

Dr. N. ANANDHAN
Associate Professor
Department of Physics

Contact

Department of Physics

Advanced Materials and Thin Films Laboratory

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science/school-of-physical-sciences/department-of-physics

Academic Qualifications

Degree	Institution	Year	Branch	Class
Ph D., Physics	Annamalai University, Chidambaram, Tamilnadu, India,	Dec-2007	Physics: Area of Specialization: Materials Science.	Awarded, Highly Commended
M.Phil., Physics	Annamalai University, Chidambaram, Tamilnadu, India,	APR-2002	Physics: Area of Specialization: Materials Science.	First
M.Sc., Physics Bharathidasan University, Tiruchirapalli, India,		APR-2000	Physics	First

Teaching Experience

Total Teaching Experience : Years: 16 Yrs and 7 Months

Position	Institution	Duration
Associate Professor	Department of Physics Advanced Materials and Thin Films Laboratory Science Campus Alagappa University Karaikudi-3 Sivaganga Dist.	12.03.2022 to till date.
Assistant Professor	Department of Physics Advanced Materials and Thin Films Laboratory Science Campus Alagappa University Karaikudi-3 Sivaganga Dist.	12.03.2010 to 11.03.2022.
Assistant Professor	Department of Physics Faculty of Engineering and Technology SRM University (Now SRMIST) SRM Nagar Kattankulathur Chennai-603 203.	01.07.2009 to 11.03.2010
Lecturer	Department of Physics Faculty of Engineering and Technology SRM University(Now SRMIST) SRM Nagar Kattankulathur, Chennai-603 203.	28.07.2007 to 30.06.2009.

PDF/ Visiting Professor : Abroad

Position	Institution	Duration

ResearchExperience

Total Research Experience : Years

Position	Institution / University	Duration
Research Guide/supervisor	Department of Physics Advanced Materials and Thin Films Laboratory Science Campus Alagappa University Karaikudi-3 Sivaganga Dist.	12.03.2010 to Till date

Academic and Additional Responsibilities

S.No	Position	UniversityBodies	Period	
			From	To
1	Deputy Co-Ordinator	UGC Scheme: Coaching Scheme for NET	2019	Till
1.	Deputy Co-Ordinator	Exam	2019	Date

2. Social Responsibility/Professional Developmental activity:

- ➤ 2010 Co-ordinator, Organized Village Placement Programme Mathur Village.
- ➤ 2014 Co-ordinator, Organized Village Placement Programme Kundrakudi Village.
- ➤ 2023 Co-ordinator, Organized Village Placement Programme Village Extension Programme (VEP) at Kottiyur Village.
- ➤ Interaction with Pre-college Students (Higher Secondary School students) Resource Person cum Practical in-charge for –DST-INSPIRE Internship Programme 2013, Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi during 6-10th Sep, 2013.

3. Department Developmental activity:

- Department Library in-charge since 12 April 2010 to 03 July 2017.
- Member in DRC for selection of PhD students since 2010 to till date.
- ➤ Board of studies for PG students since 2010 to till date.
- Answer Sheet Evaluation as internal examiner.
- Organized State Level Workshop on Structure solving by Powder X-ray diffraction (SLWSSP-XRD-2011) ,26-27, July 2011.
- Interview/selection committee member for appointing SRF/JRF/Project Fellow Under DST-PURSE programme, 2011.
- ➤ In-charge for operating Vibration Sample Magnetometer during June-2013 -May-2015
- > Question Paper Setting for special subjects (M.Sc., M.Phil., Ph.D course work)
- Counselor for II M.Sc., students.
- Industrial/field visit In-charge for M.Sc Physics students 2011-12 and 2015-16.
- ➤ Department Research Colloquium in-charge 2010-2012.
- > Stake holder in UGC–SAP, UGC-DRS Level-I and Phase -III, Department of Physics.
- > Stake holder in DST-FIST, SAP, SAP-DRS Phase-III Department of Physics.
- Organized National Science day programme at Department of Physics in 2012.
- Organizing Committee member National Workshop on Characterization Techniques (NWCT-1, 2012)" 24 & 26, March 2012.
- Organizing Committee member National Workshop on Characterization Techniques (NWCT-2, 2013)" 24 & 26, March 2013.
- Organizing Committee member International Workshop on Advanced Materials-2014 (IWAM-2014)" 20-21 March 2014.
- University Representative to Conduct the Distance Education Examinations at Various Centers located in India since 2010 to till date.
- > Department Environmental committee co-ordinater since 2016.
- Organizing Committee member National Seminar on Advanced materials Research (AMR 2017) ,19 Jan. 2017.
- Organized Business Oriented Hands-on Training on Analytical Instrumentation (HI-BOAT-2017), 2-3, March 2017.

- Organizing secretary, A Special Lecture on Non Destructive Tests (NDT) used in Industries on 6th March 2017.
- Organized National Conference on Futuristic Materials (NCFM-2017), 27-28 March 2017.
- Organizing Committee member Business oriented Analytical Research and Development (BOARD), 31st Jan and 1st Feb-2018.
- Organizing Committee member International Conference on Momentous Role of Nanomaterials in Renewable Energy Devices (ICMNRE 2018), 1 - 2 March 2018.
- Organizing Committee member National Conference on Advanced Materials for Sustainable Energy and Sensors Futuristic Materials (NCAMESES-2019), Organized by Department of Physics, Alagappa University, Karaikudi on 20-22th Mar- 2019.
- Organizing Committee member International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019), during Sept 16-17,2019, Organized by Department of Physics, Alagappa University, Karaikudi-3, Tamil Nadu, India.
- Organizing Committee member International Virtual Conference on Recent Trends in Energy Material (INCRTEM-2020), during Sept 09-11, 2020, Organized by Department of Physics, Alagappa University, Karaikudi-3, Tamil Nadu, India.
 - ➤ Organizing Committee member for ACTNEXT-2022.
 - Organizing Committee member University Teacher's Day celebration, Sept 2023.
 - Convener World Standard Day, October, 2023.
 - ➤ Organizing Committee member for ACTNEXT-2024.

4. Committee Members for University Functions//Events

- ❖ Active Squad member for affiliated Colleges Semester Exams Since 2014 to till date
- ❖ Active Committee Member for University Teachers Day Celebration function since 2022 to till date.
- ❖ Active Committee Member for University's 33rd (2023) and 34th (2024) Convocation.

Areas of Research

- **4** Materials Science of Thin Films.
- ♣ Thin films for devices (Energy: DSSCs, PSCs, Supercapacitor; Sensor; Heavy metal sensors),
- **♣** Bionanomaterials and
- **♣** Bioactive Thin films for Biomedical Applications.

Patents Filed

List of Patent Applied/Granted

- 1. A Facile Synthesis Method for Structural and Morphological Tuning of Copper-Based <u>Metal</u> **Oxide Nanoparticles and Sensor Application**, Dr. T. Sasipraba, Dr. G. Murugadoss, Dr. P. Kuppusami and **Dr. N. Anandhan**, Patent Application No: 202141043273; Filed date: 24/09/2021; Indian Patent.
- 2. A System and Composition for Fabricating Pseudocapacitive Positive Electrodes for <u>Aqueous Supercapacitor Applications</u>, Dr. Govindhasamy Murugadoss, Dr. Sasipraba Thankappan, Dr. Manavalan Rajesh Kumar, **Dr. Anandhan**, N, Dr. Rajasekar Mani, Patent Application No: 202022100601; Filed date: 02/02/2022 -German Patent; Granted 01/04/2022.
- 3. A System for Developing a <u>Solid-State Symmetric Supercapacitor</u> by Using Graphene Derived Nickel-Copper Metal-Oxide Nanocomposite, Dr. Govindasamy Murugadoss, Sathyabama Institute of Science and Technology, Dr. Rajesh Kumar Manavalan, **Dr Anandhan Narayanasamy**, Dr. Rajasekar Mani Patent Application No: 20 2022 103 526; Filed date: 24.06.2022; German Patent.
- 4. A System and Composition for <u>Synthesizing Ce and Sn-Doped ZnS Nanoparticles for Photocatalytic Degradation</u>, Dr. Govindhasamy Murugadoss, Sathyabama Institute of Science and Technology, Dr. Amirthalingam Mohankumar, Dr. Sundararaj Palanisamy, Mr. Govindhan Thiruppathi, Dr. Sunitha Salla, Rajesh Kumar Manavalan, **Dr Anandhan Narayanasamy**, Dr. Dinesh Kumar Devarajan, Patent Application No: 20 2023 100 390; Filed date: 28.01.2023; German Patent-Filed.

ResearchSupervision/Guidance						
Program	of Study	Completed	Ongoing			
	PDF					
	Ph.D	04				
Research	M.Phil	22				
	PG	53	06			
Project	UG/ Others					

Publications

International		National		Others	
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals	
59	51	04	51		

CumulativeImpact Factor(asperJCR):322h-index:15i10 index:23TotalCitations:663

Publications

Thesis Evaluated : 08
Viva-voce Examiner : 08

FundedResearchProjects

Ongoing Projects:

S.No Agency		Period		ProjectTitle	Budget
3.110	Agency	From	То	Trojectriue	(Rs.In lakhs)
1	RUSA- 2.0 (Phase- II)	Sep 2022	Sep 2023	Advanced Materials in Sustainable Energy and Sensors.	5.0

CompletedProjects:

C No	Aganay	Period		Duoi cotTitle	Budget
S.No	Agency	From	То	To ProjectTitle	
1.	AURF	Apr- 2017	Apr 2019	Fabrication and Characterization of Metalloid Absorber Introduced TiO ₂ Nanorod Thin Films for DSSCs Application.	
2.	MHRD- RUSA-2.O, Govt of India	Sep 2018	Sep 2020	Advanced Materials in Sustainable Energyand Sensors.	5.0

OtherFundReceivedasResearchMentor:

C N-	A	Per	iod		D d4					
S.No	Agency	From	То		Budget (Rs.In lakhs)					
Consul	Consultancy Projects:									
		Period								
S.No	Agency	Agency	Agency	Agency	Agency	Agency	Agency	Agency		Budget
		From	To		(Rs.In lakhs)					
Others	:									
		Per	iod							
S.No	Agency				Budget					
5.110	8,,	From	To		(Rs.In lakhs)					

DistinctiveAchievements / Awards

- 1. **Best paper presentation award** from National Conference on Materials for Energy and Environment (NCMEE-2012) organised by Department of Science and Humanities, Chendu College of Engineering and Technology, Zamin Endathur, Maduranthagam, Kanchipuram Dist. 6th April-2012.
- 2. Best Poster paper presentation award: from International Conference on Advanced Materials for Energy, Environmental and Biomeical applications-2024 (ICAMEEBA- 2024), organized by Department of Physics, Alagappa Government Arts College, Karaikudi. Poorani, A. Amali Roselin, K.P.Ganesan, K.Adhipathi Nachiyar, M.Bhuvana, L.Johnson, K. Karthiga, P. Sneha Jenifer, N.Anandhan, "Multiferroic Behavior of Bismuth Ferrite Thin Films: A Comprehensive Analysis."

Distinctive Achievements / Awards

- 1. Promising Research Award-2022, Alagappa University, Karaikudi.
- 2. Vallal Alagappar Research Recognition Award-2020, Alagappa University, Karaikudi.

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 17

 Organizing cum Website committee Member, International Conference on Nanoscience and Nanotechnology (ICONN-2010), organized by Department of Physics, FEAT, SRM University, Kattankulathur, Chennai during, 23-25th Feb-2010.

- 2. State level Workshop on Structure solving by Powder X-ray diffraction (SLWSSP-XRD 2011), Department of Physics, Alagappa University, Karaikudi during 26-27, July-2011.
- 3. Organizing Committee Member "International Workshop on Advanced Energy Materials (IWAEM-2012)" organized by the School of Physics, Alagappa University, Karaikudi, India during 9-10, February 2012.
- 4. Organizing committee Member National Science day programme at Department of Physics in Feb' 28th, 2012.
- 5. Organized Village Placement Programme at Mathur Village, 2010 and Kundrakudi, 2014.
- 6. Organizing Committee member National Workshop on Characterization Techniques (NWCT-1, 2012)" 24 & 26, March 2012.
- 7. Organizing Committee member National Workshop on Characterization Techniques (NWCT-2, 2013)" 24 & 26, March 2013.
- 8. Organizing Committee member International Workshop on Advanced Materials-2014 (IWAM-2014)" 20-21 March 2014.
- 9. Organizing Committee member National Seminar on Recent Advancements in Frontier Areas of Materials Science, 23-24, March, 2016.
- 10. Organizing secretary, Business Oriented Hands-on Training on Analytical Instrumentations, during 2-3 March 2017.
- 11. Organizing secretary, A Special Lecture on Non Destructive Tests (NDT) used in Industries on 6th March 2017.
- 12. Organized National Conference on Futuristic Materials (NCFM-2017), 27-28 March 2017.
- 13. Organizing Committee member Business oriented Analytical Research and Development (BOARD), 31st Jan and 1st Feb-2017.
- 14. Organizing Committee member International Conference on Momentous Role of Nanomaterials in Renewable Energy Devices (ICMNRE 2018), 1 2 March 2018.
- 15. Organizing Committee member National Conference on Advanced Materials for Sustainable Energy and Sensors Futuristic Materials (NCAMESES-2019), Organized by Department of Physics, Alagappa University, Karaikudi on 20-22th Mar- 2019.
- 16. Organizing Committee member International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019), during Sept 16-17,2019, Organized by Department of Physics, Alagappa University, Karaikudi-3, Tamil Nadu, India.
- 17. Organizing Committee member International Virtual Conference on Recent Trends in Energy Material (INCRTEM-2020), during Sept 09-11,2020, Organized by Department of Physics, Alagappa University, Karaikudi-3, Tamil Nadu, India.

EventsParticipated

Number of Conferences/Seminars/Workshops: 33

List of Research Work Shops Participated: 25

1. XIth Research Methodology Workshop organized under the auspices of Prof. K.S.Sonchalam, Endowment in the Department of Economics, Annamalai University,

- during Nov.13-17, 2000.
- 2. **National Workshop on Micro and Nanotechnology –Advances and Implications** held at Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, Kanchipuram on Mar 21st-22nd 2008.
- 3. **Workshop on Nanostructured Materials**, organized by Department of Nuclear Physics, University of Madras, Guindy Campus, Chennai during Jul.4-5th -2008.
- 4. **Advanced Level International Workshop on Nanoscience and Technology**, organized by Department of Physics, Anna University, Chennai during Feb23rd -27th -2009.
- 5. National Workshop on Emerging Research Trends in thin film and Nano Technology, Conducted by Department of Physics, Government College of Technology, Coimbatore on3rd –Oct-2009.
- 6. **Second National Workshop on Engneering Materials and Applications** organized by Department of Mechanical Engineering Vinayaga Mission University, Chennai duringDec-2nd on3rd Dec-2009.
- 7. **National Workshop on Scanning Electron Microscope** organized by Centralized Instrumentation and Services Laboratory, Department of Physics Annamalai University, Annamalai Nagar, Chidambaram on 5th Mar-2010.
- 8. **National Workshop on Electroanalytical Techniques** organized by Department of Industrial Chemistry, Alagappa University in Association with SINSIL INTERNATIONAL In Co-operation and CH Instruments, Inc.USA, Karaikudi, during 11th-13th Oct-2010.
- 9. 4th INUP (Indian Nanoelectronics User's Programme) Familiarization Workshop" International Winter school on Nano-scale Materials and devices (IWNMD 2010)" organized by Centre for Nanoscience and Nanotechnology, IIT Bombay and Cambridge University during 13-17th Dec- 2010.
- 10. **International Workshop on Advanced Energy Materials (IWAEM-2012)** organized by School of Physics, Alagappa University, Karaikudi, during 9th and 10th Feb-2012.
- 11. One Day Workshop on Principle & Practice of Advanced EPR Spectroscopy organized by Central Instrumentation Facility, CSIR- Central Electro Chemical Research Institute (CSIR-CECRI) Karaikudi during 19th March-2012.
- 12. **National Workshop on Characterization Techniques (NWCT-1,2012)** organized by School of Physics, Alagappa University, Karaikudi, during 24th and 26th Mar-2012.
- 13. **National Workshop on Expansion and Enrichment of Distance Learning (EEDL-2012)** organized by Directorate of Distance Education, Alagappa University, Karaikudi, during 27th and 28th Mar-2012.
- 14. UGC Sponsored National Workshop " Dynamics of Research Methodology (Multi Discipline)", organized by UGC-Academic Staff College, Pondicherry University, Puducherry, during Aug 9th to Aug 10th 2012.
- 15. **National Workshop on Advanced Thin film Techniques (WATT-2012)** organized by Centre for Nanoscience and Technology, Sathyabama University, Jeppiar Nagar, Chennai-119,during 1st -3rd Nov-2012.
- 16. Structure and Thermodynamics of Emerging Materials (STEM-2012) "BRNS Theme Meeting on Challenges and Issues in Surface Modification, Thin Films & Coatings" Organized by Indira Gandhi Centre for Atomic Research , Kalpakkam and Indian Istitute of Metals, Kalpakkam during 5-6 Nov-2012.
- 17. **Workshop on Theoretical Physics**, Organized by Department of Physics, Bharathiar University, Coimbatore-641 046 during 17-20 Dec-2012.
- 18. **National Workshop on Materials Chemistry for Future Industrial Development** (**MATCH FIND-2017**) Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, during 6-7th Jan 2017.
- 19. **One-day workshop on Advanced Functional Materials (FUNMAT-2017)** with theme on polymers for Electrochemical Applications Organized by SAEST-CSIR-CECRI,

- Karaikudi on 22nd May, 2017.
- 20. **One-day Workshop on Technical and shortly writing**, 14th February 2019. Sponsored by RUSA 2.0 Scheme., Organized by Department of Library and Information Sciences, Alagappa University, Karaikudi.
- 21. One-day Design and Development of MOOCs for the Faculty Members of Alagappa University and Affiliated Colleges, 8th November 2018.
- 22. One Week National Workshop on "Applications of Radiation and Radioisotopes in Industry and Materials Science" Sponsored and Supported by TEQP-III, Govt.of India, New Delhi. Organized by Department of Physics, National Institute of Technology, Warangal, Telungana, India during 26th 30th November, 2018.
- 23. **Two days International Workshop on Biomedical Applications in Translational Research (BATR-2019),** 06-07th June-2019. Sponsored by RUSA 2.0 Scheme, Jointly Organized by Department of Biomedical Sciences & Health Care Centre, Alagappa University, Karaikudi in Association with Semmelweis University, Budapest, Hungary.
- 24. **Three days Workshop on Research Methods and LaTex,** Organized by Technical and Writing Centre, Alagappa University, Karaikudi, during 24th to 26th June, 2019.
- 25. **Three days** Faculty Development Programme on "Advanced materials for energy conversion & storage: Fundamentals to device fabrication" Organized by CSIR-CECRI Karaikudi during December 19-21, 2022.

List of National / International Conferences Participated: 02

- 1. State level Seminar on The role of Spectroscopy in the recent trends in Pollution Monitoring, organized by the PG and Research Department of Physics, TBML College, Porayar from Mar 18th- 20th 1999.
- 2. National Conference on Advanced Functional Materials (NCAFM-2008), organized by Department of Physics, SRM University, Chennai, during Feb.15th and 16th -2008.

Training Programs Participated: 06

- **1.** Participated and completed Hands-on Training (Thin film coatings techniques and Surface Modification) provided in the 4th INUP (Indian Nanoelectronics User's Programme) Familiarization Workshop" International Winter school on Nano-scale Materials and devices (IWNMD 2010)" organized by Centre for Nanoscience and Nanotechnology, IIT Bombay and Cambridge University during 13-17th Dec- 2010.
- **2.** Participated and completed Hands-on Training programme on Thin film coating & Characterisation Techniques "DC/RF Magnetron sputtering and Thermal Evaporation Technique" organized by Sathyabama University, Chennai during 24-25th Feb 2012.
- **3.** Participated and completed Structure and Thermodynamics of Emerging Materials (STEM-2012) BRNS "Theme Meeting on Challenges and Issues in Surface Modification, Thin films & coating" organized by IGCAR, Kalpakkam and Indian Institute of Metals, Kalpakkam Chapter during 5-6th Nov- 2012.
- 4. Participated and completed 21 days residential training program equivalent to UGC Refresher course on "University and PG College MSc Teachers Training Program In Physics" supported and approved by MHRD, Govt.of India under 'Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching' Organized by Centre of Excellence and Mathematics Educations, Indian Institute of Science, Challakere

Campus, Kudapura, Karnataka, from 7th June 2018 to 27th June 2018.

- **5.** One-week Short term training Programme on "Introduction to Smart Materials With Energy Harvesting Application" on 02^{nd} -7th September-2018, organised by Department of Applied Mechanics, IIT Madras, Chennai.
- **6.** A Two-Week FDP on "Synthesis and Characterization of Nano materials" Funded by AICTE and TEQIP-III from 4th -16th November 2019 to be held by Centre for Nano Science and Technology (CNST), Institute of Science and Technology (IST), Jawaharlal Nehru Technological University, Hyderabad.

OverseasExposure/Visits

• ----NIL----

Membership

Professional Bodies

- 1. Life Member: Microscopy and Analysis
- 2. Life Member: Indian Physics Association
- 3. Life Member : Solar Energy Society of India (SESI)
- 4. Life Member: Indian Association of Physics Teachers (IAPT)
- 5. Member: Indian Science Congress Association.
- 6. Life Member: Society for Advancement of Electrochemical Science & Technology (SAEST).

Editorial Board

- 1. Proceedings of the National Conference on FUTURISTIC MATERIALS (NCFM-2017).
- 2. Souvenir of the International Conference on MOMENTOUS ROLE OF NANOMATERIALS IN RENEWABLE ENERGY DEVICES (IC MNRE-2018)
- 3. Advanced Materials for Sustainable Energy and Sensors Futuristic Materials (NCAMESES-2019),
- 4. International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019),
- 5. International Virtual Conference on Recent Trends in Energy Material (INCRTEM-2020), during Sept 09-11,2020,
- 6. 25th National seminar on Crystal growth and applications (IACG).

Others

Invited Reviewer in Referred Journals

- 1. Advanced Materials Letter
- 2. Applied Nanoscience
- 3. Catalysis Today

- 4. Chinese Optics Letters
- 5. International Research Journal of Agricultural Science and Soil Science (IRJAS)
- 6. Journal of Civil Engineering and Construction Technology
- 7. Journal of Materials Science: Materials in Electronics (JMSE)
- 8. Journal of Optoelectronics and Advanced Materials
- 9. Potential Reviewer for reviewing articles (Category K, F. I (Thin films, Superconductivity, magnetism and spintronics)) in 60th DAE Solid State Physics Symposium is hold at Amity University UP, Noida, Uttar Pradesh, India during December 21-25, 2015
- 10. Results in Physics
- 11. Solar Energy
- 12. Spectrochimica Acta Part A
- 13. Journal of Alloys and Alloy Compounds
- 14. Journal of Materials Science
- 15. Journal of Solid State Electrochemistry
- 16. Electrochemica Acta
- 17. Brazilian Journal of Physics

Advisory Board

Year/Period	Name of the BoS/Administrative Committee /	Role
	Academic Committee	
2010 to Till	Board of studies (BoS) to frame M.Sc (Physics)., and	Member:
Date	M.Phil (Physics)., syllabi, Alagappa University,	
	Karaikudi.	
2022-23	Member: Board of studies to frame B.Sc (Physics),/	Member
	M.Sc., Physics syllabi, Alagappa University,	
	Karaikudi.	

Academic Bodies in Other Institutes/Universities

Year/Period	Name of the BoS/Administrative Committee /	Role
	Academic Committee	
2019 to Till	Doctorial Committee Member:	Doctorial
date	Thiruvalluvar University	Committee Member:
		1,10meer.
2019 to Till	Doctorial Committee Member: Doctorial	Doctorial
date	Committee Member:,Annamalai	Committee
	University,	Member:
2019 to Till	Doctorial Committee Member: , Anna	Doctorial
date	University,	Committee
		Member:
2019 to Till	Doctorial Committee Member:	Doctorial
date	Sahiyabhama Institute of Science and	Committee
	Technology, Chennai.	Member:
2019 to Till	Doctorial Committee Member: ,	Doctorial
date	Manonmaniam Sundaranar University,	Committee
	Tirunelveli.	Member:

Ph.D. Thesis Guided

1. No.of Ph.D., Thesis evaluated : 04

2. No.of Ph.D., Public Viva-Voce Examination : 04

conducted

S.No	Name of the Scholar	TitleoftheThesis	Year of Completion
1	Dr.A.Amali Roselin	Rare Earth and Transition Metal Substituted Bismuth Titanate Thin Films For Sensing Applications.	2022
2	Dr.K.P.Ganesan	Deposition and Charectization of Different Transcition Metal (TM-Fe Co. nd. Mn.) Jons	2021
3	Dr.R.Pannerselvam	Synthesis and Characterization of Hydroxyapatite Nanocomposite Materials for Biomedical Application.	2021
4	Dr.T.Marimuthu	Development of Dye Sensitized Solar Cell Thin Films Using Chemical Solution Technique.	2019

ListofResearchArticles / RecentPublications

Sl.No	Authors/Title of the paper/Journal	Impact Factor
1.	L.Bruno Chandrasekar, M.Divya Gnaneswari, A.Murugeswari, P.Shunmuga Sundaram, N.Anandhan, M.Karunakaran, Preparation, Characterization, and antibacterial activity of Ni, Sn co-doped ZnO nanoparticles: Effect of Sn doping concentration, Journal of Crystal Growth, 2024, 127660 https://doi.org/10.1016/j.jcrysgro.2024.127660. (March 09, 2024), I.F.: 1.8	1.8
2.	L.Bruno Chandrasekar, N.Anandhan , A.Murugeswari, P.Shunmuga Sundaram, M.Karunakaran, M.Divya Gnaneswari, Influence of Gd-doping on physical properties of Zn1-x-yNiyGdxO nanoparticles and its antibacterial activity, Indian Journal of Physics, Ref.: Ms. No. INJP-D-23-01264R1, Acceped for Publication, mail received Dt. 07 Mar 2024. I.F.: 2.0	2.0
3.	Rahul Varma, Sugumar Vasudevan, Stella Chelladurai, Anandhan Narayanasamy , Synthesis and Physicochemical Characteristics of Chitosan Extracted from Pinna deltoids, Letters in Applied NanoBioScience., 11(4), 2022 , 4061 – 4070, https://doi.org/10.33263/LIANBS114.40614070 (IF.:).	
4.	Arockiam Amali Roselin, Rajendran Karkuzhali, Issac Joseph PanneerDoss, Narayanasamy Anandhan, Gopalakrishnan Gopu, Ganesan Sivakumar,	2.307

	Karupanan Periyanan Ganesan, Ramaswamy Paneerselvam, A-Site Doped Aurivillius Layered Perovskite Thin Film (Bi _{4-x} Dy _x Ti ₃ O ₁₂) Electrode for Mercury Ions Sensor, Chemistry Select, 6, 9894 –9903 (2021), (doi.org/10.1002/slct.202004643), (IF.: 2.307).	
5.	Neethu Mohan, Sugumar Vasudevan, Paramasivam Chellamuthu Ranganathan, Anandhan Narayanasamy , Geochemical and elemental characterization of rostrum and alveolus parts of Belemnite fossil from the Late Cretaceous formation, Tamil Nadu, India, Arabian Journal of Geosciences 14(18), 1905, 2021 (DOI:10.1007/s12517-021-08272-z), (IF.: 1.985).	1.985
6.	A Amali Roselin, R Karkuzhali, N Anandhan, G Gopu, Bismuth titanate (Bi ₄ Ti ₃ O ₁₂ , BTO) sol–gel spin coated thin film for heavy metal ion detection, Journal of Materials Science: Materials in Electronics (2021) (https://doi.org/10.1007/s10854-021-06937-9), (IF.: 2.779).	2.779
7.	S Prabhu, C Balaji, M Navaneethan, M Selvaraj, N Anandhan , D Sivaganesh, S Saravanakumar, Periyasamy Sivakumar, R Ramesh," Investigation on mesoporous bimetallic tungstate nanostructure for high-performance solid-state supercapattery", Journal of Alloys and Compounds.,875(15)2021,160066.(https://doi.org/10.1016/j.jallcom.2021.160066), (IF.: 6.2).	6.2
8.	K. P. Ganesan, A. Amaliroselin, I. Joseph Panneer Doss, N. Anandhan , R. Ramesh, S. Prabhu, G. Sivakumar, R. Panneerselvam, High-performance energy storage of highly saturated ferromagnetic cobalt-doped cuprous oxide thin films, Journal of Materials Science: Materials in Electronics, 1-19 (2021) (DOI: 10.1007/s10854-021-05463-y) (IF.: 2.779).	2.779
9.	R.Panneerselvam, N.Anandhan , G. Gopu, A.Amali Roselin, P.Ganesan, T.Marimuthu. Impact of different transition metal ions in the structural, mechanical, optical, chemical-physical and biological properties of nanoHydroxyapatite, Applied Surface Science., (Ms. Ref. No.: APSUSC-D-19-06910R1, 2019. DOI: 10.1016/j.apsusc.2019.144802 (IF.: 6.7).	6.7
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- 1. Green Synthesis of Hydroxyapatite Nanoparticles using Brassica Nigra Seed Extract, R. Preethi, A. Amali Roselin, N. Anandhan, C.Chandraleka, M. Muthukumar, P.Abinaya, S. Aiswarya, I. Praveen, J. Saradha, P. Sneha.
- 2. SILAR Technique Synthesized Cobalt Sulfide Thin Film for Supercapacitor Application M. Murugaiyaa, A. Amali Roselin, N. Anandhan, G. Gopu, R. Karkuzhali, M.Muthukumar, P. Abinaya, S. Aiswarya, I. Praveen, J. Saradha, P. Sneha. (Presented these two papers presented in 25th National seminar on Crystal growth and applications. Organized by Department of Physics, Alagappa University, Karaikudi, in Association with Indian Association for Crystal Growth (IACG), During 21 23 June 2023.).

2019

- 3. Ferromagnetic behaviour of Sm^{3+} and Mn^{3+} co-substituted in $Bi_4Ti_3O_{12}$ perovskite thin films, A.Amali Roselin, **N.Anandhan**, R.Panneerselvam, K.P.Ganesan
- 4. The structural, morphological and optical properties of C_{u2}O thin films by electrodeposition technique: Effect of different solution pH, K.P.Ganesan, **N.Anandhan**, A.Amaliroselin, R.Paneerselvam, Isaac Joseph Panneer Doss, T.Marimuthu

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- 6. Optical Characterization And Synthesis of Ag/Nio Composite Nanoparticles, R.Gokilan, N.Anandhan, G.Gopu, A. Amali Roselin, K.P.Ganesan, T.Marimuthu, R.Panneerselvam, A.Malar, K.Suguna, , S.Vinothini, D.Jonshi, M.Muthukumar
- 7. Sesquioxde doped copper oxide thin films dy dip coating technique, S.Vinothini, **N.Anandhan**, G.Gopu, A. Amali Roselin, K.P.Ganesan, T.Marimuthu, R.Panneerselvam, A.Malar, K.Suguna, R.Gokilan, S.Vinothin^{i,} M.Muthukumar
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- 9. Structural characterization of biochemical bath deposited Albumin/Vanadium Oxide matrix thin films, K.Suguna, N.Anandhan, G.Gopu, A. Amali Roselin, K.P.Ganesan,
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2018

- 11. Luminescence and electrical properties of Samarium modified Bismuth titanate ferroelectric thin films for optical waveguide devices, A.Amali Roselin, **N. Anandhan**, K.P. Ganesan,
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- 15. Synthesis and charectrization of Cobalt and Zinc doped Hydroxyapatite nanopowder by Co-precipitation method, A.Sharmila Devi, **N.Anandhan**, R.Paneerselvam, K.P.Ganesan, V.Dharuman
- 16. Role of Spin coating rate on the structural, Luminescent and Optical properties of Bismuth Titanium Oxide Thin films, A.Amali Roselin, **N.Anandhan**, M.Karthikeyan,

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- 18. Phase transformation analysis of Nanostructured TiO₂ thin films synthesised by electrodeposition Technique, M.Karthikeyan, **N.Anandhan**, A.Amali Roselin, V.Dharuman.
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- 20. Synthesis and structural analysis of Al doped ZnO thin films by Chemical bath deposition method, M.Mohanapriya, **N.Anandhan**, A.Amali Roselin, M.Karthikeyan, R.Paneerselvam, K.P.Ganesan.
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- 22. Microstructural analysis of Iron doped Hydroxyapatite nanopowder, R.Paneerselvam, **N.Anandhan,** K.P.Ganesan
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- 25. Structural and Optical studies on Sol-Gel derived titanium dioxide thin films, R.Kaliammal, N.Anandhan, A.Amali Roselin, M.Karthikeyan. (Presented these <u>eleven papers</u> in National Conference on Futuristic Materials (NCFM-2017), Organized by Department of Physics, Alagappa University, Karaikudi on 27-28th Mar-2017).
- **26.** Growth and Characterization of Chemical bath Deposited Plumbous Oxide Thin films. V.Shanmuga Priya, **N.Anandhan.**
- 27. Influence of coating cycles on optical Parameters of ferroelectric Semiconductor thin films.A. Amali Roselin, **N.Anandhan**, M.Karthikeyan, V.Dharuman.
- 28. Synthesis and appraisal of zinc substituted Hydroxyapatite nano nanopowder. R.Panneerselvam, **N.Anandhan**, T.Marimuthu, K.P.Ganesan
- **29.** Electrochemical synthesized different morphologies of zinc oxide thin films on fluorine tin oxide substrate, T.Marimuthu, **N.Anandhan**
- 30. An evaluation of optical and physical properties of Cu₂O thin films prepared by electrodeposition method, K.P.Ganesan, N.Anandhan, T.Marimuthu, R.Panneerselvam (Presented these five papers in National Seminar on Advanced materials Research (AMR-17) Organized by Department of Physics, Alagappa University, Karaikudi on 19 Jan. 2017).

2016

- 31. Fabrication and Electron kinetic analysis of Ce:Zn/CdS thin films Prepared by two step chemical methods of dye sensitized solar cell application,
- T.Marimuthu, N.Anandhan.
 - (Presented the paper Nineteenth National Convention of Electrochemists (NCE-19) organized by Society for Advancement of Electrochemical Science and Technology (SAEST), Karaikudi in Association with CSIR-CECRI, Karaikudi and NIT Tiruchirapalli, India on 28th-29th March-2016).
- 32. Effect of annealing temperature on structural, morphological, vibrational and optical properties of the ZnO nanowires, T.Marimuthu, **N.Anandhan**.

- 33. Radio Frequency Magnetron Sputtered Hydroxyapatite Thin films coated at ambient Temperature, R.Panneerselvam, **N.Anandhan**, K.P.Ganesan, T.Marimuthu.
- 34. Potentiostatically grown Cu₂O Thin film at different annealing Temperature, K.P.Ganesan, **N.Anandhan**, T.Marimuthu, R.Pannerselvam, P.Sami.

(Presented these papers National Conference on Advanced Materials (NCAM-2016) organized by School of Physical Science, St. Joseph's College, Tiruchirapalli, India on 7th Oct-2016).

2014

- 35. An Effect of Supporting electrolyte based CdO polycrystalline thin film prepared by Electrodeposition method, M.Mumoorthi, **N.Anandhan**, T.Marimuthu, G.Ravi, T.Sugunya.
- 36. Studies on pure and Ce doped TiO₂ thin films prepared by sol-gel technique, T.Marimuthu, **N.Anandhan**, S.Rajendran, M.Mummoorthi, M.Vidhya,
- 37. Growth and Characterization of Sm₂O₃ thin films by spin coating technique, A.Amali Roselin, N. Anandhan, G. Ravi, M. Mummoorthi, T. Marimuthu. (Presented these three papers National Conference on Material for Energy Storage and Conversion, organized by Centre for Scientific and Applied Research, PSN College of Engineering and Technology, Tirunelveli, Tamilnadu, during 4-5 September-2014).
- 38. Influence of Substrate Temperature on Structural, Optical and Electrical Properties of NiO Thin film, V.Gowthami, M.Meenakshi, **N.Anandhan**, C.Sanjeeviraja.
- 39. Structural and Optical Properties of WO₃ and (WO₃)0.99(V₂O₅)0.01 Thin films Deposited under RF Magnetron Sputtering Process, M.Meenakshi, **N.Anandhan**, V.Gowthami, C.Sanjeeviraja.
 - (Presented these two papers National Conference on Advanced Functional Materials (NCAFM-2014), organized by Department of Physics, Bharathiar University, Coimbatore, Tamilnadu, during 30-31 January-2014).

2012

- 40. An Effect of Complexing Agents in CuSnS Thin films at constant bath Temperature. B.Revathi, **N.Anandhan**, G.Sivakumar, S.Barathan, C.Sanjeevi Raja, A.Rafikraja and G.Ravi.
- 41. Influences of Time intervals during CdS Thin films deposition, A.Rafikraja, N. Anandhan, S.Barathan, C.Sanjeevi Raja, G.Sivakumar, B.Revathi, and G.Ravi. (Presented these two papers in the National Conference on Materials for Energy and Environment (NCMEE-2012), Department of Science and Humanities, Chendu College of Engineering and Technology, Zamin Endathur, Maduranthagam, Kanchipuram Dist. 6th April-2012).
- 42. Spectroscopic and Microscopic Analysis of Different Cd sourced CdS thin films, **N. Anandhan**, A.Rafikraja, C.Sanjeevi Raja, S.Barathan and G.Sivakumar. (*Presented the paper in the National Conference on Physics of New Materials (NCPNM*-

2012), Department of Physics, Noorul Islam University, Kumaracoil, Thucklay, Tamil

Nadu. 20-21 April-2012).

43. A study on the role of mineral contents in water in silica fume admixtured cement paste. **N.Anandhan**, S.Barathan, G.Sivakumar, D.Govindarajan and K.Raghu.

(Presented the paper in the National Conference on Emerging Materials and Technologies for India 2020 held between Jan 24th-25th 2008, Organized by Department of Metallurgical and Materials Engineering, National Institute of Technology, Trichy).

- 44. Spectroscopic and setting time characterization of Silica Fume Admixtured Cement Paste, N.Anandhan, S.Barathan, G.Sivakumar, D.Govindarajan and B.Gobinath (Presented the paper in the National Conference on Recent Advances in Physics held between Feb1st -2 nd 2008, Organized by Indian SpectroPhysics Association (ISPA) and SpectroPhysics Research Laboratory, Department of Physics, Pachiyappa's College, Chennai-600 030).
- 45. Superplasticiser Admixtured Indian Cement Paste A Magnetic Susceptibility Study. **N.Anandhan**, S.Barathan, G.Sivakumar, D.Govindarajan and B.Gobinath (*Presented the paper in the National Conference on "Frontiers of Chemistry-2008" held between Jan 24th-25th 2008 at SRM University, Kattankulathur, Chennai*). **[Full Paper]**
- 46. Magnetic and Mössbauer Spectroscopic Analysis of SF doped OPC Nano-Composite. **N.Anandhan**, P.Veluchamy, G.Sivakumar and B.Gobinath and S.Barathan, (*Presented the paper in the National Seminar on Nano Science and Technology-Challenging Ahead (NSTCA-2008) held on Aug 19th 2008, Organized by Department of Chemistry, Vellamal Engineering College, Chennai).*

2006

- 47. Silica fume admixtured cement paste hydration-A magnetic study. **N.Anandhan**, G.Sivakumar, D.Govindarajan, K.Raghu, P.Veluchamy and S.Barathan. (*Presented the paper in National Conference on Recent advances in Materials Science held between Feb.16*th-17th 2006 at Department of Physics, Periyar University, Salem).
- 48. Susceptibility study of Sulfonated Naphthalene Formaldehyde admixtured cement paste. **N.Anandhan**, S.Barathan, D.Govindarajan, G.Sivakumar and K.Raghu. (Presented the paper in National Seminar on Advances in Materials Science (NSAMS-2006) held between Mar.27th-28th 2006 at Manonmaniam Sundaranar University, Tirunelveli)

2004

- 49. A Ultraviolet studies of some Chemical admixture cement solutions. K.Raghu, D.Govindarajan, G.Sivakumar, **N.Anandhan** and S.Barathan.
- 50. Magnetic studies of some Chemical admixtured cement paste. **N.Anandhan**, D.Govindarajan, G.Sivakumar, K.Raghu and S.Barathan. (Presented these two papers in the UGC sponsored National Seminar on Emerging Trends in Molecular Physics held during March 8th-9th 2004, Department of Physics, Annamalai University, Annamalai Nagar).

2003

51. Magnetic Studies of some Admixtured cement pastes. N.Anandhan, K.Raghu, D.Govindarajan,

G.Sivakumar, and S.Barathan.

(Presented the paper in the National Seminar on Chemical Physics, during 10-11 March 2003, Organized by Department of Physics, Annamalai University, Annamalai Nagar).

LIST OF PUBLICATIONS IN <u>INTERNATIONAL CONFERENCES</u>: 51

2024

1. L. Johnson, A. Amali Roselin, K.P.Ganesan, K.Adhipathi Nachiyar, M.Bhuvana, K. Karthiga, P. Poorani, P. Sneha Jenifer, G. Gopu, **N. Anandhan**, An Optical Properties Of Alpha Manganese Oxide Thin Films Synthesized Using Spin Coating Technique.

This article was presented in the International Conference on Frontier Areas In Chemical Technologies (FACTS-2024), organized by Department of Industrial Chemistry, Alagappa University, Karaikudi, during 22nd - 23rd March 2024.

- 2. Exploring Different Characterization Techniques to Analyze the Structural and Optical Properties of Pure Tin Oxide Thin Film, K. Adhipathi Nachiyar, A. Amali Roselin, K.Ganesan, M. Bhuvana, L. Johnson, K. Karthiga, P. Poorani, P. Sneha Jenifer, R. Preethi, **N. Anandhan**
- 3. The influence of Chromium doping on the structural and optical properties of SnO₂ nanoparticles, M. Bhuvana, A. Amali Roselin, K. Ganesan K. Adhipathi Nachiyar, L. Johnson, K. Karthiga, P. Poorania, P. Sneha Jenifer, **N. Anandhan**
- 4. The Properities and Characterization of Nickel Oxide Thin Film Using Chemical Bath Deposition Technique, K. Karthiga, A. Amali Roselin, K.Ganeasn, K. AdhipathiNachiyar, M. Bhuvana, L. Johnson, P. Poorani, P. Sneha Jenifer, R. Preethia, **N. Anandhan**
- Multiferroic Behavior of Bismuth Ferrite Thin Films: A Comprehensive Analysis
 P. Poorani, A. Amali Roselin, K.P.Ganesan, K.Adhipathi Nachiyar, M.Bhuvana, L.Johnson, K. Karthiga, P. Sneha Jenifer, N.Anandhan
 - (*These four paper presented in the* International Conference on Advanced Materials for Energy, Environmental and Biomeical applications-2024 (**ICAMEEBA-2024**), organized by Department of Physics, Alagappa Government Arts College, Karaikudi during 01-02 March 2024.)
- 6. Extensive Green Synthesis of Vanadium Oxide Nanoparticles Using OcimumTenuiflorum Leaves, P. Sneha Jenifer, A. Amali Roselin, C. Chandraleka, K. Adhipathi Nachiyar, M. Bhuvana, L.Johnson, K. Karthika, P. Poorani, R. Preethi, N. Anandhan
 (This paper presented in the 5th International Conference on Recent Trends in Microbiology (RTM-2024), during February 26-27th, 2024, Organized by Department of Microbiology, AlagappaUniversity, Karaikudi 630 003, India).

2023

- 7. Extensive investigation of delafossite conducting oxides p-type CuAlO₂ thin film via chemical solution deposition method, , P. Abinaya ,A.Amali Roselin,M.Muthukumar, J.Saradha, P.Sneha, P.Abinaya,I.Praveen, M.Murugaiya, G.Gopu, **N.Anandhan**,
- 8. Facile Green synthesis of Vanadium (V) oxide nanoparticles using Daucus carota extract, S.Aiswarya, A.Amali Roselin, M.Muthukumar, J.Saradha, P.Sneha, P.Abinaya, I.Praveen, M.Murugaiya, G.Gopu, **N.Anandhan.**

(These two papers presented in the International Conference on FACTs 2023, during February 16-18th, 2023, Organized by Department of Industrial Chemistry, Alagappa

2019

- 9. Photoluminescence studies of Rare earth metal Praseodymium modified Bismuth titanate thin films, A.Amali Roselin, **N. Anandhan**, G.Gopu, M. Muthukumar, K.P. Ganesan, R. Paneer Selvam
- 10. An influence of pH solution on structural, morphological and optical, properties of Cu₂O thin films deposited for solar cell applications by electrochemical method, K.P.Ganesan, N.Anandhan, G.Gopu, A.Amaliroselin, R.Panneerselvam, T.Marimuthu,
- 11. Influence of TiCl₃Doped Mono Chalcogenide thin film Prepared by Electrodeposition Technique, M.Muthukumar, **N.Anandhan**, G.Gopu, A.Amali Roselin, K.P.Ganesan, R.Panneerselvam,
- 12. Impact of Zn (II) incorporation on the Structure, Physico-Chemical and biological properties of wet chemically synthesized NanoHydroxyapatite, R.Panneerselvam, **N.Anandhan**, V.Sugumar, K.P.Ganesana, A.Amali Roselin, T.Marimuthu

(These four papers presented in the International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019), during Sept 16-17,2019, Organized by Department of Physics, Alagappa University, Karaikudi-3, Tamil Nadu, India).

- 13. Synthesis and investigation of Fe (II) incorporated nanoHydroxyapatite, R.Panneerselvam, N.Anandhan, G.Gopu, V.Sugumar, A.Amali Roselin, K.P.Ganesan (The paper presented in the International Conference on Functional Materials for Bioenergy, Green Technology, and Environmental Sustainability-FMGES 2019), on August 08th, 2019, Organized by Department of PG Department of Physics and Chemistry in Association with Indian Science and Technological Association and Elaveni Organization, Trinity College for Women (Arts and Science), Namakkal-637 00, Tamil Nadu, India).
- 14. Extraction and Characterization of Chitin and Chitosan from the horse mussel Modiolus modiolus, Rahul Verma, Sugumar V, Anandhan N.
- 15. Extraction and Characterization of Chitin and Chitosan from the Pen Shell Pinna bicolorgmelin,1791, Sudatta, B.P, Nigariga, P, Sugumar, V, N. Anandhan.
 (These two papers presented in the 2nd International Conference on Molecular Physiology, Therapetics and Experimental Medicine MP-TEM-2019), during July 24-25t^h, 2019, Organized by Department of Animal Health and Management, Alagappa University, Karaikudi-3, Tamil Nadu, India).
- 16. Rare earth doped Bismuth titanate perovskite thin film as electrochemical sensor for the detection of heavy metals, A.Amali Roselin, **N.Anandhan**, K.P. Ganesan, R. Paneerselvam.
- 17. Facile wet chemical synthesis of metal ions (Fe^{2+,} Mn²⁺ and Co²⁺⁾ incorporated nano hydroxyapatite, R.Panneerselvam, **N.Anandhan,** K.P.Ganesan, T.Marimuthu, A.Amali Roselin.
- 18. Tuning the magnetic properties of electrochemically deposited on Cu₂O thin films by Fe incorporation, K.P.Ganesan, **N.Anandhan**, T. Marimuthu, R.Paneerselvam, A.Amaliroselin.

(These three papers presented in the International Conference on ICONN-2019), during January 28-30th, 2019, Organized by Department of Physics and Nanotechnology, Kattankulathur, Chennai, Tamil Nadu, India).

2018

- 19. Structural and Luminescence Properties of CdO Thin Film by Cathodic Electrodeposition Technique, M. Karthikeyan, N. Anandhan, A. Amali Roselin.
- **20.** Influence of thickness on surface texture and optical parameters of spin coated Bismuth titanate (Bi₄Ti₃O₁₂) thin films. A.Amali Roselin, **N. Anandhan.**
- 21. Selected morphological and Structural properties of Cu₂O thin films at elevated annealing Temperatures, K.P.Ganesan, **N.Anandthan**, T.Marimuthu, R.Paneerselvam, A.Amali Roselin,

(These three papers presented in the International Conference on ICMNRE-2018, during March 1-2^{ndh}, 2018, Organized by Department of Physics, Alagappa University, Karaikudi 630 003, India).

22. A Ternary system in High alumina Cement, R.Nithya, **N.Anandthan**, S.Barathan.

(This paper presented in the International Conference on New Materials & Aried Land (ICNMAL-2018), during March 15-16th 2018, Organized by Department of Physics, St.Joseph College of Arts and Science College, Cuddalore- 607001, India).

- 2017 23. Preparation and analysis of Thermoelectric thin films at different coating Cycles, A.Amali Roselin, **N.Anandhan**, R.Priyatharshini, M.Karthikeyan.
 - 24. A case study on sol-gel spin coated Rare earth Doped ZnO thin films, S.FathimaThaslin, **N.Anandhan**, A.Amali Roselin, M.Karthikeyan

(These two papers presented in the International Conference on FACTs 2017, during July 06-08th, 2017, Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi 630 003, India).

25. An impact on microstructural, morphological and optical properties of Cu₂O thin films at unique annealing temperature using electrodeposition.
K.P.Ganesan, N.Anandhan, R.Panneerselvam, P.Sami
(Presented this paper in International Conference on Materials and Technology-Synthesis, Processing and Applications (ICMTSPA-2107), organized Department of Physics, Sri S. Ramasamy Naidu Memorial College, Sattur, Virudhunagar-626 302, on 9th March 2017).

2016

- 26. Influence of Eosin Blue Dye on Electrochemically Synthesized ZnO Thin Films for DSSC Applications, T.Marimuthu, **N.Anandhan**, R.Thangamuthu, S.Surya.
- 27. Growth and characterization of chemical bath deposited plumbous oxide thin films" M. Karthikeyan, **N.Anandhan**, A.Amali Roselin, V.Shanmugapriya, G.Gopu, V. Dharuman, G. Ravi,

(These two papers presented in the International conference on Materials Science & Technology 01-04th Mar-2016, University of Delhi, Delhi 110007, India).

- 28. Preparation and Characterization of Nano Hydroxyapatite Powder by Wet Chemical Precipitation Route for Different Concentration, R.Panneerselvam, **N.Anandhan**, T. Marimuthu and K.P.Ganesan.
- 29. Effect of CTAB surfactant on crystal orientation, surface morphology and optical properties of electrochemically synthesized Cu₂O thin films. K.P.Ganesan, **N.Anandhan**, R.Panneerselvam, T.Marimuthu, P.Sami.
- *30.* Fabrication and Characterization of Copper Sulfide Thin Films for Energy Conversion and Storage Devices, T.Marimuthu, **N.Anandhan**.

(These three paper presented in International Conference on Functional Materials organized by Centre for Scientific and Applied Research PSN college of engineering and technology, Tirunelveli, India during 7-10, September 2016).

31. Temperature Dependent Anatase Titanium Dioxide Thin film Prepared by Electrodeposition Technique" M. Karthikeyan, **N.Anandhan**, V.Dharuman, G.Gopu, A. Amali Roselin, S. Viswanathan.

- 32. A novel Cobalt doped Dy₂O₃ nanoparticles Ssynthesized by co-precipitation method C.Suganya, **N.Anandhan**, M.Karthikeyan, V. Dharuman, G.Gopu, A. Amali Roselin, S.Viswanathan, J.Umadevi.
- 33. Structural and Morphological properties of polypyrrole doped Sb₂S₃ thin films, J.Umadevi, **N.Anandhan**, V. Dharuman, G.Gopu, M.Karthikeyan , A.Amali Roselin, C.Suganya, P.Rajeswari.
- 34. Effect of annealing temperature on structural and optical properties of BTO thin films for photocatalytic applications, A.Amali Roselin, **N. Anandhan**, G.Gopu, M. Karthikeyan.
- 35. Influence of Sm on structural and optical properties of Bi₂S₃ thin films using SILAR method, D.Janani, **N.Anandhan**, V.Dharuman, G.Gopu, M.Karthikeyan, A.Amali Roselin, K.P.Ganesan.
- 36. The roles of portic solvents on CdS thin films prepared by chemical bath deposition technique, K.Rajeswari, **N.Anandhan**, V. Dharuman, A.Amali Roselin, M.Karthikeyan, G.Gopu.
 - (These six paper presented in the International Conference on FACTs 2016, during March 21-23rd, 2016, Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi 630 003, India).
- 37. Effect of Polyvinyl Alcohol on Electrochemically Deposited ZnO Thin Films for DSSC Applications. T. Marimuthu, N. Anandhan. 61th DAE Solid state Physics Symposium, KIIT University, Bhubaneswar, December 26-30, 2016. [Full Paper in list of Publication]
 2015
- 38. Studies on structural, morphological and optical properties of electrochemically synthesized Ce doped ZnO thin film, T.Marimuthu, **N.Anandhan**, (Paper presented in the International Conference on Recent Advancements in Materials, organized by Department of Physics, Anna University, BIT Campus, Tiruchy, Tamilnadu, during 16th 17th Oct -2015).
- 39. Facile Synthesis of One dimensional ZnO Nanostructures for DSSC Applications, T.Marimuthu, **N.Anandhan**, Paper presented in International Conference on Condensed Matter & Applied Physics, organized by Department of Physics, Govt. Engineering College, Bikaner, Rajesthan, during 30-31st Oct-2015.
- 40. Synthesis and Characterization of Porous Structured ZnO Thin Film for Dye Sensitized Solar Cell Applications. T.Marimuth, **N.Anandhan**, M.Mummoorthi, V.Dharuman. Paper presented in 60th DAE-Solid State Physics Symposium Department of Atomic Energy, Amity University, Noida, India, during 21-25 Dec-2015.

2014

41. Structural, Morphology and optical Studies on ZnO thin film prepared by sol-gel Technique, T.Marimuthu, **N.Anandhan**, M.Mumoorthi.

(Presented the paper International Conference on Materials and Characterization Techniques-2014 (ICMCT-2014), during 10-12nd Mar-2014, organized by Centre for Crystal Growth, School of Advanced Sciences, VIT University, Vellore, Tamil Nadu).

42. Structural, Functional and Optical Studies on Ce Doped ZnO Nanoparticles. T.Marimuthu, **N.Anandhan**, G.Ravi, S.Rajendran,

(Presented the paper International Conference on Nonoelectronics Science & Technology, organized PG and Research Department of Electronics, Vasavi College, Erode, Tamilnadu, during 14th–15th Feb-2014).

2013

- 43. The formation of CdZnS thin film and its Charectrization. **N.Anandhan,**S.Senthil Kumar,V.Dharuman, J.Shankara Narayanan, T.Marimuthu, G.Ravi, G.Sivakumar. (Presented the paper International Conference on Recent Advances in Textile andElectrochemical sciences-2013 (RATES-13) during 21-23rd Mar-2013, organized by Department of Industrial Chemistry, School of Chemical Sciences, Alagappa University, Karaikudi).
- Structural and optical properties of Ni doped ZnO thin film prepared by sol-gel Method,
 R.Murugan, G.Vijayaprasath, T.Mahalingam, N.Anandhan, G.Ravi.
 (Presented the paper 58th DAE Solid State Physics Symposium during 17-21st Dec- 2013,organized by BARC, Thapar University, Patiala).

2012

45. Structural, Morphological and Band gap analysis of electron Beam Evaporated Nickel Oxide Thin films. V.Gowthami, **N.Anandhan** and C.Sanjeeviraja.

(Presented the paper International conference on research in condensed matter Physics (ICCMP–2012),1-3 October 2012,organized by the Department of Theoretical Physics, University of Madras, Chennai Tamil Nadu, India).

2011

46. Electroplated Cadmium Stannous Selenide Alloy Thin Films T.Mahalingam,G.Ravi, S.Dhanasekar,K.Satheesh Kumar and **N.Anandhan.**

(Presented the Paper International conference on Advanced Materials and Applications (ICAMA-2011), during 4-5th March -2011, Organized by Multifunctional Research Centre, Department of Physics, Department of Chemistry, Kalasalingam University, Tamil Nadu,India).

2010

47. Electrical conductivity and FTIR Spectroscopic studies on nano sized -silica fume admixtured Cement. N.Anandhan, G. Sivakumar, B.Shanthi and S. Barathan.

(The paper presented in the International conference on Nanoscience and Nano Technology (ICONN-2010) held on Feb-24th -26th -2010 at Department of Physics, FET, SRM University, Chennai, India). [Full Paper]

48. Effect of fly ash and different waters on type V cement hydration, K.Tiruppathi,S.Barathan,G.Sivakumar, and **N.Anandhan.**

49. DC Conductivity and Vibrational Spectroscopical analysis of nanosized silica fume admixtured cement, **N.Anandhan**, G.Sivakumar, B.Shanthi, and S.Barathan.

(Presented these papers in the International conference on Recent Frontiers in applied Spectroscopy (ICORFAS-2010) held on Sep-22 nd and 24th 2010 at Department of Physics, Annamalai University, Chidambaram, India).

2009

- 50. Electrical property of nano sized silica fume (20 nm) admixtured cement systems. **N.Anandhan**, G.Sivakumar, P.Veluchamy, B.Gobinath and S.Barathan.
- 51. Magnetic Susceptibility Study of 20 Nanometric Size Silica fume Admixtured CementPaste, N.Anandhan, D.Govindarajan, P.Veluchamy, B.Gobinath and S.Barathan.
 - 52. Determination of Ultrasonic pulse velocity and Elastic Property OPC-SF admixtured CementMortars, **N. Anandhan**, N.P. Rajamanee, J.K. Dattarteya, B.Shanthi and S. Barathan (*Presented these papers in the International conference on Functional Materials for advanced Technology (ICFMAT-2009) held on Jan 29th and 30th 2009 Organized by Materials Research Centre and Department of Physics, Vellamal Engineering College, Chennai, India).*

Orientation program/special courses participated and Completed hands-on-training: 08

- 1. Two- day course on **TESTING AND CHARACTERISATION OF MATERIALS** held on DEC-19th and 20th ,2009 at IIT-Madras, Chennai In Association with ASM International Chennai Chapter & Kalpakkam-Chennai HRD Centre of Indian Institute of Metals.
- 2. 4th INUP familiarization workshop" WINTER SCHOOL ON NANO-SCALE MATERIALS AND DEVICE S (IWNMD 2010)" held at IIT Bombay in Associated with Cambridge University, UK, Mumbai during Dec.13-17, 2010.
- 3. Participated and completed 108th summer School Orientation Programme at Academic Staff College, Pondicherry University, Puducherry, during 15.06.12 to 05.07.12.
- 4. Participated and completed the Orientation Programme to the newly recruited Teachers of the University, Organized by Curriculum Development Cell, Alagappa University, Karaikudi, during 24.08.12 to 31.08.12.
- 5. Participated and completed the Short term course on Optical and Ultrasonic Methods in NDE, Organized by Department of Physics, National Institute of Technology, Tiruchirapalli-15, during 16.10.13 to 20.10.13.
- 6. Participated and completed Refresher Course in Physics at Academic Staff College, Bharadhidasan University, Tiruchirapalli, during 01.02.14 to 21. 02. 14.
- 7. Participated and completed 69th Refresher Course in Experimental Physics at Indian Academy of Sciences, Jalahali, Banglaru during 14.04.15 to 29.04.15.

8. Participated and completed Refresher Course "Quantum Mechanics" Sponsored and Supported by Indian Academy of Sciences, Banglaru, Indian National Science Academy, New Delhi and The National Academy of Sciences, Allahabad and Organized by Division of Physics, School of Advanced Sciences, VIT-Chennai during 12.05.18 to 22.05.18.

Resourcepersonsin variouscapacities

National Conferences : 51

InternationalConferences : 47

InvitedLectures : 04

Presented/ invited Lecture and Chairmanship in National/International Conferences/Natural Science Society etc.,

- 1. Enhanced Magnetic Properties of Ferromagnetic Thin Films via Chemical Solution Techniques. **N.Anandhan**, National Conference on Space Astronomy and Nanomaterials (NCSANS-19), Department of Physics, Idhaya College for Women, Sarugani- 630411, on 11, Feb-2019.
- 2. Development of DSSCs Using Chemical solution techniques, **N.Anandhan**, International Seminar On Recent Advances in Materials Science (ISRAM)-18. Department of Physics, Idhaya College for Women, Kumbakonam-612001, on 12, Sep-2018.
- 3. Application of Thin film Technology in Engineering, Two Days National level seminar BRAINY2012, organized by Department of science & Humanities, AVC college of Engineering, Mannanpandal, Mayiladuthurai, Tamil Nadu during 21-22 March 2012.
- 4. Applications of Mössbauer spectroscopy in Materials Science and Space exploration, Physics Society, Department of Physics, Anandha College, Devakottai, Tamil Nadu,India, 11 March-2011.