhahar , T Theivasanthi, M Krishna Kumar, Influence of annealing on the morphological, structural and electrochemical properties of Co ₃ O ₄ spinel electrodes, Journal of Energy Storage 73 (2023) 109115	9.4
115	K Velsankar, K Aravinth, Paiva-Santos Ana Cláudia, Yong Wang, Fuad Ameen, S. Sudhahar , Bio-derived synthesis of MgO nanoparticles and their anticancer and hemolytic bioactivities, Biocatalysis and Agricultural Biotechnology, 53 (2023) 102870.	4.0
114	K. Neethidevan, K. Ravichandran, M. Ayyanar, P. Kavitha, S. Amalraj, R. Mohan, N. Dineshbabu, S. Sudhahar , G. Maheshwaran, Wattakakavolubilis powered green synthesized CuO, NiO and ZnO nanoparticles for cost-effective biomedical applications, Biomass Conversion and Biorefinery, (2023) 1-15	4.0
113	M Jeevaraj, D Sivaganesh, S Saravanakumar, S Asath Bahadur, S. Sudhahar , M Krishna Kumar, Broadband near infrared emission in Cr ³⁺ : Cs ₂ AgBiCl ₆ double perovskite halides, Optical Materials 143 (2023) 114294	3.9
112	G Maheshwaran, M PardhaSaradhi, S Sambasivam, R Ranjith Kumar, S Dhinesh, G Ramalingam, S. Sudhahar , Abdallah AA Mohammed Enhanced electrochemical activity of two dimensional layered bismuthene-MWCNT heterostructures based electrodes for the fabrication of high energy density hybrid supercapacitors, Inorganic Chemistry Communications (2023) 111724	3.8
111	S Suganya, M Mujahid Alam, F Kousi, G Ramalingam, M Ramesh Prabhu, S. Sudhahar , Facile one-pot synthesis of ternary Ni-Mn-Zn oxide nanocomposites for high-performance hybrid supercapacitors, Journal of Energy Storage 71 (2023) 108176.	9.4
110	S. Mohandoss, S. Ganesan, S. Palanisamy, S.G. You, K. Velsankar, S. Sudhahar , H.Mu Lo, Y.R. Lee, Nitrogen, sulfur, and phosphorus Co-doped carbon dots-based ratiometric chemosensor for highly selective sequential detection of Al ³⁺ and Fe ³⁺ ions in logic gate, cell imaging, and real sample analysis, Chemosphere, 313 (2023) 137444.	8.8
109	G. Vignesh, P. Devendran, N. Nallamuthu, S. Sudhahar , M. Krishna Kumar, N-rGO/NiCo ₂ O ₄ nanocomposite for high performance supercapacitor applications, J Mater Sci:	2.8

	Mater Electron, 34 (2023) 820	
108	G Vignesh, P Devendran, N Nallamuthu, S. Sudhahar , P Senthil Kumar, M Krishna Kumar, Effects of nitrogen, sulphur, and temperature treatments on the spectral, structural, and electrochemical characteristics of graphene oxide for energy storage applications, Carbon Trends 11 (2023) 100262.	---
107	G. Vignesh, R. Ranjithkumar, P. Devendran, N. Nallamuthu, S. Sudhahar , M. Krishna Kumar, Nitrogen doped reduced graphene oxide/ZnCo ₂ O ₄ nanocomposite electrode for hybrid supercapacitor application, Materials Science and Engineering B, 290 (2023) 116328	3.6
106	M. Jeevaraj, S. Sudhahar , N. Nallamuthu, P. Devendran, S. Saravanakumar, D. Sivaganesh, M. Krishna Kumar, Solution processed Mn ²⁺ doped Cs ₂ AgInCl ₆ lead free double perovskite as a potential light emitting material, Physica B: Condensed Matter, 15 (2023) 414679.	2.8
105	G. Vignesh, R. Ranjithkumar, P. Devendran, N. Nallaperumal, S. Sudhahar , M. Krishna Kumar, Structural, Spectral, and Electrochemical Investigations of a Nitrogen-Doped N-rGO/MgCo ₂ O ₄ Nanocomposite for Supercapacitor Applications, Chemistry Select, 8 (2023) e202203915	2.307
104	M. Jeevaraj, P. Devendran, N. Nallamuthu, S. Sudhahar , M. Krishna Kumar, Influence of Mn ²⁺ doping on the optical properties of Cs ₂ AgBiCl ₆ double perovskite luminescent phosphors, J Mater Sci: Mater Electron, 34 (2023) 65	2.8
103	S. Mohandoss, G. Sivarasan, A. Singaravelu, J.K. Alagarasan, P. Subramanian, S.G. You, K. Velsankar, S. Sudhahar , H.M. Lo, Y.R. Lee, Multiple heteroatom dopant carbon dots as a novel photoluminescent probe for the sensitive detection of Cu ²⁺ and Fe ³⁺ ions in living cells and environmental sample analysis, Environmental Research 219 (2023) 11510	8.3
102	S. Suganya, G. Maheshwaran, M. Ramesh Prabhu, P. Devendran, M. Krishna Kumar, S. Sudhahar , Enhanced electrochemical activity of ternary Co-Mn-Zn oxide for the fabrication of hybrid supercapacitor applications, Journal of Energy Storage, 56 (2022) 106057.	9.4
101	G. Maheshwaran, P. Pandi, S. Suganya, B. Arjun Kumar, G. Ramalingam, M. Ramesh Prabhu, S. Sudhahar , Fabrication of self charging supercapacitor based on two dimensional bismuthene-graphitic carbon nitride nanocomposite powered by dye sensitized solar cells, Journal of Energy Storage, 56 (2022) 105900.	9.4
100	C. Sambathkumar, K.R. Nagavenkatesh, M. Krishna Kumar, N. Nallamuthu, S. Sudhahar , P. Devendran, Electrochemical exploration on hexadecylamine capped copper sulfide nanocubes using single source precursor for enhanced supercapacitor devices, Journal of Energy Storage, 56 (2022) 105898.	9.4
99	M. Jeevaraj, S. Sudhahar , P. Devendran, N. Nallamuthu, N.D. Jayram, M. Krishna Kumar, Structural, optical and charge density investigations on lead free Mn ²⁺ doped Cs ₂ NaBiCl ₆ double perovskite microcrystals, Materials Today Communications, 33 (2022) 104715	3.8
98	R. Ranjithkumar, P. Lakshmanan, N. Palanisami, P. Devendran, N. Nallamuthu, S. Sudhahar , M. Krishna Kumar, Facile, Morphology-Controlled and Mass Production of OD-Ag/2D-g-C ₃ N ₄ /3D-TiO ₂ Nano composite Materials: Effect of Silver Morphology and Loading on the Electrochemical Performance, Electronic Materials Letters, 19 (2022) 172-183.	3.151
97	S. Mohandoss, S. Ganesan, K. Velsankar, S. Sudhahar , F.H. Alkallas, A.B.G. Trabelsi,	3.682

	F.V. Kusmartsev, H.Mu Lo, Y.R. Lee, Fabrication and characterization of Ag nanoparticle-embedded κ -Carrageenan-Sodium alginate nanocomposite hydrogels with potential antibacterial and cytotoxic activities, <i>Journal of Biomaterials Science, Polymer Edition</i> ,6 (2022) 1-16	
96	G. Maheshwaran, A. Venkatesan, R. Kaliammal, M. Ramesh Prabhu, P. Devendran, M. Krishna Kumar, S. Sudhahar , Two-Dimensional Layered Bismuthene/Antimonene Nanocomposite as a Potential Electrode Material for the Fabrication of High-Energy Density Hybrid Supercapacitors, <i>Energy & Fuels</i> , 36 (2022) 12299-12309	4.654
95	Z. Mohamed Riyas, C. Priya, R. Premila, G. Maheshwaran, S. Sudhahar , M. Ramesh Prabhu, Synergistic effect of La_2O_3 -NiO nanocomposite based electrode for electrochemical high-performance asymmetric supercapacitor applications, <i>Journal of Energy Storage</i> , 53 (2022) 104988.	9.4
94	K. Velsankar, G. Parvathy, S. Mohandoss, G. Ravi, S. Sudhahar , Echinochloa frumentacea grains extract mediated synthesis and characterization of iron oxide nanoparticles: A greener nano drug for potential biomedical applications, <i>Journal of Drug Delivery Science and Technology</i> , 76 (2022) 103799	5.0
93	V. Kousalya Devi, A. Venkatesan, A. Nivedhitha Bharathi, G. Parvathy, R. Kaliammal, M. Krishna Kumar, S. Sudhahar , Third Order Nonlinear Optical Properties of Bis (Creatininium 2, 4-Dichlorobenzoate) Monohydrate Organic New Single Crystal, <i>Journal of Molecular Structure</i> , 1271 (2022) 134115	3.8
92	G. Maheshwaran, A. Nivedhitha Bharathi, R. Kaliammal, M. Ramesh Prabhu, P. Devendran, M. Krishna Kumar, S. Sudhahar , Two Dimensional Layered Bismuthene Nanosheets with Ultra-fast Charge Transfer Kinetics as a Superior Electrode Material for High Performance Asymmetric Supercapacitor, <i>Electrochimica Acta</i> , 426 (2022) 140838	6.6
91	A. Nivedhitha Bharathi, G. Maheshwaran, V. Kousalya Devi, M. Krishna Kumar, S. Sudhahar , Enhanced electrochemical performance of bio-derived nickel oxide nanoparticles using Zephyranthes rosea flower extract and investigation on charge storage mechanism, <i>Bulletin of Materials Science</i> , (2022) 45:188	1.8
90	C. Sambathkumar, N. Nallamuthu, M. Krishna Kumar, S. Sudhahar , P. Devendran, Electrochemical exploration of cobalt sulfide nanoparticles synthesis using cobalt diethyldithiocarbamate as single source precursor for hybrid supercapacitor device, <i>Journal of Alloys and Compounds</i> , 920(5) (2022) 165839.	6.2
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