

NAME OF THE EMPLOYEE : Dr. R. Ananthakumar
EMPLOYEE ID : 1451
DESIGNATION : Scientist
EDUCATIONAL QUALIFICATION: Ph.D.
DATE OF JOINING : 19-12-2016
CONTACT DETAILS : +91-8895001133
EMAIL : ananth@cipet.gov.in / ananth.cipet@gmail.com
GROUP WEBSITE : <https://ananthkaist.wixsite.com/ar-group>

Profile: Dr. R. Ananthakumar, Scientist, CIPET:SARP-ARSTPS

Area of Interest: Hybrid Nanostructure Materials, Energy Conversion, Energy Storage, Additive Manufacturing, Self-powered micro/nano system, Surface Engineering, Thin Films, Corrosion, & Biomedical applications.

Educational Details:

Degree	Subject	University	Year
PhD	Physics	Bharathidasan University, Tamilnadu	2024
PhD	Mechanical Engineering	Jeju National University, South Korea	2015
M.Phil.	Physics	Bharathidasan University, Tamilnadu	2010
B.Ed.	Physical Science	Thiruvalluvar University	2008
M.Sc.	Physics	Bharathidasan University, Tamilnadu	2007
B.Sc.	Physics	University of Madras, Tamilnadu	2005

Professional Background:

From	To	Position	Organisation
March 2024	Present	Scientist	CIPET: SARP-ARSTPS, Chennai, India.
June 2022	March 2024	Jr. Scientist	CIPET: SARP-ARSTPS, Chennai, India.
Dec 2016	June 2022	Jr. Scientist	CIPET: SARP-LARPM, Bhubaneswar, India.
June 2016	Nov. 2016	Alexander von Humboldt Post-Doctoral Researcher	University of Konstanz, Konstanz, Germany (Prof. Dr. Lukas Schmidt-Mende Group)
March 2015	Feb. 2016	BK 21+ Postdoctoral Fellow	Korea Advanced Institute of Science and Technology, Daejeon, South Korea. (Prof. Seung Tak Ryu, KAIST & Prof. Jang Ji-Hyun UNIST, Ulsan)
Feb. 2011	Aug. 2011	Senior Research Fellow	Central Electrochemical Research Institute, Tamilnadu-630003.
Feb. 2009	Feb 2011	Junior Research Fellow	Central Electrochemical Research Institute, Tamilnadu-630003.

Multiple Posts:

From	To	Position	Organisation
June 2022	Present	Assistant Professor	CIPET:IPT, Chennai
June 2022	Present	Technical Committee Member	CIPET, R&D wings
2020	June 2022	Technical Manager for Dimension Calibration Lab	CIPET:SARP-LARPM, Bhubaneswar
Jan 2017	Dec 2021	Assistant Professor	CIPET:IPT, Bhubaneswar

Honors and Awards:

Award	Institute	Year
Top 2% Scientists	Top 2% Scientists Published by Stanford University	2024
Best Poster Award (Corr. author)	20th National Conference On Corrosion Control, Jenneys Residency, Coimbatore, Tamilnadu from December 7-9th, 2023	2023
Top 2% Scientists	Top 2% Scientists Published by Stanford University	2023
Best Popular Science Stories (Mentor)	Dr. Siva for being the winner of Best Popular Science Stories under the Post-Doctoral Fellow (PDF) Category in DST AWSAR-2022 Competition	2023
Best Poster Award (Corr. author)	13 th Int. Conf. on “APM-2022” at CIPET: SARP: ARSTPS, Chennai, India. Ms. Ankita Mohanty-SRF	2022
Best Poster Award (Corr. author)	12 th Int. Conf. on “APM-2021” at CIPET: SARP: LARPM, Bhubaneswar, India. Ms. Alekhika Tripathy-JRF	2021
Best Researcher Award	University Foundation Day -2020, BPUT, Odisha.	2020
Best Paper Award (Corr. author)	Two Awards in 4 th Int. Conf. on Soft Materials, December 13-18, 2020, MNIT, Jaipur. Ms. Alekhika Tripathy-JRF & Ms. Nilimapriyadarsini Swain-PA-II	2020
Best Paper Award (Corr. author)	Int. Virtual Conf. on FMT 2020 at KIIT, Bhubaneswar, India. Mr. S. Arun Kumar	2020
Best Paper Award (Corr. author)	11 th Int. Conf. on “APM-2020” at CIPET: APDDRL, Bengaluru, India. Mr. S. Arun Kumar	2020
Best Paper Award (Corr. author)	64 th DAE Solid State Physics Symposium at IIT-Jodhpur, 2019. Mr. S. Arun Kumar	2019
Best Paper Award (Corr. author)	2 nd ICNAN'19 at VIT, Vellore, India, 2019. Ms. Ankita Mohanty	2019
Best Poster Award	International Conference of Advanced Materials Science (ICAMS-2019), Thanthai Hans Roever College, Perambalur.	2019
Nominated to CHINAPLAS 2019, Visiting Scientist	CIPET-HO, DCPC, Ministry of Chemicals & Fertilizer, India, May 2019.	2019
Research Visit	University of Konstanz, Germany under DST-DAAD Project, October 2018.	2018
Research Visit	Prof. Sang Jae Kim Lab, Jeju National University, South Korea under BK21+ Programme, Feb.2018.	2018
Best Poster Award (Co-author)	4 th ICAE 2017, Jeju, South Korea, Nov. 2017. Dr. C. Arunkumar	2017
Alexander von Humboldt Post-Doctoral Fellowship	University of Konstanz, Germany, 06.2016-11.2016. Alexander von Humboldt Foundation, Born, Germany.	2016
Best Doctoral Thesis Award	Korean Society of Mechanical Engineers, South Korea, Dec. 2015.	2015
BK21 Plus Post-Doctoral Scholarship	Korea Advanced Institute of Science and Technology (KAIST), South Korea, Mar. 2015 to Feb. 2016.	2015
Presidential Award (Thesis Award),	Jeju National University, South Korea, 2015.	2015

BK21 Plus Scholarship	Jeju National University, South Korea, Sep. 2013 to Feb. 2015.	2013
Student Travel Support	224 th ECS Meeting, San Francisco, CA, USA, Oct. 2013.	2013
Best Poster Award	National Conference on Korean Sensors Society, South Korea, Nov. 2012.	2012
Best Paper Award (Co-author)	8 th International Symposium on Applied Plasma Science, Japan, Sep. 2011.	2011
Best Oral and Poster Award	National Conference on 15 th National Congress on Corrosion Control, India, Sep. 2010.	2010
Best Oral Award	National Conference on Corrosion Assessment and its Control, India, Dec. 2009.	2009
University 12 th Rank	Master of Science, Bharathidasan University, India, 2007.	2007
Best Performer Award	State Level Seminar on Emerging Trend in Physics, India, Oct. 2004.	2004

Sponsored Research Projects:

Principal Investigator:

Topic	Funding Agency	Start Date	Period
Development of High Energy Supercapacitors by Dry Coating Process for Smart Toys	DST	Sept 2024	3 Years
Tuning of In-Plane 3D Porous Efficient Electrodes for Microsupercapacitors	DST-DAAD	June 2023	2 Years
DST IC-MAP Storage	DST	Mar 2022	3 Years
Development of High-Performance Flexible Thin Film Supercapacitors Based on Transition Metal Nitrides	UGC-DAE-CSR	June 2022	3 Years
Rationally Designed Flexible Three-Dimensional Interconnected Piezoelectric Composites Foam for Highly Efficient Mechanical Energy Harvesting	DST-SYST	May 2020	3 Years
Development of Hybrid 3D Architecture Electrodes for High Energy Density Supercapattery	DST	Jan 2018	3+1 Years
Hybrid 3D Architecture Electrodes for Smart and Flexible Supercapattery	DST-DAAD	June 2018	2+1 Years

Co-Principal Investigator:

Topic	Funding Agency	Start Date	Period
Scalable Micro Porous Polymer Film as a Separator for Secondary Lithium Battery Applications	DST	Dec 2023	2 Years
Centre of Excellence on “Bio-Engineered Sustainable Polymeric Systems”	DCPC	Feb. 2019	4 Years

Mentor Projects:

Topic	Funding Agency	Start Date	Period
Development of Corrosion Resistant and Tribological Function Based Smart Hexagonal Boron Nitrate Composite (HBNC) Coatings.	CSIR-SRA	April 2023	3 Years
Development of Corrosion Resistant and Anti-Fouling Based Smart Zeolite Coatings for Marine Vehicles. (Dr. T. Siva)	SERB-NPDF - Mentor	Jan 2021	2 Years
Rational Design of Mixed-MOF Derived 3D Nanostructures for High-Performance Hybrid Supercapacitors (Ms. Ankita Mohanty)	DST-Inspire (Mentor)	March 2018	5 Years

Internship/Workshop

Topic	Funding Agency	Start Date	Period
Design and Development of Automobile Components via Multi Jet Fusion (MJF) and Selective Laser Melting	SERB-Vritika	Sep 2023	2 Months
High-End Workshop on Introduction to Design, Analysis and Additive Manufacturing Techniques	SERB-Karyashala	Feb. 2023	8 Days
Self-Powered Systems: Marion Hinterreiter	DAAD-RISE	Aug. 2022	45 Days
Development of Flexible Polymeric based Piezoelectric Energy Harvesting Devices: Marion Hinterreiter	DAAD-HAW	Feb. 2022	6 Months
Training for Expertise in Fabrication and Characterization of 3D Printable Filaments for Electronics Application.	SERB-Vritika	Jan 2022	2 Months

Memberships:

- Member of **Electrochemical Society (ECS)**, USA.
- Member of **Int. Society of Electrochemistry (ISE)**, Switzerland

Fellowships of Professional Societies:

- Availed **Alexander von Humboldt Post-Doctoral Fellowship** at University of Konstanz, awarded from Alexander von Humboldt Foundation, Germany, **June 2016 to May 2018**.
- Selected for **Korean Research Fellowship (KRF)** from **National Research Foundation**, South Korea, **Nov.2015**.

Scholarship:

- **BK21 plus scholarship** - Received from Korea Advanced Institute of Science and Technology, Korea for the Post-Doctoral Researcher, **Mar. 2015 to Feb. 2016**.
- **BK21 plus scholarship** - Received from Jeju National University, Korea for the doctoral course, **Sep. 2013 to Feb. 2015**.
- **Senior Research Fellow (Project)** - Received from the DST (GAP 19/08) at Central Electrochemical Research Institute (CECRI), Karaikudi, India, **6th February 2011 to 18th August 2011**.

- **Junior Research Fellow (Project)** - Received from the DST (GAP 19/08) at Central Electrochemical Research Institute (CECRI), Karaikudi, India, **6th February 2009 to 5th February 2011.**

Teaching Engagements:

Title	Course Code	Class Name	Semester
Conducting Polymers	417E2C	M.Sc Polymer Science, (CIPET: IPT, Chennai)	Second
Metal and Powder Forming Techniques	ML3591	BE Manufacturing Engineering, (CIPET: IPT, Chennai)	Four
Additive Manufacturing	PT3010	B.Tech Plastics Technology, (CIPET: IPT, Chennai)	Five
Nanomaterials and Applications	OM353	B.Tech Plastics Technology, (CIPET: IPT, Chennai)	Seven
Polymer Physics	PT3304	B.Tech Plastics Technology, (CIPET: IPT, Chennai)	Thrid
Introduction to Nano Technology	P1PNBC04	M.Tech. Polymer Nanotechnology, (CIPET: IPT, Bhubaneswar)	First
Nanomaterials For Energy & Environment	PNPE206	M.Tech. Polymer Nanotechnology, (CIPET: IPT, Bhubaneswar)	Second

Ph.Ds Supervised:

Topic	Scholar Name	Status of PHD	Registration Date
Development of High Ionic Conducting Solid-State Composite Electrolyte for Ion Batteries	Mr.Vijaysingh V	Ongoing	Dec 2023
Design and Development of Highly Energy-Dense Non-Lithium Anode based Solid-State Li-Ion Batteries	Ms. Shruti K	Ongoing	July 2024
Development of Hybrid Materials for Piezoelectric and Flexoelectric Transducers.	Ms. Alekhika Tripathy	Thesis Submitted	March 2020
Rational Design of Mixed-MOF Derived 3D Nanostructures for High Performance Hybrid Supercapacitor	Ms. Ankita Mohanty	Completed	July 2018
Fabrication of Three Dimensional Network Architecture Electrodes for High-Performance Supercapattery	Ms. Nilima Priyadarsini Swain	Completed	July 2018

Research Scholar Groups:

Scholar Name	Interest
Dr. T. Siva (SERB-National Post-Doctoral Fellow-Jan 2021- till)	Development of Corrosion Resistant and Tribological Function Based Smart Hexagonal Boron Nitrate Composite (HBNC) Coatings
Mr. K. Balaraman (July 2023 – Nov 2023)	Storage Map
Mr. K.R. Hari Narayanan (Sep. 2022 – April 2023)	DST IC-Storage Map
Ms. K. Srividhya (Nov 2022 –April 2023)	Three-Dimensional Interconnected Piezoelectric Composites Foam for Highly Efficient Mechanical Energy Harvesting.
Dr. T. Siva (SERB-National Post-Doctoral Fellow-Jan 2021- Jan 2023)	Development of Corrosion Resistant and Anti-Fouling Based Smart Coatings for Diverse Applications
Ms. Sanskruti Smaranika Dani, Project Associate-I (May, 2021 to till)	Three-Dimensional Interconnected Piezoelectric Composites Foam for Highly Efficient Mechanical Energy Harvesting.
Mr. S. Arun Kumar, Project Associate-II (July, 2018-Feb, 2021)	Fabrication of Hybrid 3D Architecture Electrodes for High Energy Density Supercapattery.
Ms. Ayusmin Panda, Project Associate-I (Aug. 2020-March, 2021)	Flexible Three-Dimensional Interconnected Piezoelectric Composites Foam for Mechanical Energy Harvesting.
Ms. Sohaila Zaghloul Noby; Visiting Scholar, University of Konstanz, Germany	3D Architecture Electrodes for Flexible supercapacitors
Ms. Sarbani Sahu, Junior Research Fellow (July,2019-May,2020)	Bio-derived Electroactive Materials for Supercapacitors.

Projects and Thesis Supervised:

Title of Project	Names of Student	Year
3D Networked Nb ₂ C/Au Electroactive Materials for High-Performance Supercapacitors	Ms. Sreedevi S Menon	2024
Fabrication of Cotton Fiber/PVA-Based Alkaline Gel Electrolyte for Solid-State Hybrid Supercapacitors	Ms. S. Gayathri	2024
Nanostructured TiCN/Graphite Thin Film as a Negative Electrode Material for Flexible Supercapacitors	Mr. Arjun V	2023
Binder-Free Magnetron Sputtered Titanium Carbide/Graphite Thin Films for Supercapacitor Applications	Mr. Midhun Krishna MB	2023
Molybdenum Nitride Decorated 3D Porous Dendrimer Architecture as a Binder-Free Negative Electrode for Supercapacitors	Mr. V. Vijay Singh	2023

Highly Ordered 3D-NbN@NiCo/SS Porous Nanostructure Electrode for Energy Storage Devices	Mr. Monesh Waran	2023
Preparation And Electrical Characterisation of 3D-KNNS-CBNZ-BZ/ Polymeric Composite Foam Piezoelectric Nanogenerator	Ms. Veena V & Yamuna K	2023
Design and Development of Turboelectric Effect-Based 3D Printed Educational Toy	Ms. Anurithika P & Kalaiyarasan G	2023
Preparation and Characterization of ZnO Embedded Piezoelectric Foam for Mechanical Energy Harvesting	Ms. Swatishree Muduli	2022
Preparation and Characterization of 3D Double Hydroxide Nanostructures for Supercapacitors	Mr. Ajay Kumar Sahu	2022
Hierarchical Porous 3D Carbon Coated Metal Nitride as an Electrode Material for Supercapacitor Applications.	Ms. Neethu VG	2021
Investigation of Electrochemical Properties of 3D Hierarchical Structured Electrodes for Hybrid Supercapacitor Applications.	Ms. Nibedita Patra	2020
Preparation and Electrochemical Characterization of Idli Waste-derived Activated Carbon as Electrode for Supercapacitors.	Ms. Piyusha Priyadarshini Pradhan	2020
Fabrication of Triboelectric Nanogenerator for Blue Energy Harvesting.	Mr. Sanjit Kumar Mishra / Mr. Rasmi Ranjan Tripathy	2019
Fabrication and Characterization of Hybrid Flexible Polymeric Nanogenerator.	Mr. Sangaram Parida	2019
Preparation and Electrochemical Characterization on of PANI/MnO ₂ Hybrid Nanostructure for Flexible Supercapacitor.	Ms. Sarbani Sahu	2018

Visits to Outside Institutions:

Institute Visited	Purpose of visit	Date
University of Konstanz, Germany	DST-DAAD Project	October 2023
University of Konstanz, Germany	DST-DAAD Project	October 2018
Nanomaterials & System Lab, Jeju National University, Jeju, South Korea	Collaborative Research Visit	Feb. 2018
CHINAPLAS, China	Conference and Exhibition	May 2019
University of Konstanz, Germany	Humboldt Post-Doctoral Researcher	April to Nov 2016
KAIST, South Korea	Post-Doctoral Researcher	March 2015 to Feb 2016
Nanomaterials & System Lab, Jeju National University, Jeju, South Korea	Doctoral Degree	Aug. 2011 to Feb 2015
SA, United States	224 th ECS Meeting	Oct 2013

Invited Talks:

Title	Place	Date
3D Printing of Polymers: Materials, Processes, and Applications	Innovidhya 2024, at CIPET-IPT, Kochi	10.2024
3D Nanostructured Transition Metal Nitrides for Electrochemical Energy Storage	1st Global Conference on Advanced Materials and Processing at Sri Sairam Engineering College, Chennai.	09.2024
Current Progress on 3D Architecture Electrodes for Supercapacitors	Six Days Faculty Development Program On Recent Advances In Energy Research For Sustainable Development at SRMIST, Kattankulathur	08.2024
Recycling of Spent Lithium-ion Batteries	Guest Lecture at CIPET: SARP- APPDRL, Bengaluru, in the Training of Trainer (ToT) Program on "Plastics Waste Management & Recycling Techniques" for PPMC Centre's	06.2024
Recent Advancements in Integrating Energy Harvesting Systems for Self-Powered Electronic Devices	Guest Lecture at Department of Humanities and Sciences – Physics in Collaboration with the Institution Innovation Council, Rajalakshmi Engineering College, Chennai.	05.2024
Hybrid 3D Network Electrodes for Supercapacitors	2nd International Meeting on Energy Storage Devices 2023 & Industry-Academia Conclave held at Indian Institute of Technology Roorkee.	12.2023
Smart Self-Driven Systems: Integration of Energy Harvesting & Storage	Online International Conference on "functional Nanomaterials and Nanodevices"-ICFNN 2023 at Chettinad Academy of Research and Education, Chennai.	09.2023
Mechanical Energy Harvesting from Flexible 3D-Piezoelectric Polymer Composite Foam Structure	Global Indian Young Scientists Research and Innovation Conference 2023 (GI-YSRI 2023, 31 May – 2 June), at National Agricultural Science Complex-ICAR, New Delhi-110012	05.2023
Engineering of 3D Porous Materials for Supercapacitors	National Conference on Recent Trends in Electronics, Mathematics & Statistics (NCRTEMS – 2023), Kristu Jayanti College, Autonomous, Bengaluru, Karnataka 560077	03.2023
Self-Powered Systems	National Science Day Celebration, Noorul Islam Centre for Higher Education, Kumaracoil – 629 180, Kanyakumari District, Tamilnadu.	02.2023
Piezoelectrochemical effect and its applications	Refresher Course in Physics, Human Resource Development Centre of Bharathiar University, Coimbatore - 641 046 for the University and College Teachers from 07.10.2022 to 20.10.2022 through online mode.	10.2022

Electrochemical Impedance Spectroscopy: Fundamental and Applications	High-End Workshop (KARYASHALA) on “Electrochemical Evaluation of Membrane-Electrode-Assembly for Fuel Cells” CIPET: SARP-APDDRL, Bengaluru	03.2022
Electrochemical Methods	Online short term course on 'Characterization of Materials' at CIPET:IPT, Bhubaneswar	02.2022
3D Hybrid Nanostructured Materials for Energy Technologies	Thanthai Hans Roever College, Perambalur.	12.2021.
Three Dimensional Nanostructures for Energy Storage Devices	Online Short Term Course on Application of Advanced Nanomaterials in Science and Engineering (AANSE-2021)” CIPET:IPT, Bhubaneswar.	05.2021
Advances on Three Dimensional Architecture Electrode Materials for Electrochemical Energy Storage,	Online Short Term Course on Nanostructured Materials: Synthesis, Characterization and Applications, CIPET:IPT, Bhubaneswar.	01.2021
Development of Electroactive Materials for Energy Conversion and Storage Devices	TEQIP-III Sponsored One-day Seminar and Received the University Foundation Day Research Award – 2020	11.2020
Recent Advances in Integrated Energy Conversion and Storage Systems	Recent Advances in Chemical Engineering - 2020, TEQIP III Sponsored online Faculty Development Programme. IGIT, Sarang, Odisha	12. 2020
Recent Advancement in Energy Conversion and Storage Systems	National Seminar on “Emerging Frontiers in Modern Science (EFMS-20)”, Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalur,	01.2020
Self-Powered System: Energy Conversion and Storage	Electrochemical Energy Applications (EEAW 2019), SRM Institute of Science and Technology, Tamilnadu	07.2019

Courses or Conferences Organised:

Conference Name	Sponsored By	Date
Vritika Internship	SERB-Vritika	08.2023
High-End Workshop	SERB-Karyashala	02.2023
International Internship	DAAD RISE WW, Germany	08.2022
International Internship	DAAD-HAW, Germany	02.2022
Vritika Internship	SERB-Vritika	01.2022
12 th International Conference on Advancements in Polymeric Materials-Virtual (APM-2021),	Department of Chemicals & Petro-Chemicals, New Delhi	03.2021
9 th International Conference on Advancements in Polymeric Materials (APM-2018)	Department of Chemicals & Petro-Chemicals, New Delhi	03.2018

National / International Collaboration:

Topic	Organisation
Energy Harvesting (Piezoelectric) and Energy Storage (supercapacitor)	Prof. Sang Jae Kim , Jeju National University, Jeju, South Korea-690-756.
Hybrid Nanostructured Materials for Energy Conversion and Storage	Prof. Dr. Lukas Schmidt-Mende , University of Konstanz, Konstanz, Germany- D-78457.
Hybrid Nanostructured Materials for supercapacitors	Prof. Ji-Hyun Jang , Ulsan National Institute of Science and Technology (UNIST), Ulsan, South Korea-44919.
Energy and Environment	Dr. Yen-Pei Fu , National Dong Hwa University, Hualien, Taiwan-97401.
Piezoelectric Nanogenerators	Dr. Manju Unnikrishnan , Principal Scientist, Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar-751013.
Thin films, Corrosion & Energy Storage	Dr. B. Subramanian , Senior Principal Scientist & Head, Professor (AcSIR), Electroplating and Metal Finishing Division, CSIR- Central Electrochemical Research Institute, Karaikudi - 630 003, Tamilnadu, India.
Energy Storage	Dr. S. Anandan , Scientist 'F', Centre for Nanomaterials, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), (An Autonomous R&D Centre of Department of Science & Technology, Govt. of India), Balapur Post, Hyderabad – 500005 India
Piezoelectric/Triboelectric Nanogenerators	Dr. C. Arunkumar , Associate Professor, School of Electronics Engineering, Vellore Institute of Technology, Vellore, India
Thin films and Corrosion	Dr. K. Gobi Saravanan Centre for Nanoscience and Nanotechnology, Sathyabama Institute of Science and Technology, Chennai-600119

Patent Granted/Applied:

1. R. Ananthakumar, B. Saravanakumar, Ankita Mohanty, Nilimapriyadarsini Swain, S. Arun Kumar, Smita Mohanty, Method for Vapour Phase Growth of Binder-Free 3D Carbon Doped Metal Nitride Porous Architecture Electrode for Supercapacitor and Thereof. Granted, Patent No: 468876; Date: 14.11.2023, India.
2. Sang-Jae Kim, Ananthakumar Ramadoss, Balasubramaniam Saravanakumar, Self-charging Supercapacitor Device and Fabricated Method. Registration Number / Date: 10-1567693-0000 (2015-11-03), Patent No: 9-5-2015-073509286; Document No. KOR1020140058435, South Korea.

List of Publications:

Authored about **100 peer-reviewed articles** as **first (26)**, **corresponding (36)**, and **co-author (47)**; **book chapters: >25** and **Proceedings: 04**; **H-index: 43**; **Citations: >6000**; here is the link to a complete list of publications and presentations [Google Scholar](#); **Scopus ID: 54880106200**; **Researcher ID: A-8874-2015**; **ORCID: <https://orcid.org/0000-0002-6616-7693>**; **Q Ranking Journals-Q1:70; Q2:31; Q3:07; Q4: 01**

Refereed Journals Papers:

2024:

1. Overarching Advancements in Building Practical Li-S Batteries: A Holistic Review, Dona Susan Baji, Shruti Kannan, Pooja B. Madambikattil, Arun Thirumurugan, Manoj Kumar Sharma, Ranjith Krishna Pai, **Ananthakumar Ramadoss***, Shantikumar Nair, Dhamodaran Santhanagopalan*, **Journal of Energy Storage** 100 (2024) 113412. <https://doi.org/10.1016/j.est.2024.113412> **IF: 8.9; Q1**
2. Effective Energy Storage Performance Derived from 3D Porous Dendrimer Architecture Metal Phosphides//Metal Nitride-Sulfides, Nilimapriyadarsini Swain, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, **Small** (2024) 2309800. <https://doi.org/10.1002/sml.202309800> **IF: 13; Q1**
3. Role of Phase Change Materials in Examining the Discharge Behavior of Li-Ion Batteries Using ANSYS Fluent, Hari Narayanan KR, Shruti Kannan, **Ananthakumar Ramadoss***, **ACS Applied Electronic Materials**, 6, 7, (2024) 5163–5172. <https://doi.org/10.1021/acsaelm.4c00677> **IF:4.3; Q1**
4. Recent advances and innovations in the piezoelectrochemical process for energy and the environment: A review, Balasubramaniam Saravanakumar, Kaliannan Thiyagarajan, Suresh Kannan Balasingam, Tamilvanan Siva, Ranjith Krishna Pai, **Ananthakumar Ramadoss***, **Journal of Energy Storage**, 83 (2024) 110576. <https://doi.org/10.1016/j.est.2024.110576> **IF: 8.9; Q1**
5. Unlocking the Potential: Mining Tailings as a Source of Sustainable Nanomaterials, Felipe P.B, Dhandayuthapani T, **Ananthakumar Ramadoss**, V.S. Manikandan, Shanmuga Sundar, D, Carolina V. A, Pedro S.S, Juan C.N, Mauricio M, Arun T, **Renewable and Sustainable Energy Reviews**, 202 (2024) 114665. <https://doi.org/10.1016/j.rser.2024.114665> **IF: 16.3; Q1**
6. Dual Templated-Based Synthesis of Smart Zeolites and Its Self-Healing Anticorrosion Coatings, Siva Tamilvanan, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, **European Polymer Journal** 210 (2024) 112957. <https://doi.org/10.1016/j.eurpolymj.2024.112957> **IF: 5.8; Q1**
7. Prospects into the Role of Nanoporous Electrodes for Supercapacitors: Insight into Their Structure and Performance, Shruti Kannan, Arun Kumar S, Himadri Tanaya Das, Arun Thirumurugan, Siva Tamilvanan, Ranjith Krishna Pai, **Ananthakumar Ramadoss***, **Energy & Fuels**, 38, 19, (2024) 18116–18152. <https://doi.org/10.1021/acs.energyfuels.4c01220> **IF:5.2; Q1**
8. Recycling of diaper wastes for a triboelectric nanogenerator-based weather station, Sayyid Abdul Basith, **Ananthakumar Ramadoss**, Gaurav Khandelwal, George Jacob,

9. Design of highly stable Co₃O₄/RGO/CoFe₂O₄ hybrid nanocomposites with multiple nanointerfaces for enhanced supercapacitor performance, T Kavin Kumar, N Ramesh Reddy, Durga Prasad Pabba, **Ananthakumar Ramadoss**, Udayabhaskar Rednam, Shanmuga Sundar Dhanabalan, Natarajan Chidhambaram, Asaithambi Perumal, Samuel A Hevia, Arun Thirumurugan, *Inorganic Chemistry Communications* 168 (2024) 112920. <https://doi.org/10.1016/j.inoche.2024.112920> IF: 4.4; Q2

2023:

10. Morphology Control of Mixed Metallic Organic Framework for High-Performance Hybrid Supercapacitors, Ankita Mohanty, Kyeong-Nam Kang, Balasubramaniam Saravanakumar, **Ananthakumar Ramadoss***, Ji-Hyun Jang*, *Small*, (2023) <https://doi.org/10.1002/sml.202308771> IF: 13; Q1
11. High Energy Density Supercapattery Empowered by Efficient Binder-Free Three-Dimensional Carbon Coated NiCo₂O₄/Ni Battery and Fe₃S₄@NiCo Pseudocapacitive Electrodes. Nilimapriyadarsini Swain, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, *Journal of Energy Storage*, 58 (2023) 106220. <https://doi.org/10.1016/j.est.2022.106220> IF: 8.9; Q1
12. Tailoring potential window of aqueous electrolyte via steric molecular engineering for high voltage supercapacitors, Prasanna Sekar, **Ananthakumar Ramadoss**, Saravanakumar Balasubramaniam, *Applied Materials Today*, 32 (2023), 101845. <https://doi.org/10.1016/j.apmt.2023.101845> IF: 7.2; Q1
13. 3D-C-Fe₄N@NiCu/Metallic Macroporous Frameworks for Binder-free Compact Hybrid Supercapacitors with High Areal Capacities. Ankita Mohanty, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, *Electrochimica Acta*, 440 (2023) 141707. <https://doi.org/10.1016/j.electacta.2022.141707> IF: 5.5; Q1
14. Heterostructured 3D-Co-MOF@CoO/Ni||3D-C-Fe₄N@NiCu/SS hybrids as high-performance electrode materials for efficient hybrid supercapacitor. Ankita Mohanty, Sohaila Z. Noby, Lukas Schmidt Mende, **Ananthakumar Ramadoss***, *Journal of Alloys and Compounds*, 967 (2023) 171603. <https://doi.org/10.1016/j.jallcom.2023.171603> IF: 5.8; Q1
15. Acoustic Sensor Based on a PVDF-TrFE/BTO Composite Structure with Improved Ferroelectric and Piezoelectric Properties. Rajesh Sahoo, Dhayanithi Duraisamy, Nirmal Prashanth Maria Joseph Raj, Alluri Nagamalleswara Rao, Smita Mohanty, Giridharan Nambi Venkatesan, Sang-Jae Kim, **Ananthakumar Ramadoss***, *Surfaces and Interfaces*, (2023) 103747. <https://doi.org/10.1016/j.surfin.2023.103747> IF: 5.7; Q1
16. Hierarchical carbon-coated manganese nitride 3D porous/nickel nanostructure as an electrode material for supercapacitors. VG Neethu, Shruti Kannan, Nilimapriyadarsini Swain, Nirmal Prashanth Maria Joseph Raj, **Ananthakumar Ramadoss***, *Materials Letter*, 357 (2023) 135707. <https://doi.org/10.1016/j.matlet.2023.135707> IF: 2.7; Q2
17. Elucidating the Piezoelectric, Ferroelectric and Dielectric Performance of Lead-free KNN/PVDF and its Copolymers-Based Flexible Composite Films. Alekhika Tripathy, Nirmal Prashanth Maria Joseph Raj, Sang-jae Kim, **Ananthakumar Ramadoss***, *ACS*

- Applied Electronic Materials**, 5(10) (2023) 5422–5431
<https://doi.org/10.1021/acsaelm.3c00306> IF: 4.3; Q1
18. Electrosynthesis of Silica Reservoir Incorporated Dual Stimuli Responsive Conducting Polymer-based Self-healing Coatings. Tamilvanan Siva, Kamaraj Kandhasamy, Karpakam Vaduganathan, Sadagopan Sathiyarayanan, **Ananthakumar Ramadoss***, **ACS Industrial & Engineering Chemistry Research**, 62 (9) (2023) 3942–3951. <https://doi.org/10.1021/acs.iecr.2c03445> IF: 3.8; Q1
 19. Binder-free TiN/graphite based thin film negative electrode for flexible energy storage devices, **Ananthakumar Ramadoss***, Alekhika Tripathy, Ankita Mohanty, Nilimapriyadarsini Swain, Gobi Saravanan Kaliaraj, Sohaila Z Noby, K Kirubavathi, K Selvaraju, **Vacuum**, 211 (2023) 111848. <https://doi.org/10.1016/j.vacuum.2023.111848> IF: 3.8; Q1
 20. Fabrication and feasibility study of polymer-based triboelectric nanogenerator towards blue energy harvesting, Rasmi Ranjan Tripathy, Rajesh Sahoo, Sanjit Mishra, Bibhudutta Das, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, **Green Energy and Resources**, 1(1) (2023) 100006. <https://doi.org/10.1016/j.gerr.2023.100006>
 21. MXene-Based Nanocomposites for Piezoelectric and Triboelectric Energy Harvesting Applications, Durga Prasad Pabba, Mani Satthiyaraju, **Ananthakumar Ramadoss***, Pandurengan Sakthivel, Natarajan Chidhambaram, Shanmugasundar Dhanabalan, Carolina Venegas Abarzúa, Mauricio J. Morel, Rednam Udayabhaskar, Ramalinga Viswanathan Mangalaraja, Radhamanohar Aepuru, Sathish-Kumar Kamaraj, Praveen Kumar Murugesan and Arun Thirumurugan, **Micromachines** 14(6) (2023)1273. <https://doi.org/10.3390/mi14061273> IF: 3; Q2
- 2022:**
22. Tuning of Highly Piezoelectric Bismuth Ferrite/ PVDF-Copolymer Flexible films for Efficient Energy Harvesting Performance, Alekhika Tripathy, Nirmal Prashanth Maria Joseph Raj, Balasubramaniam Saravanakumar, Sang Jae Kim, **Ananthakumar Ramadoss***, **Journal of Alloys and Compounds**, 932 (2022) 167569. <https://doi.org/10.1016/j.jallcom.2022.167569> IF: 5.8; Q1
 23. High supercapacitive performance of food-waste extracted activated carbon, Alekhika Tripathy, Piyusha Priyadarshini Pradhan, Ankita Mohanty, Smita Mohanty, **Ananthakumar Ramadoss***, **Bioresource Technology Reports** 20 (2022) 101241. <https://doi.org/10.1016/j.biteb.2022.101241>; Q1/Q2
 24. A Critical Review: Impact of Electrical Poling on Longitudinal Piezoelectric Strain Coefficient. Sanskruti Smaranika Dani, Alekhika Tripathy, Nagamalleswara Rao Alluri, Saravanakumar Balasubramaniam, and **Ananthakumar Ramadoss***, **Materials Advances**, 3 (2022) 8886–8921, <https://doi.org/10.1039/D2MA00559J>; IF:5.2; Q2
 25. Functionality of Flexible Pressure Sensors in Cardiovascular Health Monitoring: A Review. Suvrajyoti Mishra, Smita Mohanty, and **Ananthakumar Ramadoss***, **ACS Sensors**, 7(9) (2022) 2495–2520, <https://doi.org/10.1021/acssensors.2c00942>. IF: 8.2; Q1
 26. Flexible, Lightweight, and Ultrabendable RuO₂MnO₂/Graphite Sheets for Supercapacitors. **Ananthakumar Ramadoss***, Ka Kan Wong, Nilimapriyadarsini Swain, Ankita Mohanty, Kirubavathi K, Selvaraju K, Lukas Schmidt Mende, **Energy & Fuels**,

- (2022) 36, 18, 11194–11204 . <https://doi.org/10.1021/acs.energyfuels.2c01336>. IF: 5.2; Q1
27. 3D Cabbage-Like Microflower Bismuth Molybdenum-Organic Framework Hybrid: Synthesis and Characterizations. Ankita Mohanty, **Ananthakumar Ramadoss***, **Materials Letters**, 324 (2022) 132763. <https://doi.org/10.1016/j.matlet.2022.132763>. IF: 2.7; Q2
 28. Hierarchical Carbon Coated Vertically Aligned α -MoO₃ Nanoblades Anode Materials for Supercapacitor Application. Sohaila Z Noby, Ankita Mohanty, Peymen Zirak, **Ananthakumar Ramadoss***, Lukas Schmidt-Mende. **Journal of Alloys and Compounds**, 918 (2022) 165530. <https://doi.org/10.1016/j.jallcom.2022.165530>. IF: 5.8; Q1
 29. Synthesis and Characterization of Poly (aniline-co-p-nitroaniline) (PANA) and its Corrosion-resistant Properties against Corrosive Media. T. Siva, P. Thirumurugan, P. Jeyanthi, **Ananthakumar Ramadoss***. **Results in Surfaces and Interfaces**, 8 (2022) 100069. <https://doi.org/10.1016/j.rsurfi.2022.100069>.
 30. Engineering of Thermally Converted 3D-NiO-Co₃O₄/Ni//3D-Y-Fe₄N-C@Ni/SS Porous Electrodes for High-performance Supercapatteries. Nilimapriyadarsini Swain, Balasubramaniam Saravanakumar, Smita Mohanty, **Ananthakumar Ramadoss***, **Electrochimica Acta**, 412 (2022) 140076. <https://doi.org/10.1016/j.electacta.2022.140076> IF: 5.5; Q1
 31. A Brief Review on Stretchable, Compressible, and Deformable Supercapacitor for Smart Devices. Nilimapriyadarsini Swain, Alekhika Tripathy, T. Arun, Balasubramaniam Saravanakumar, Lukas Schmidt Mende, **Ananthakumar Ramadoss***, **Chemical Engineering Journal**, 446 (3) (2022) 136876. <https://doi.org/10.1016/j.cej.2022.136876> IF: 13.3; Q1
 32. Design of open-porous three-dimensional starfish-like Co₃O₄/Ni forest electrode for efficient energy storage devices. S. Arun Kumar, B. Saravanakumar, Smita Mohanty, **Ananthakumar Ramadoss***, **Journal of Alloys and Compounds**, 896, (2022) 163070. <https://doi.org/10.1016/j.jallcom.2021.163070>. IF:5.8; Q1
 33. ZnTa₂O₆-Holistic insights into a potential high-temperature piezoelectric candidate with tri- α -PbO₂ structure, R Mitra, **A Ramadoss**, S Anwar, U Manju, **Materials Research Bulletin**, 157 (2022) 112038. <https://doi.org/10.1016/j.materresbull.2022.112038> IF: 5.3; Q1
 34. Stretchable polymer-modulated PVDF-HFP/TiO₂ nanoparticles-based piezoelectric nanogenerators for energy harvesting and sensing applications, R Mitra, BS Priyadarshini, **A Ramadoss**, U Manju, **Materials Science and Engineering: B** 286 (2022) 116029. <https://doi.org/10.1016/j.mseb.2022.116029> IF: 3.9; Q2
 35. Bio-waste derived self-templated, nitrogen self-doped porous carbon for supercapacitors, OP Nanda, NK Das, P Sekar, **A Ramadoss**, B Saravanakumar, **Bioresource Technology Reports**, 19 (2022) 101198. <https://doi.org/10.1016/j.biteb.2022.101198>; Q1/Q2
 36. Comprehensive review on various additive manufacturing techniques and its implementation in electronic devices. Nidhin Divakaran, Jyoti Prakash Das, Ajay Kumar PV, Smita Mohanty, **Ananthakumar Ramadoss**, Sanjay Kumar Nayak, **Journal of**

- Manufacturing Systems**, 62 (2022) 477-502. <https://doi.org/10.1016/j.jmsy.2022.01.002> IF: 12.2; Q1
37. Titanium oxynitride coated graphite paper electrodes for light-weight supercapacitors. **Ananthakumar Ramadoss***, Nilimapriyadarsini Swain, Gobi Saravanan, Sohaila Z Noby, K Kirubavathi, Lukas Schmidt-Mende, K Selvaraju, **Journal of Materials Science: Materials in Electronics**, 33 (2022) 9669–9678. <https://doi.org/10.1007/s10854-021-07644-1> IF: 2.8; Q2
 38. Enhanced voltage response in TiO₂ nanoparticle-embedded piezoelectric nanogenerator, Sheetal Bhatta, Rahul Mitra, **Ananthakumar Ramadoss**, Unnikrishnan Manju, **IOP-Nanotechnology**, 33 (2022) 335402. <https://doi.org/10.1088/1361-6528/ac6df5> IF: 3.5; Q2
 39. Construction of light-weight and flexible vanadium nitride coated graphite paper electrodes for supercapacitors, **Ananthakumar Ramadoss***, Ankita Mohanty, K. Gobi Saravanan, Manab Kundu, Sohaila Z. Noby, K. Kirubavathi, K. Selvaraju, Lukas Schmidt Mende, **Ionics** 28 (2022) 2513–2524, <https://doi.org/10.1007/s11581-022-04529-z> IF: 2.4; Q2
 40. Plasmon enfolded TiO₂ hierarchical photoanode: fabrication and the performance evaluation as liquid-based dye-sensitized solar cell, Manikandan, V. S., A. K. Palai, **A. Ramadoss**, S. Mohanty, and M. Navaneethan. **Journal of Materials Science: Materials in Electronics**, 33 (2022) 8655–8664. <https://doi.org/10.1007/s10854-021-06724-6> IF:2.8; Q2
 41. MXene/Ferrite Magnetic Nanocomposites for Electrochemical Supercapacitor Applications. Arun Thirumurugan, **Ananthakumar Ramadoss**, Shanmuga Sundar Dhanabalan, Sathish-Kumar Kamaraj, Natarajan Chidhambaram, Suyambrakasam Gobalakrishnan, Carolina Venegas Abarzúa 1, Yerko Alejandro Reyes Caamaño, Rednam Udayabhaskar and Mauricio J. Morel, **Micromachines** 2022, 13(10), 1792; <https://doi.org/10.3390/mi13101792> IF:3; Q2
- 2021:**
42. Fiber-shaped electronic devices. A. Fakharuddin, H. Li, F. D. Giacomo, T. Zhang, N. Gasparini, A.Y. Elezzabi, A. Mohanty, **Ananthakumar Ramadoss**, J. K. Ling, A. Sultati, M. Tountas, Lukas Schmidt-Mende, P. Argitis, Rajan Jose, M. K. Nazeeruddin, Abd Rashid Bin Mohd Yusoff, Maria Vasilopoulou, **Advanced Energy Materials** 11 (2021) 2101443. <https://doi.org/10.1002/aenm.202101443> IF: 24.4; Q1
 43. Recent Trends in Template Assisted 3D Porous Materials for Electrochemical Supercapacitors. N. Swain, S. Balasubramaniam, M. Kundu, Lukas Schmidt-Mende, **Ananthakumar Ramadoss***, **Journal of Materials Chemistry A** 9 (2021) 25286-25324. <https://doi.org/10.1039/D1TA06122D> IF: 10.7; Q1
 44. Surface Functionalized Bioceramics Coated on Metallic Implants for Biomedical and Anticorrosion Performance—A Review, Kaliaraj, G. Saravanan, S. Tamilvanan, and **A. Ramadoss***. **Journal of Materials Chemistry B**, 9 (2021) 9433-9460. <https://doi.org/10.1039/D1TB01301G> IF: 6.1; Q1
 45. Renewable Banana-Peel-derived Activated Carbon as an Inexpensive and Efficient Electrode Material Showing Fascinating Supercapacitive Performance. A. Tripathy, B. Saravanakumar, S. Mohanty, S. K. Nayak, **Ananthakumar Ramadoss***, **Journal of**

- Environmental Chemical Engineering**, 9 (2021) 106398. <https://doi.org/10.1016/j.jece.2021.106398> IF: 7.4; Q1
46. Emerging action of corrosion prevention based on sustained self-healing coatings. Siva, T., A. Ramadoss*, and S. Sathiyarayanan*. **Surfaces and Interfaces** 26 (2021) 101440. <https://doi.org/10.1016/j.surfin.2021.101440> IF: 5.7; Q1
 47. Comprehensive Review on Flexoelectric Energy Harvesting Technology: Mechanisms, Device Configurations and Potential Applications, A. Tripathy, B. Saravanakumar, S. Mohanty, S. K. Nayak, **Ananthakumar Ramadoss***, **ACS Applied Electronic Materials**, 3(7) (2021) 2898–2924. <https://doi.org/10.1021/acsaelm.1c00267> IF: 4.3; Q1
 48. An Extensive Review on Three Dimension Architectural Metal-Organic Frameworks towards Supercapacitor Application, A. Mohanty, D. P. Jaihindh, Y. P. Fu, S. P. Senanayak, **Lukas Schmidt Mende, Ananthakumar Ramadoss***, **Journal of Power Sources** 488, (2021) 229444. <https://doi.org/10.1016/j.jpowsour.2020.229444> IF: 8.1; Q1
 49. A green approach to water-based graphene ink with reverse coffee ring effect, Nayak, L., Mohanty, S., & Ramadoss, A. **Journal of Materials Science: Materials in Electronics** 32(6) (2021) 7431-7442. <https://doi.org/10.1007/s10854-021-05456-x> IF:2.8; Q2
 50. Enhanced structural and dielectric behaviour of PVDF-PLA binary polymeric blend system, Mishra, Suvrajyoti, Rajesh Sahoo, Lakshmi Unnikrishnan, **Ananthakumar Ramadoss**, Smita Mohanty, and Sanjay Kumar Nayak. **Materials Today Communications** 26 (2021) 101958. <https://doi.org/10.1016/j.mtcomm.2020.101958> IF: 3.7; Q2
 51. Role of Electrolytes on the Electrochemical Characteristics of Fe₃O₄/MXene/RGO Composites for Supercapacitor Applications. T. Arun, A. Mohanty, A. Rosenkranz, B. Wang, J. Yu, M. J. Morel, R. Udayabhaskar, S. A. Hevia, A. A. Fakhrabadi, R.V. Mangalaraja, **Ananthakumar Ramadoss***. **Electrochimica Acta** 367 (2021) 137473. <https://doi.org/10.1016/j.electacta.2020.137473> IF: 5.5; Q1
- 2020:**
52. Three-dimensional Bi₂O₃/Ti Microspheres as an Advanced Negative Electrode for Hybrid Supercapacitors. Arun Kumar S, A. Mohanty, B. Saravanakumar, S. Mohanty, S. K. Nayak, **Ananthakumar Ramadoss***, **Chem. Commun** 56 (2020) 12973-12976. <https://doi.org/10.1039/D0CC04057F> IF: 4.3; Q1
 53. Construction of Three-Dimensional MnO₂/Ni Network as an Efficient Electrode Material for High Performance Supercapacitors. N. Swain, A. Mitra, B. Saravanakumar, S. K. Balasingam, S. Mohanty, S. K. Nayak, **Ananthakumar Ramadoss***, **Electrochimica Acta** 342 (2020) 136041. <https://doi.org/10.1016/j.electacta.2020.136041> IF: 5.5; Q1
 54. Comprehensive Insight into the Mechanism, Material Selection and Performance Evaluation of Supercapatteries and their Future Aspects. B. Saravanakumar, A. Mohanty, B. S. Kannan, S. J. Kim, **Ananthakumar Ramadoss***, **Nano-Micro Letters** 12 (2020) 1-46. <https://doi.org/10.1007/s40820-020-0413-7> IF: 31.6; Q1
 55. Wire-Shaped 3D-Hybrid Supercapacitors as Substitutes for Batteries. K. N. Kang, **Ananthakumar Ramadoss**, J. W. Min, J. C. Yoon, and J. H. Jang, **Nano-Micro Letters** 12 (2020) 28. <https://doi.org/10.1007/s40820-019-0356-z> IF: 31.6; Q1

56. Stacking-free porous graphene network for high capacitive performance. J. H. Hwang, S. J. Ha, **Ananthakumar Ramadoss**, K.Y. Yoon, J. H. Jang, **ACS Applied Energy Materials** 3 (2020) 4348. <https://doi.org/10.1021/acsaem.9b02405> IF: 5.4; Q1
 57. Fabrication of cellulose acetate-chitosan based flexible 3D scaffold-like porous membrane for supercapacitor applications with PVA gel electrolyte. N. R. Aswathy, A.K. Palai, **A. Ramadoss**, S. Mohanty, and S. K. Nayak. **Cellulose** 27 (2020) 3871–3887. <https://doi.org/10.1007/s10570-020-03030-y> IF: 4.9; Q1
 58. An approach towards the fabrication of energy harvesting device using Ca-doped ZnO/PVDF-TrFE composite film. R. Sahoo, Suvrajyoti Mishra, **Ananthakumar Ramadoss**, Smita Mohanty, Swapna Mahapatra, Sanjay Kumar Nayak, **Polymer** 205 (2020) 122869. <https://doi.org/10.1016/j.polymer.2020.122869> IF: 4.1; Q1
 59. Investigation of the Electro-Active Phase Content and Dielectric Behaviour of Mechanically Stretched PVDF-GO and PVDF-rGO Composites. S. Mishra, R. Sahoo, L. Unnikrishnan, **A. Ramadoss**, S. Mohanty, S. K. Nayak, **Materials Research Bulletin**, 124 (2020) 110732. <https://doi.org/10.1016/j.materresbull.2019.110732> IF: 5.3; Q1
 60. Temperature-dependent dielectric properties of metal-doped ZnO nanofiller reinforced PVDF nanocomposites. Rajesh Sahoo, S. Mishra, **Ananthakumar Ramadoss**, S. Mohanty, S. Mahapatra, S. K. Nayak **Materials Research Bulletin** 132 (2020) 111005. <https://doi.org/10.1016/j.materresbull.2020.111005> IF: 5.3; Q1
 61. Rapid synthesis of vertically aligned α -MoO₃ nanostructures on substrates. S. Z. Noby, K. K. Wong, **Ananthakumar Ramadoss**, S. Siroky, M. H. K. Boldt and L. S. Mende, **RSC Advances** 10 (2020) 24119. <https://doi.org/10.1039/D0RA01281E> IF: 3.9; Q2
 62. Enhanced dielectric and piezoelectric properties of Fe-doped ZnO/PVDF-TrFE composite films, R. Sahoo, S. Mishra, L. Unnikrishnan, S. Mohanty, S. Mahapatra, S. K. Nayak, S. Anwar, and **A. Ramadoss**. **Materials Science in Semiconductor Processing** 117 (2020) 105173. <https://doi.org/10.1016/j.mssp.2020.105173> IF: 4.2; Q2
 63. Effect of multi-step processing on the structural, morphological and dielectric behaviour of PVDF films. Suvrajyoti Mishra, Rajesh Sahoo, Lakshmi Unnikrishnan, **Ananthakumar Ramadoss**, Smita Mohanty, Sanjay Kumar Nayak, **Ionics** 26 (12) (2020) 6069-6081. <https://doi.org/10.1007/s11581-020-03770-8> IF: 2.4; Q2
 64. Nickel–zinc sulfide nanocomposite thin film as an efficient cathode material for high-performance hybrid supercapacitors. GS Kaliaraj, **A Ramadoss***, **Materials Science in Semiconductor Processing**, 105 (2020) 104709. <https://doi.org/10.1016/j.mssp.2019.104709> IF: 4.2; Q2
- 2019:
65. **Editorial issue:** Nanomaterials for Electrochemical Energy Conversion and Storage Technologies, S. K. Balasingam, K. S. Nallathambi, M. H. Abdul Jabbar, **Ananthakumar Ramadoss**, S. K. Kamaraj, and M. Kundu, **Editorial (2 pages), Journal of Nanomaterials**, (2019), Volume 2019, Article ID 1089842. <https://doi.org/10.1155/2019/1089842> IF: 5.3; Q2
 66. A review on inkjet printing of nanoparticle ink for flexible electronics, L. Nayak, S. Mohanty, S. K. Nayak, **Ananthakumar Ramadoss**, **Journal of Materials Chemistry C** 7 (2019) 8771-8795. <https://doi.org/10.1039/C9TC01630A> IF: 5.7; Q1

67. Facile synthesis of pristine FeS₂ microflowers and hybrid rGO-FeS₂ microsphere electrode materials for high-performance symmetric capacitors. B. Balamuralitharan, S. K. Balasingam, S. N. Karthick, **Ananthakumar Ramadoss**, M. Kundu, J. S. Bak, I. H. Cho, K. Prabakar, Y. Jun, H. J. Kim, **Journal of Industrial and Engineering Chemistry** **71** (2019) 191-200. <https://doi.org/10.1016/j.jiec.2018.11.022> IF: 5.9; Q1
- 2018:
68. Ultrathin nickel hydroxide on carbon coated 3D-porous copper structures for high performance supercapacitors. Kyeong-Nam Kang, Ik-Hee Kim, **Ananthakumar Ramadoss**, SunI Kim, Jong-Chul Yoon, Ji-Hyun Jang, **Phys. Chem. Chem. Phys.**, (2018), 20, 719-727. <https://doi.org/10.1039/C7CP07473E> IF: 2.9; Q1
- 2017:
69. Single-step synthesis of N-doped three-dimensional graphitic foams for high performance supercapacitors, M. J. Kwak+, **Ananthakumar Ramadoss**+, K. Y. Yoon, J. Park, P. Thiagarajan, J. H. Jang, **ACS Sustainable Chemistry & Engineering** (2017), 5 (8), 6950-6957. <https://doi.org/10.1021/acssuschemeng.7b01132> IF: 7.1; Q1
 70. Fully flexible, lightweight, high performance all-solid-state supercapacitor based on 3-dimensional-graphene/graphite-paper. **Ananthakumar Ramadoss**, K.Y. Yoon, M. J. Kwak, S.I Kim, S. T. Ryu, J. H. Jang, **Journal of Power Source** (2017), 337, 159-165. <https://doi.org/10.1016/j.jpowsour.2016.10.091> IF: 8.1; Q1
- 2016:
71. Realization of high-performance flexible wire supercapacitors based on 3-dimensional NiCo₂O₄/Ni fibers. **Ananthakumar Ramadoss**, K. N. Kang, H. J. Ahn, S. I. Kim, S. T. Ryu, J. H. Jang, **Journal of Materials Chemistry A** (2016), 4 (13), 4718-4727. <https://doi.org/10.1039/C5TA10781D> IF: 10.7; Q1
 72. Synthesis and characterization of NiCo₂O₄ nanoplates as efficient electrode materials for electrochemical supercapacitors. T. Kim+, **Ananthakumar Ramadoss** +, B. Saravanakumar, G. K. Veerasubramani, S. J. Kim, **Applied Surface Science** (2016), 370, 452-458. <https://doi.org/10.1016/j.apsusc.2016.02.147> IF: 6.3; Q1
 73. Synthesis and characterization of DNA fenced, self-assembled SnO₂ nano-assemblies for supercapacitor applications. Subrata Kundu, U. Nithiyanantham, **Ananthakumar Ramadoss**, **Dalton Transactions**, (2016), 45 (8), 3506-3521. <https://doi.org/10.1039/C5DT04920B> IF: 3.5; Q1
 74. Fabrication of PDMS-based triboelectric nanogenerator for self-sustained power source application. So-Yoon Shin, B. Saravanakumar, **Ananthakumar Ramadoss**, Sang Jae Kim, **International Journal of Energy Research**, (2016), 40(3), 288-297. <https://doi.org/10.1002/er.3376> IF: 4.3; Q2
- 2015:
75. Thermally reduced graphene-coated fabrics for flexible supercapacitors and self-powered systems. **Ananthakumar Ramadoss**, B. Saravanakumar, S. J. Kim, **Nano Energy** (2015), 15, 587-597. <https://doi.org/10.1016/j.nanoen.2015.05.009> IF: 16.8; Q1
 76. Piezoelectric driven self-charging supercapacitor power cell. **Ananthakumar Ramadoss**, B. Saravanakumar, S. W. Lee, Y. S. Kim, S. J. Kim, Z. L. Wang, **ACS Nano** (2015), 9(4), 4337-4345. <https://doi.org/10.1021/acsnano.5b00759> IF: 15.8; Q1

77. Bio-molecule assisted aggregation of ZnWO_4 nanoparticles (NPs) into chain-like assemblies: material for high performance supercapacitor and as catalyst for benzyl alcohol oxidation. Sivasankara Rao Ede, **Ananthakumar Ramadoss**, U. Nithiyanantham, S. Anantharaj, Subrata Kundu, **ACS Inorganic Chemistry**, (2015), 54(8), 3851–3863. <https://doi.org/10.1021/acs.inorgchem.5b00018> IF: 4.3; Q1
78. Vanadium pentoxide/reduced graphene oxide composite as an efficient electrode material for high-performance supercapacitors and self-powered systems. **Ananthakumar Ramadoss**, Balasubramaniam Saravanakumar, Sang-Jae Kim, **Energy Technology**, (2015), 3(9), 913-924. <https://doi.org/10.1002/ente.201500059> IF: 3.6; Q2
79. Corrosion, hemocompatibility and bacterial adhesion behavior of TiZrN coated 316L SS for bioimplants. Gobi Saravanan Kaliaraj, V. Vishwakarma, **Ananthakumar Ramadoss**, D. Ramachandran, A. M. Rabel, **Bulletin of Materials Science**, (2015), 38(4), 951-955. IF: 1.9; Q3
80. Bacterial adhesion and hemocompatibility behavior of TiN, TiO_2 single and TiN/ TiO_2 multilayer coated 316L SS for bioimplants. Vinita Vishwakarma, Gobi Saravanan Kaliaraj, D. Ramachandran, **Ananthakumar Ramadoss**, **Journal of Biomimetics, Biomaterials and Biomedical Engineering**, (2015), 25, 73-82. <https://doi.org/10.4028/www.scientific.net/JBBBE.25.73>

2014

81. Hierarchically structured $\text{TiO}_2@\text{MnO}_2$ nanowall arrays as potential electrode material for high-performance supercapacitors. **Ananthakumar Ramadoss**, Sang Jae Kim, **International Journal of Hydrogen Energy**, (2014), 39(23), 12201-12212. <https://doi.org/10.1016/j.ijhydene.2014.05.118> IF: 8.1; Q1
82. Enhanced supercapacitor performance using hierarchical TiO_2 nanorod/ $\text{Co}(\text{OH})_2$ nanowall array electrodes. **Ananthakumar Ramadoss**, Sang Jae Kim, **Electrochimica Acta**, (2014), 136, 105-111. <https://doi.org/10.1016/j.electacta.2014.05.014> IF: 5.5; Q1
83. DNA mediated wire-like clusters of self-assembled TiO_2 nanomaterials: Supercapacitor and dye sensitized solar cell applications. U Nithiyanantham, **Ananthakumar Ramadoss**, Sivasankara Rao Ede, Subrata Kundu, **Nanoscale**, (2014), 6, 8010-8023. <https://doi.org/10.1039/C4NR01836B> IF: 5.8; Q1
84. Enhanced catalytic and supercapacitor activities of DNA encapsulated $\beta\text{-MnO}_2$ nanomaterials. Sivasankara Rao Ede, **Ananthakumar Ramadoss**, S. Anantharaj, U Nithiyanantham, Subrata Kundu, **Physical Chemistry Chemical Physics**, (2014), 16, 21846-21859. <https://doi.org/10.1039/C4CP02884H> IF: 2.9; Q1
85. Supercapacitor and dye sensitized solar cell (DSSC) applications of shape-selective TiO_2 nanostructures. U. Nithiyanantham, **Ananthakumar Ramadoss**, Subrata Kundu, **RSC Advances**, (2014), 4, 35659-35672. <https://doi.org/10.1039/C4RA06226D> IF: 3.9; Q2
86. 3D hierarchically assembled porous wrinkled paper like structure of ZnCo_2O_4 and Co-ZnO@C as anode materials for lithium-ion batteries. Arnab Kanti Giri, Provas Pal, **Ramadoss Ananthakumar**, Muthirulandi Jayachandran, Sourindra Mahanty, Asit Baran Panda, **Crystal Growth & Design**, (2014), 14(7), 3352-3359. <https://doi.org/10.1021/cg500282n> IF: 3.2; Q2
87. Enhanced activity of hydrothermally synthesized mesoporous MoS_2 nanostructure for high performance supercapacitor applications. **Ananthakumar Ramadoss**, Taehyun Kim,

- Gui-Shik Kim, Sang Jae Kim, **New Journal of Chemistry**, (2014), 38, 2379-2385. <https://doi.org/10.1039/C3NJ01558K> IF: 2.7; Q2
88. Studies of calcium-precipitating oral bacterial adhesion on TiN, TiO₂ single layer and TiN/TiO₂ multilayer-coated 316L SS. Gobi Saravanan Kaliaraj, **Ananthakumar Ramadoss**, Maruthamuthu Sundaram, Subramanian Balasubramanian, Jayachandran Muthirulandi, **Journal of Materials Science**, (2014), 49, 7172-7180. <https://doi.org/10.1007/s10853-014-8425-7> IF: 3.5; Q1
 89. Novel Cu/CuO/ZnO hybrid hierarchical nanostructures for non-enzymatic glucose sensor application. Shin SoYoon, **Ananthakumar Ramadoss**, Balasubramanian Saravanakumar, Sang Jae Kim, **Journal of Electroanalytical Chemistry**, (2014), 717-718, 90-95. <https://doi.org/10.1016/j.jelechem.2014.01.012> IF: 4.1; Q1
- 2013:**
90. Fabrication of reduced graphene oxide/TiO₂ nanorod/reduced graphene oxide hybrid nanostructures as electrode materials for supercapacitor applications. **Ananthakumar Ramadoss**, Gui-Shik Kim, Sang Jae Kim, **CrystEngComm**, (2013), 15, 10222-10229. <https://doi.org/10.1039/C3CE41517A> IF: 2.6; Q2
 91. Improved activity of a graphene–TiO₂ hybrid electrode in an electrochemical supercapacitor. Ananthakumar Ramadoss, Sang Jae Kim, **Carbon**, (2013), 63, 434-445. <https://doi.org/10.1016/j.carbon.2013.07.006> IF: 10.5; Q1
 92. Nanostructured TiO₂/TiN multilayer coatings on AISI 316L stainless steel for biomedical applications. **Ananthakumar Ramadoss**, Sang Jae Kim, **Science of Advanced Materials**, (2013), 5 (9), 1168-1178. <https://doi.org/10.1166/sam.2013.1569> IF: 0.9; Q3
 93. Facile preparation and electrochemical characterization of graphene-ZnO nanocomposite for supercapacitor applications. **Ananthakumar Ramadoss**, S. J. Kim, **Materials Chemistry and Physics**, (2013), 140, 405-411. <https://doi.org/10.1016/j.matchemphys.2013.03.057> IF: 4.3; Q1
 94. Vertically aligned TiO₂ nanorod arrays for electrochemical supercapacitor. **Ananthakumar Ramadoss**, Sang Jae Kim, **Journal of Alloys and Compounds**, (2013), 561, 262-267. <https://doi.org/10.1016/j.jallcom.2013.02.015> IF: 5.8; Q1
 95. Graphene oxide nanosheets for corrosion-inhibiting coating. K. Karthikeyan, **Ananthakumar Ramadoss**, Sang Jae Kim, **Science of Advanced Materials**, (2013), 5, 406-410. <https://doi.org/10.1166/sam.2013.1471> IF: 0.9; Q3
 96. Suitability evaluation of plasma ion beam sputtered TiN / TiO_xN_y multilayers on steel for bio implants. B. Subramanian, **R. Ananthakumar**, S. Yugewaran, M. Jayachandran, M. Takahashi, A. Kobayashi, **Vacuum**, (2013), 88 (1), 108-113. <https://doi.org/10.1016/j.vacuum.2012.02.005> IF: 3.8; Q1
- 2012:**
97. Synthesis and characterization of HfO₂ nanoparticles by sonochemical approach. **Ananthakumar Ramadoss**, Sang Jae Kim, **Journal of Alloys and Compounds**, (2012), 544, 115-119. <https://doi.org/10.1016/j.jallcom.2012.08.005> IF: 5.8; Q1
 98. Resistive switching behaviors of HfO₂ thin films by sol-gel spin coating for nonvolatile memory applications. **Ananthakumar Ramadoss**, Karthikeyan Krishnamoorthy, Sang Jae Kim, **Applied Physics Express**, (2012), 5(8), art. no. 085803-085805. <https://doi.org/10.1143/APEX.5.085803> IF: 2.3; Q3

99. Novel synthesis of hafnium oxide nanoparticles by precipitation method and its characterization. **Ananthakumar Ramadoss**, Karthikeyan Krishnamoorthy, Sang Jae Kim, **Materials Research Bulletin**, (2012), 47(9), 2680-2684. <https://doi.org/10.1016/j.materresbull.2012.05.051> IF: 5.3; Q2
100. Facile synthesis of hafnium oxide nanoparticles via precipitation method. **Ananthakumar Ramadoss**, Karthikeyan Krishnamoorthy, Sang Jae Kim, **Materials Letters**, (2012), 75, 215-217. <https://doi.org/10.1016/j.matlet.2012.02.034> IF: 2.7; Q2
101. Effect of substrate temperature on structural, morphological and optical properties of crystalline titanium dioxide films prepared by DC reactive magnetron sputtering. **R. Ananthakumar**, B. Subramanian, S. Yugeswaran, M. Jayachandran, **Journal of Materials Science: Materials in Electronics**, (2012), 23 (10), 1898-1904. <https://doi.org/10.1007/s10854-012-0681-1> IF: 2.8; Q2
102. Nanocomposite Ti-Si-N coatings deposited by reactive dc magnetron sputtering for biomedical applications. B. Subramanian, **R. Ananthakumar**, A. Kobayashi, M. Jayachandran, **Journal of the American Ceramic Society**, (2012), 95 (9), 2746-2752. <https://doi.org/10.1111/j.1551-2916.2011.05029.x> IF: 3.5 Q1
103. Surface modification of 316L stainless steel with magnetron sputtered TiN/VN nanoscale multilayers for bio implant applications. B. Subramanian, **R. Ananthakumar**, A. Kobayashi, M. Jayachandran, **Journal of Materials Science: Materials in Medicine**, (2012), 23 (2), 329-338. <https://doi.org/10.1007/s10856-011-4500-7> IF: 4.2; Q2
104. Electrochemical corrosion and materials properties of reactively sputtered TiN/TiAlN multilayer coatings. **R. Ananthakumar**, B. Subramanian, A. Kobayashi, M. Jayachandran, **Ceramics International**, (2012), 38 (1), 477-485. <https://doi.org/10.1016/j.ceramint.2011.07.030> IF: 5.1; Q1
- 2011:**
105. Effect of substrate temperature on the properties of reactively sputtered TiN/NbN multilayers. B. Subramanian, **R. Ananthakumar**, M. Jayachandran, **Crystal Research and Technology**, (2011), 46 (12), 1273-1282. <https://doi.org/10.1002/crat.201100353> IF: 1.5; Q3
106. A comparative study of titanium nitride (TiN), titanium oxy nitride (TiON) and titanium aluminum nitride (TiAlN), as surface coatings for bio implants. B. Subramanian, C.V. Muraleedharan, **R. Ananthakumar**, M. Jayachandran, **Surface & Coatings Technology**, (2011), 205 (21-22), 5014-5020. <https://doi.org/10.1016/j.surfcoat.2011.05.004> IF: 5.3; Q1
107. Influence of substrate temperature on the materials properties of reactive DC magnetron sputtered Ti/TiN multilayered thin films. B. Subramanian, **R. Ananthakumar**, V.S. Vidhya, M. Jayachandran, **Materials Science and Engineering: B**, (2011), 176(1), 1-7. <https://doi.org/10.1016/j.mseb.2010.08.004> IF: 3.9; Q2
108. Structural and tribological properties of DC reactive magnetron sputtered Titanium/Titanium Nitride (Ti/TiN) multilayered coatings. B. Subramanian, **R. Ananthakumar**, M. Jayachandran, **Surface & Coatings Technology**, (2011), 205, 3485-3492. <https://doi.org/10.1016/j.surfcoat.2010.12.016> IF: 5.3; Q1
109. Effect of nitrogen ion implantation on structural and microstructural properties of reactive magnetron sputtered TiN thin films. B. Subramanian, **R. Ananthakumar**, A. Kobayashi,

M. Jayachandran, **Transactions of the Institute of Metal Finishing**, (2011), 89, 28-32.
<https://doi.org/10.1179/174591911X12953490762310> IF: 1.2; Q3

Proceedings:

1. PVDF-g-PAN based efficient solid state polymer electrolyte for platinum free dye sensitized solar cell application, V. S. Manikandan, Sanath Kumar, Aiswarya Sahu, A. K. Palai, **Ananthakumar Ramadoss**, and S. Mohanty, **AIP Conference Proceedings (2019)**, 2115, 030131.
2. Crystal phase study of PVDF-TrFE with added Fe doped ZnO nanoparticles. Rajesh Sahoo, Suvrajyoti Mishra, **Ananthakumar Ramadoss**, Lakshmi Unnikrishnan, Smita Mohanty, Swapna Mahapatra, and Sanjay K. Nayak, **AIP Conference Proceedings (2019)**, 2115, 030200.
3. Structural and corrosion behavior of bilayer and alloyed films of Cu-Ni. K. Gopi Saravanan, **R. Ananthakumar**, D. Ramachandran, T.S. Shyju, Vishwakarma Vinita, Sang Jae Kim, P. Kuppasami, **IEEE Explore Conference Publications-2013**, Proceedings of the International Conference on "Advanced Nanomaterials and Emerging Engineering Technologies", **ICANMEET 2013, Article number 6609270, (2013) 179-180.**
4. Anodic corrosion behavior of nanostructured TiN, TiO₂ single layer and TiN/TiO₂ multilayer coated 316L SS. K. Gopi Saravanan, **R. Ananthakumar**, B. Subramaniam, S. Maruthamuthu, M. Jayachandran, **IEEE Explore Conference Publications-2013**, Proceedings of the International Conference on "Advanced Nanomaterials and Emerging Engineering Technologies", **ICANMEET 2013, Article number 6609309, (2013) 331-334.**

Books/Reports/Chapters:

Authored about 24 chapters as first (01), corresponding (19), and co-author (04):

Book:

1. Electrolytes for Energy Storage Applications: Fundamentals and Advances, Edited By Ramesh K. Guduru, Saravanakumar Balasubramaniam, Venkateswarlu Manne, **Ananthakumar Ramadoss**, Rambabu Bobba, Routledge Taylor & Francis Group, November (2024), ISBN 9781032452630 DOI: 10.1201/9781003441182. <http://www.routledge.com/9781032452630>

Books Authored: Chapters

2024:

1. Chapter-03, Electrolytes and Additives for Li-ion Batteries, Prasanna Sekar, **Ananthakumar Ramadoss**, Balasubramaniam Saravanakumar, Electrolytes for Energy Storage Applications: Fundamentals and Advances, November (2024) CRC Press, DOI: 10.1201/9781003441182.
2. Chapter-07, Energy Storage Breakthroughs: Supercapacitors in Healthcare Applications, Jyoti Prakash Das, Sang Jae Kim, **Ananthakumar Ramadoss***, Sustainable Supercapacitors: Next-Generation of Green Energy Storage Devices, (2024) Pages 182-226. John Wiley & Sons, Inc. <https://doi.org/10.1002/9781394237920.ch7>.

3. Chapter-02, Vol 1: Benchmarking Electrode Materials for High Energy Lithium Ion batteries, Shruti Kannan, Arun Thirumurugan, Ranjith Krishna Pai, **Ananthakumar Ramadoss***, Nanostructured Materials for Energy Storage, Nanostructured Materials for Energy Storage, August (2024) 33-73 Wiley-VCH GmbH, <https://doi.org/10.1002/9783527838851.ch2>.
 4. Chapter-39, Vol 2: Core–Shell Structured Nanomaterials for High-Performance Supercapacitors, Arun Thirumurugan, Shajahan Shanavas, Shanmuga Sundar Dhanabalan, Natarajan Chidhambaram, Suyambrakasam Gobalakrishnan, Nagarajan Dineshbabu, Rednam Udayabhaskar, Shruti Kannan, Mauricio J. Morel, **Ananthakumar Ramadoss***, Nanostructured Materials for Energy Storage, August (2024) 1469-1504 Wiley-VCH GmbH, <https://doi.org/10.1002/9783527838851.ch39>.
 5. Chapter-40, Vol 2: Bio-Inspired Nanomaterials for High-Performance Supercapacitors: Recent Developments and Future Scope, Arun Thirumurugan, Ranjith Krishna Pai, Carolina Venegas Abarzúa, Rednam Udayabhaskar, Mauricio J. Morel, **Ananthakumar Ramadoss***, Nanostructured Materials for Energy Storage, August (2024) 1505-1540 Wiley-VCH GmbH, <https://doi.org/10.1002/9783527838851.ch40>.
 6. Chapter 2: Prospects and Recent Advancements in Ecologically Driven Electroactive Materials for Supercapacitors, Ankita Mohanty, Ranjith Krishna Pai, **Ananthakumar Ramadoss***, Eco-Friendly Supercapacitors: Design and Future Perspectives in Sustainable and Green Energy Storage Devices, ACS, 2024, Pages 21-51. 10.1021/bk-2024-1471.ch002. <https://pubs.acs.org/doi/10.1021/bk-2024-1471>
 7. Chapter 12: MXene-Reinforced Polymer Composites as Flexible Wearable Sensors, J. Aarthi, K. Selvaraju, S. Gowri, K. Kirubavathi, **Ananthakumar Ramadoss***, In MXene Reinforced Polymer Composites, Wiley Scrivener Publishing LLC, 2024, Pages 389-421. <https://doi.org/10.1002/9781119901280.ch12>
 8. Chapter 12: Hexagonal boron nitride-based antifriction and anticorrosive coatings, Siva Tamilvanan, **Ananthakumar Ramadoss***, Hexagonal Boron Nitride Synthesis, Properties, and Applications, Elsevier, 2024, Pages 295-319. <https://doi.org/10.1016/B978-0-443-18843-5.00011-2>
 9. Chapter 11: Nanomaterial Coatings on Textile Structures for Antibacterial and Antiviral Applications, Siva Tamilvanan, **Ananthakumar Ramadoss***, Antibacterial and Antiviral Functional Materials, ACS, 2024, Pages 329-359. <https://pubs.acs.org/doi/abs/10.1021/bk-2024-1472.ch011>
- 2023:**
10. Chapter 10: Biomass-derived Highly Porous Carbon for High-rate Supercapacitors: Advances and Limitations, J. Aarthi, K. Selvaraju, S. Gowri, K. Kirubavathi, **Ananthakumar Ramadoss***, Low-carbon Supercapacitors: Towards Sustainability in Energy Storage Devices, RSC, 2023, Pages 262-290. <https://doi.org/10.1039/BK9781837672479-00262>
 11. Chapter 19: Fluoropolymer Nanocomposites for Superhydrophobic Antireflective and Anticorrosive Coatings, T. Siva, Alekhika Tripathy, **Ananthakumar Ramadoss***, Advanced Fluoropolymer Nanocomposites: Fabrication, Processing, Characterization and Applications. Elsevier, 2023, Pages 681-718. <https://doi.org/10.1016/B978-0-323-95335-1.00013-X>

12. Chapter 11: Fluoropolymer Nanocomposites for Dielectric Applications Suvrajyoti Mishra, **Ananthakumar Ramadoss***, Advanced Fluoropolymer Nanocomposites: Fabrication, Processing, Characterization and Applications. Elsevier, 2023, Pages 359-389. <https://doi.org/10.1016/B978-0-323-95335-1.00019-0>
13. Chapter 05: Flexoelectricity in nano-generator ceramics Shruti Kannan, Alekhika Tripathy, T. Siva, **Ananthakumar Ramadoss***, Flexoelectricity in Ceramics and their Application. Elsevier, (2023) 129-156. <https://doi.org/10.1016/B978-0-323-95270-5.00001-6>
14. Chapter 02: Flexoelectricity in BaTiO₃ based ceramics. Alekhika Tripathy, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, Flexoelectricity in Ceramics and their Application. Elsevier, (2023) 45-66. <https://doi.org/10.1016/B978-0-323-95270-5.00005-3>
15. Chapter 8: Inkjet Printing Fabrication of Supercapacitors Hari Narayanan KR, Shruti Kannan, **Ananthakumar Ramadoss***, In: Hussain, C.M., Ahamed, M.B. (eds) Functionalized Nanomaterials Based Supercapacitor. Materials Horizons: From Nature to Nanomaterials. Springer, Singapore. (2023), pp 197–222. https://doi.org/10.1007/978-981-99-3021-0_8
16. Chapter 5: Additive Manufacturing for Functionalized Nanomaterials Dedicated to Supercapacitors, Jyoti Prakash Das, Sang Jae Kim*, **Ananthakumar Ramadoss***, In: Hussain, C.M., Ahamed, M.B. (eds) Functionalized Nanomaterials Based Supercapacitor. Materials Horizons: From Nature to Nanomaterials. Springer, Singapore. (2023) pp 131–160. https://doi.org/10.1007/978-981-99-3021-0_5
17. Chapter 25 - Functionalized nanofibers for piezoelectric energy harvesting applications. Alekhika Tripathy, Saravanakumar Balasubramaniam, Alluri Nagamalleswara Rao, **Ananthakumar Ramadoss***, Functionalized Nanofibers: Synthesis and Industrial Applications. Elsevier, 2023, Pages 719-751. <https://doi.org/10.1016/B978-0-323-99461-3.00020-0>
18. Chapter 23 - Functionalized nanofibers for high-performance supercapacitor applications, Nilimapriyadarsini Swain, Ankita Mohanty, Saravanakumar Balasubramaniam, **Ananthakumar Ramadoss***, Functionalized Nanofibers: Synthesis and Industrial Applications. Elsevier, 2023, Pages 665-688. <https://doi.org/10.1016/B978-0-323-99461-3.00003-0>
19. Chapter 15-Impact of environmental conditions on the tribological performance of polymeric composites Siva Tamilvanan, Alekhika Tripathy, **Ananthakumar Ramadoss***, Tribology of Polymers, Polymer Composites, and Polymer Nanocomposites Elsevier Series on Tribology and Surface Engineering, Elsevier, 2023, Pages 437-466. <https://doi.org/10.1016/B978-0-323-90748-4.00006-6>
20. Chapter 10 - Hybrid supercapacitors, formation, and new advances with different electrochemical electrodes based on layered double hydroxides (LDHs), metal–organic framework (MOF) materials, smart supercapacitors Arun Thirumurugan, Shanmuga Sundar Dhanabalan, S. Shanavas, R. Udayabhaskar, Mauricio J. Morel, N. Dineshbabu, K. Ravichandran, Lukas Schmidt-Mende, and **Ananthakumar Ramadoss***, Smart Supercapacitors Fundamentals, Structures, and Applications, Elsevier, 2023, Pages 199-226. <https://doi.org/10.1016/B978-0-323-90530-5.00032-0>

21. Chapter 21 - Recent advances in microsupercapacitors: material design, system construction, and applications Ankita Mohanty, Nilimapriyadarsini Swain, **Ananthakumar Ramadoss***, Smart Supercapacitors Fundamentals, Structures, and Applications, Elsevier, 2023, Pages 559-584. <https://doi.org/10.1016/B978-0-323-90530-5.00028-9>
 22. Chapter 29 - Quasi-solid-state electrolytes for pseudocapacitors and batteries. Rajesh Sahoo, Smita Mohanty, **Ananthakumar Ramadoss***, Smart Supercapacitors Fundamentals, Structures, and Applications, Elsevier, 2023, Pages 745-778. <https://doi.org/10.1016/B978-0-323-90530-5.00029-0>
 23. Chapter-06: Alginate-Based Superabsorbents, D. Thirumoolan, T. Siva, **R. Ananthakumar** & K. S. Nathiga Nambi, Bio-based Superabsorbents. Engineering Materials. Springer 2023, 93-114. https://doi.org/10.1007/978-981-99-3094-4_6
- 2022:**
24. Chapter 01: Nanostructured Materials for Supercapacitors Arun Thirumurugan, Kiruthiga Ramakrishnan, **Ananthakumar Ramadoss**, Prabhakaran Thandapani, Perarasu Thangavelu, R. Udayabhaskar, Mauricio J. Morel, Shanmuga Sundar Dhanabalan, N. Dineshbabu, K. Ravichandran, Radhamanohar Aepuru, R. V. Mangalaraja & Ali Akbari-Fakhrabadi, Nanostructured Materials for Supercapacitors. Advances in Material Research and Technology. Springer Nature Switzerland AG, 2022. https://doi.org/10.1007/978-3-030-99302-3_1
 25. Chapter 8: A Concise Summary of Recent Research on MOF-Based Flexible Supercapacitors. Ankita Mohanty, **Ananthakumar Ramadoss***, Current and Future Developments in Nanomaterials, Bentham Science Publishers, 2022, Pp: 141-158 (18). DOI: 10.2174/9789815050714122030011
- 2021:**
26. Chapter-9: Layered double hydroxide as electrode material for high-performance supercapattery, Aruni Shajkumar, Sarbani Sahu, Navaneethan Duraisamy, Lukas Schmidt-Mende and **Ananthakumar Ramadoss***, Advances in Supercapacitor and Supercapattery 1st Edition Innovations in Energy Storage Devices, Elsevier, 2021, Pages 199-254. <https://doi.org/10.1016/B978-0-12-819897-1.00011-2>
- 2019:**
27. Chapter-6: "Diverse Applications of Organic-Inorganic Nanocomposites: Emerging Research and Opportunities", Aruni Shajkumar and **Ananthakumar Ramadoss**, IGI Global Platform, Recent Advancements in Photocatalytic Nanocomposites, 2019, 136-161. DOI: 10.4018/978-1-7998-1530-3.ch006.
- 2018:**
28. Chapter-8: Fabrication and characterization of supercapacitors towards self-powered system, **A. Ramadoss**, B. Saravanakumar, S. J. Kim, Adv. Energy Storage Technol., InTech Open Access, 2018, 167. DOI: 10.5772/intechopen.73647.
- 2011:**
29. Surface characterization and biocompatibility studies on reactive magnetron sputtered TiN/NbN nanostructured multilayer thin films. B. Subramanian, **R. Ananthakumar**, C. V. Muraleedharan and M. Jayachandran, Biomedical Applications of Nanostructured Materials, Macmillan Publishers India Limited, 2011, P.3-8.

Guest Editor for Special Issue:**2019:**

1. Nanomaterials for Electrochemical Energy Conversion and Storage Technologies, Journal of Nanomaterials, 2019.

Conferences:

- Presented the findings in several international forums: **Invited Talk: >15; International conferences: >100; National conferences: >25; First Author: >20; Corr. Author: >50; Co-Author: >35.**

Last Five-Year Conferences:

S.N.	Title of Paper	Name of the Authors	Name of Conference / Seminar / Workshop / Symposia etc.	Date(s) of the event	Organized by
1.	Dendrimer-like Boron Nitride Grown on 3D Porous Metallic Framework as Electrodes for Supercapacitors	Shruti Kannan, Lukas Schmidt-Mende, Shamima Hussain, Ananthakumar Ramadoss*	International Conference on Advanced Functional Materials and Devices (AFMD-2024)	February 26 th – 29 th 2024	SRM Institute of Science and Technology, Kattankulathur
2.	Hierarchically Porous Niobium Carbide as a Novel Electrode Material for Supercapacitors	Shruti Kannan, T. Siva, Lukas Schmidt-Mende, Ananthakumar Ramadoss*	International Conference on Advanced Functional Materials and Devices (AFMD-2024)	February 26 th – 29 th 2024	SRM Institute of Science and Technology, Kattankulathur
3.	High Performance 3D Porous Nickel Current Collectors Coated With Niobium Nitride As Anodes For Energy Storage Applications	Shruti Kannan, Gobi Saravanan, B. Subramanian, Ananthakumar Ramadoss*	18 th Asian Conference on Solid State Ionics (ACSSI-2024)	19 th – 23 rd February 2024	Meenakshi College for Women, Kodambakkam
4.	Hybrid 3D Network for Electrodes for Supercapacitors	Ananthakumar Ramadoss*	International Meeting on Energy Storage Devices 2023 & Industry-Academia Conclave	December 7-10th, 2023	Indian Institute of Technology Roorkee
5.	Smart Self-Driven Systems: Integration of Energy Harvesting & Storage	Ananthakumar Ramadoss*	Online International Conference on "functional Nanomaterials and Nanodevices"-ICFNN 2023	September 26, 2023	Chettinad Academy of Research and Education, Chennai
6.	Mechanical Energy Harvesting from Flexible 3D-Piezoelectric Polymer Composite Foam Structure	Ananthakumar Ramadoss*	Global Indian Young Scientists Research and Innovation Conference 2023	31 May – 2 June	GI-YSRI, National Agricultural Science Complex-ICAR, New Delhi-110012

7.	Self-Powered Systems	Ananthakumar Ramadoss*	National Science Day Celebration, Noorul Islam	Feb-23	Noorul Islam Centre For Higher Education, NKumaracoil – 629 180, Kanyakumari District, Tamilnadu
8.	Engineering of 3D Porous Materials for Supercapacitors	Ananthakumar Ramadoss*	National Conference on Recent Trends in Electronics, Mathematics & Statistics (NCRTEMS – 2023)	Mar-23	Kristu Jayanti College, Autonomous, Bengaluru, Karnataka 560077
9.	Dual Templated-Based Synthesis of Smart Zeolites and its Anticorrosion Coatings	T. Siva *, B. Saravanakumar, Ananthakumar Ramadoss*	20 th National Conference On Corrosion Control	December 7-9th, 2023	NCCI, CECRI, Karaikudi, at Jenneys Residency, Coimbatore, Tamilnadu
10.	Three-dimensional Porous Niobium Nitride Electrodes for High-Performance Supercapacitors	Shruti Kannan, Ananthakumar Ramadoss*	International Conference on Energy Conversion and Storage-2023 (IC-ECS-2023)	June 21st to 23rd , 2023	Amrita Vishwa Vidyapeetham, Coimbatore
11.	Optimization of PCM-Based Thermal Management System for Supercapacitors	Hari Narayanan KR, Shruti Kannan, Ananthakumar Ramadoss*	International Conference on Energy Conversion and Storage-2023 (IC-ECS-2023)	June 21st to 23rd , 2023	Amrita Vishwa Vidyapeetham, Coimbatore
12.	Vapour Growth Process of Carbon-doped Iron Nitride-based Binder-free 3D Bimetallic Negative Electrode for Hybrid Supercapacitors	Ankita Mohanty, Ananthakumar Ramadoss*	7 th International Conference on Nanoscience and Nanotechnology (ICONN-2023 online mode)	March 27 to -29 th , 2023	Department of Physics and Nanotechnology , SRMIST, Tamilnadu
13.	Analysis of Li-Ion Battery Discharge Behavior using ANSYS Fluent	Hari Narayanan KR, Ananthakumar Ramadoss*	7 th International Conference on Nanoscience and Nanotechnology (ICONN-2023 online mode)	March 27 to -29 th , 2023	Department of Physics and Nanotechnology , SRMIST, Tamilnadu
14.	Flexible Piezoelectric BTO-KNN Composite Foam based Tile for Effective Mechanical Energy Harvesting	Srividhya Kalyanaraman, Ananthakumar Ramadoss*	7 th International Conference on Nanoscience and Nanotechnology (ICONN-2023 online mode)	March 27 to -29 th , 2023	Department of Physics and Nanotechnology , SRMIST, Tamilnadu

15.	Transition Metal Nitride-coated Vertically Aligned Electrodes for Supercapacitors	Shruti Kannan, Shamima Hussain, Ananthakumar Ramadoss*	7 th International Conference on Nanoscience and Nanotechnology (ICONN-2023 online mode)	March 27 to -29 th , 2023	Department of Physics and Nanotechnology, SRMIST, Tamilnadu
16.	Thermal Management of Lithium-ion Battery Systems using ANSYS Fluent	Hari Narayanan KR, Shruti Kannan, Ananthakumar Ramadoss*	International Conference on Energy Conversion and Storage (IECS-2023)	18-20 January 2023	IIT Madras, Chennai
17.	Piezoelectrochemical effect and its applications	Ananthakumar Ramadoss*	Refresher Course in Physics	07.10.2022 to 20.10.2022	Human Resource Development Centre of Bharathiar University, Coimbatore - 641 046
18.	Electrochemical Impedance Spectroscopy: Fundamental and Applications	Ananthakumar Ramadoss*	High-End Workshop (KARYASHALA) on “Electrochemical Evaluation of Membrane-Electrode-Assembly for Fuel Cells”	March 03, 2023	CIPET: SARP-APDDRL, Bengaluru
19.	Electrochemical Methods	Ananthakumar Ramadoss*	Online short term course on 'Characterization of Materials'	Feb 28, 2023	CIPET: IPT, Bhubaneswar
20.	Fabrication of PVDF and Bismuth Ferrite Nanocomposite based Flexible Foam for Piezoelectric Nanogenerator	Alekhika Tripathy, Ananthakumar Ramadoss*	66th DAE Solid State Physics Symposium	December 18-22, 2022	Birla Institute of Technology Mesra, Ranchi, Jharkhand, India
21.	PVDF-KNN Composite-based Flexible Piezoelectric Foam for Energy Harvesting Applications	Swatishree Muduli, Alekhika Tripathy, Ananthakumar Ramadoss*	International Online Conference on Nano Materials (ICN 2022)	12-14 August 2022	Mahatma Gandhi University, Kottayam, Kerala
22.	Self-Sacrificing Template Assisted 3D Binder-Free Microflower-like NiCo Metal-Organic Framework as a Positive Electrode for Hybrid Supercapacitor	A. Mohanty, K-N. Kang, B. Saravanakumar, J-H. Jang, and A. Ramadoss*	13 th International Conference on Advancement in Polymeric Materials (APM-2022)	March 8-12, 2022	CIPET: SARP-ARSTPS, Chennai
23.	Engineering of Foam Based Piezoelectric Nanogenerator using Barium Calcium Titanate Nanoparticles Ink	B. Das, S. Mohanty, and A. Ramadoss*	13th International E-Conference on “Advancements in Polymeric Materials (APM-2022)	March 8-12, 2022	CIPET: SARP-ARSTPS, Chennai

24.	Nanosheet Structured 3D Porous Mn ₃ P/Ni as an Efficient Electrode Material for Energy Storage Application	Nilimapriyadarsini Swain, Balasubramaniam Saravanakumar, Smita Mohanty, Ananthakumar Ramadoss*	13th International E-Conference on “Advancements in Polymeric Materials (APM-2022)	March 8-12, 2022	CIPET: SARP-ARSTPS, Chennai
25.	Composite Ink on a flexible 3D porous substrate for improved piezoelectric energy harvesting	Sanskriti Smaranika Dani, B Saravanakumar, Ananthakumar Ramadoss*	World Sensor Congress (WSC-2022)	March 8-10, 2022	Centre for Materials for Electronics Technology (C-MET), Thrissur Kerala
26.	Flexible contact type vibration sensor with modified PVDF composite films	R. Sahoo, S. Mohanty, and A. Ramadoss*	World Sensor Congress (WSC-2022)	March 8-10, 2022	Centre for Materials for Electronics Technology (C-MET), Thrissur Kerala
27.	Fabrication and characterization of ABS based composite filaments with mono and hybrid filler for 3D printing of electronics	Jyotiprakash Das, Smita Mohanty, Ananthakumar Ramadoss*	Materials for Energy and Environment (MEE-2022)	27-28 January 2022	Academy of Maritime Education and Training (AMET), Chennai
28.	3D Hybrid Nanostructured Materials for Energy Technologies	Ananthakumar Ramadoss*	Webinar on Computer Architecture and Organization	December 22, 2021	Thanthai Hans Roever College, Perambalur
29.	Three Dimensional Nanostructures for Energy Storage Devices	Ananthakumar Ramadoss*	Online Short Term Course on Application of Advanced Nanomaterials in Science and Engineering (AANSE-2021)”	05 th & 06 th May 2021	CIPET:IPT, Bhubaneswar
30.	Advances on Three Dimensional Architecture Electrode Materials for Electrochemical Energy Storage	Ananthakumar Ramadoss*	Online Short Term Course on Nanostructured Materials: Synthesis, Characterization and Applications	Jan 28, 2021	CIPET:IPT, Bhubaneswar
31.	Fabrication and characterization of Polyvinylidene Fluoride/NaCl porous foam for boosted mechanical energy harvesting and sensing	Jyotiprakash Das, Smita Mohanty, Ananthakumar Ramadoss*	The Third Indian Materials Conclave and the 32 nd Annual General Meeting of MRSI	20-23 December 2021	Indian Institute of Technology, Madras

32.	Ferroelectric response of modified PVDF-TrFE/BTO composite structure	R. Sahoo, S. Mohanty, and A. Ramadoss	The Third Indian Materials Conclave and the 32 nd Annual General Meeting of MRSI	20-23 December 2021	Indian Institute of Technology, Madras
33.	3D Bimetallic Organic Framework (BiMo-MOF) as Binder-Free Negative Electrode for Hybrid Supercapacitor	A. Mohanty, and A. Ramadoss*	International Virtual Conference on Recent Trends in Materials Science (ICRTMS – 2021)	20th-21st December, 2021	Bannari Amman Institute of Technology Sathyamangalam Erode Tamil Nadu
34.	Ceramic-Polymer Composite ink on a flexible substrate for enhanced Micro-energy harvesting	S. S. Dani, B. Saravanakumar, S. Mohanty, and A. Ramadoss*	International Virtual Conference on Recent Trends in Materials Science (ICRTMS – 2021)	20th-21st December, 2021	Bannari Amman Institute of Technology Sathyamangalam Erode Tamil Nadu
35.	ABS/CNT-graphite Composite Filament Fabrication and Characterization for 3D Printing of Functional Device	Jyotiprakash Das, Smita Mohanty, Sanjay K Nayak, and Ananthakumar Ramadoss*	Additive Manufacturing Technologies - AM 2021	16 - 18th December 2021	BIEC, Bengaluru
36.	3D Hierarchical NiCo-MOF: A Potential Electroactive Material for Energy Storage Device	A. Mohanty, and A. Ramadoss*	CHEMSCI2021: Leaders in the field symposium	10 th Dec- 15 th Dec, 2021	
37.	Flexible PVDF-TrFE/KNN Nanocomposite Films for Piezoelectric Energy Harvesting	Alekhika Tripathy, Smita Mohanty and Ananthakumar Ramadoss*	International Conference on Advanced Materials and Mechanical Characterization (ICAMMC-2021)	2-4 December 2021	Department of Physics and Nanotechnology and Department of Mechanical Engineering, SRM Institute of Science and Technology, Chennai
38.	3D Porous NiCoP/Ni as an Efficient Approach to Design the Electrode Material for the High-Performance Supercapacitor	Nilimapriyadarsini Swain, and Ananthakumar Ramadoss*	International Conference on Advanced Materials and Mechanical Characterization (ICAMMC-2021)	2-4 December 2021	Department of Physics and Nanotechnology and Department of Mechanical Engineering, SRM Institute of Science and Technology, Chennai
39.	Synthesis and Characterization of Barium Calcium Titanate Nanoparticles Ink and Its Applications	B. Das, S. Mohanty and A. Ramadoss*	International Conference on Advanced Materials and Mechanical Characterization (ICAMMC-2021)	2-4 December 2021	Department of Physics and Nanotechnology and Department of Mechanical Engineering, SRM Institute of

					Science and Technology, Chennai
40.	Fabrication and Characterization of ABS-Graphite Composite Feedstock Filament for FDM of Functional Device	Jyotiprakash Das, Smita Mohanty, S.K Nayak, Ananthakumar Ramadoss*	International Conference on Advanced Materials and Mechanical Characterization (ICAMMC-2021)	2-4 December 2021	Department of Physics and Nanotechnology and Department of Mechanical Engineering, SRM Institute of Science and Technology, Chennai
41.	Fabrication and Characterization of Nylon 12-Graphite Composite: a Novel Step towards 3D Printing of Functional Device	Jyotiprakash Das, Manoj TP, Smita Mohanty, Ananthakumar Ramadoss*	Frontiers in Materials for Technological Applications (FIMTA)	04-06 August 2021	CSIR-IMMT, Bhubaneswar
42.	Flexible PVDF-TrFE/BFO Nanocomposite Films for Piezoelectric Energy Harvesting	Alekhika Tripathy, Balasubramaniam Saravanakumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Online conference on Nano Materials (ICN 2021)	9-11 April 2021	Mahatma Gandhi University Kottayam, Kerala
43.	Fabrication and Electrochemical Characterization of 3D-Iron Nitride Materials for Supercapacitors	Neethu V G, Nilimapriyadarsini Swain, Ankita Mohanty, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Online conference on Nano Materials (ICN 2021)	9-11 April 2021	Mahatma Gandhi University Kottayam, Kerala
44.	Bismuth Oxide Reinforced Nylon-12 Composite Filament for 3D Printing of Multifunctional Semiconducting Devices	Jyotiprakash Das, Manoj TP, Sudheer Kumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Online conference on Nano Materials (ICN 2021)	9-11 April 2021	Mahatma Gandhi University Kottayam, Kerala
45.	Facile and Scalable Fabrication of Nylon – MoO ₃ Composite Filament for Additive Manufacturing	Manoj TP, Jyotiprakash Das, Sudheer Kumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Online conference on Nano Materials (ICN 2021)	9-11 April 2021	Mahatma Gandhi University Kottayam, Kerala

46.	Banana Peel Derived Porous Activated Carbon as Low-Cost Electrode Materials for Supercapacitors	Alekhika Tripathy, Smita Mohanty, Sanjay Kumar Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
47.	Investigation of Electrochemical Properties of Sulphated-NiCo ₂ O ₄ /Ni nanostructures for Supercapacitor Applications	Nilimapriyadarsini Swain, Smita Mohanty, Sanjay Kumar Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
48.	Electropolymerised conducting polymer based smart coatings	T. Siva, R. Ananthakumar , S. Sathiyarayanan	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
49.	Fabrication of Alumina Reinforced Nylon-12 composites for 3D printing of Electronics Devices	Jyotiprakash Das, Manoj TP, Sudheer Kumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
50.	Fabrication of Highly Loaded Nylon – ZnO Composite Filament for Fused Deposition Modeling 3D Printing	Manoj TP, Jyotiprakash Das, Sudheer Kumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
51.	Current-Voltage characteristics of water based graphene ink	Laxmidhar Nayak, Smita Mohanty, Ananthakumar Ramadoss	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
52.	Barium Calcium Titanate based Flexible Piezoelectric Nanogenerator Towards Energy Harvesting Applications	Ayusmin Panda, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha
53.	Fabrication and Electrochemical Characterization of 3D-Manganese Nitride Materials for Supercapacitors	Neethu V G, Nilimapriyadarsini Swain, Ankita Mohanty, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	12 th International Conference on Advancements in Polymeric Materials (APM 2021)	March 9-13, 2021	CIPET: SARP-LARPM, Bhubaneswar, Odisha

54.	Phosphorous Coated Bi-metallic Oxide as an Efficient Way to Design the High-Performance Supercapacitor Electrode Material	Nilimapriyadarsini Swain, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	7th International Conference on Nanoscience and Nanotechnology” (ICONN- 2021)	February 1-3, 2021	SRM, Chennai, Tamilnadu
55.	Development of Electroactive Materials for Energy Conversion and Storage Devices	Ananthakumar Ramadoss*	TEQIP-III Sponsored One-day Seminar and Received the University Foundation Day Research Award – 2020	November 21, 2020	BPUT, Odisha
56.	Recent Advances in Integrated Energy Conversion and Storage Systems	Ananthakumar Ramadoss*	Recent Advances in Chemical Engineering -2020, TEQIP III Sponsored online Faculty Development Programme	December 14-18, 2020	IGIT, Sarang, Odisha
57.	Recent Advancement in Energy Conversion and Storage Systems	Ananthakumar Ramadoss*	National Seminar on “Emerging Frontiers in Modern Science (EFMS-20)”	Jan 09, 2020	Dhanalakshmi Srinivasan College of Arts and Science for Women, Perambalur
58.	Carbon Coated Bi-metallic Oxide as an Efficient and Effective Electrode Material for High-Performance Supercapacitor Application	Nilimapriyadarsini Swain, Balasubramaniam Saravanakumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	4 th International Conference on Soft Materials	December 13-18, 2020	MNIT, Jaipur
59.	Flexible BFO/PVDF Nanocomposite Films for Piezoelectric Energy Harvester	Alekhika Tripathy, Balasubramaniam Saravanakumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	4 th International Conference on Soft Materials	December 13-18, 2020	MNIT, Jaipur
60.	Binder-Free 3D-NiCo-LDH Nanostructure Electrode for Electrochemical Supercapacitors	S. Arun Kumar, B. Saravanakumar, S. Mohanty, Sanjay K Nayak, L. Schmidt-Mende, Ananthakumar Ramadoss*	4 th International Conference on Soft Materials	December 13-18, 2020	MNIT, Jaipur
61.	Fabrication and Characterization of Barium Strontium Titanate Polymeric Foam towards Piezoelectric Application	Ayusmin Panda, S. Mohanty, S. K Nayak, Ananthakumar Ramadoss*	4 th International Conference on Soft Materials	December 13-18, 2020	MNIT, Jaipur

62.	Fabrication of Mixed Metallic MOFs as Hybrid Supercapacitor Electrodes and Study of Role of Various Organic Linkers	A. Mohanty, S. Arun Kumar, S. Z. N. Mohammed, S. Mohanty, S. K. Nayak, L. Schmidt-Mende, and A. Ramadoss*	4 th International Conference on Soft Materials	December 13-18, 2020	MNIT, Jaipur
63.	Flower-like Three-dimensional CoMn-LDH Nanostructure Electrode for Electrochemical Supercapacitors	S. Arun Kumar, B. Saravanakumar, S. Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Virtual Conference on "Frontiers in Manufacturing Technology" (FMT 2020)	October 13-14, 2020	KIIT, Odisha
64.	Multilayer nanoplate architected Bi-metallic Oxide as an Electrode Material for High Performance Supercapacitor Application	Nilimapriyadarsini Swain, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Virtual Conference on "Frontiers in Manufacturing Technology" (FMT 2020)	October 13-14, 2020	KIIT, Odisha
65.	Enhanced Piezoelectric Performances of Flexible PVDF films for Hydroacoustic Applications	Alekhika Tripathy, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Virtual Conference on "Frontiers in Manufacturing Technology" (FMT 2020)	October 13-14, 2020	KIIT, Odisha
66.	Bi-metallic Oxide Based Three-Dimensional Porous Network as an Electrode Material for High Performance Supercapacitor Application	Nilimapriyadarsini Swain, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	Indo-Korea Virtual Conference of Development of Advanced Materials for Future Technologies" (DAMFT-2020)	July 9-10, 2020	VIT, Chennai
67.	Binder-Free 3D-Co ₃ O ₄ Nanostructure Electrode for High Performance Electrochemical Supercapacitors	S. Arun Kumar, B. Saravanakumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	Indo-Korea Virtual Conference of Development of Advanced Materials for Future Technologies" (DAMFT-2020)	July 9-10, 2020	VIT, Chennai
68.	Three-Dimensional Hierarchical Fe ₂ O ₃ Nanoflake/Ni Network as an Electrode Material for High Performance Supercapacitors	Nilimapriyadarsini Swain, Balasubramaniam Saravanakumar, Smita Mohanty, Sanjay Kumar Nayak, Ananthakumar Ramadoss*	"11 th International Conference on Advancement in Polymeric Materials" (APM-2020)	February 13-15, 2020	CIPET, SARP-APDDRL, Bengaluru
69.	Cobalt based Metal Organic Framework (Co-MOF) as an Excellent Electrode Material for Hybrid Supercapacitor	Ankita Mohanty, Sohaila Zaghloul Nabi Mohammed, S. Arun Kumar, Smita Mohanty, Sanjay K.	"11 th International Conference on Advancement in Polymeric Materials" (APM-2020)	February 13-15, 2020	CIPET, SARP-APDDRL, Bengaluru

		Nayak, Ananthakumar Ramadoss*			
70.	N-doped Carbon Coated 3D-Bi ₂ O ₃ as a Negative Electrode for High Performance Supercapacitors	S. Arun Kumar, Balasubramaniam Saravanakumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	“11 th International Conference on Advancement in Polymeric Materials” (APM-2020)	February 13-15, 2020	CIPET, SARP-APDDRL, Bengaluru
71.	Cobalt Manganese Layered Double Hydroxide as Electrode Material for High Performance Supercapattery	Sarvani Sahu, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	“11 th International Conference on Advancement in Polymeric Materials” (APM-2020)	February 13-15, 2020	CIPET, SARP-APDDRL, Bengaluru
72.	Flexible Supercapacitor Based on Titanium Oxynitride Coated Graphite Paper Electrodes for Lightweight and High Performance Devices	Ananthakumar Ramadoss* , Ankita Mohanty, Gobi Saravanan, K. Kirubavathi, K. Selvaraju, Smita Mohanty, Sanjay K. Nayak	“11 th International Conference on Advancement in Polymeric Materials” (APM-2020)	February 13-15, 2020	CIPET, SARP-APDDRL, Bengaluru
73.	Self-Powered System: Energy Conversion and Storage	Ananthakumar Ramadoss*	Electrochemical Energy Applications (EEAW 2019)	19-Jul-19	SRM Institute of Science and Technology, Tamilnadu
74.	Binder-free 3D-Bi ₂ O ₃ Nanostructure Electrode for High Performance Electrochemical Supercapacitors	S. Arun Kumar, A. Mohanty, S. Mohanty, S. K. Nayak, and A. Ramadoss*	64 th DAE Solid State Physics Symposium-2019	18-22 Dec, 2019	IIT-Jodhpur
75.	Flexible and Binder-Free MoO ₃ /Ti Thin Films as an Anode Material for High-Performance Supercapacitors	Ankita Mohanty, Sohaila Zaghoul Nabi Mohammed, Smita Mohanty, Sanjay K Nayak, Lukas Schmidt-Mende and Ananthakumar Ramadoss*	2nd International Conference on Nanoscience and Nanotechnology (ICNAN'19)	4-6 Dec, 2019	VIT, Vellore
76.	Flexible Supercapacitor Based on Vanadium Nitride Coated Graphite Paper Electrodes	Ananthakumar Ramadoss* , Ankita Mohanty, Gobi Saravanan, V. Charles Vincent, K. Selvaraju	International Conference on Advanced Materials Science (ICAMS-2019)	13-14 Aug, 2019	Thanthai Hans Roever College, Perambalur
77.	Preparation and Electrochemical Characterization of Activated Carbon	Piyusha Priyadarshini, Ankita Mohanty, Smita Mohanty, Sanjay K	National Conference on Advanced Materials	21-22 Dec, 2019	NIT Raipur

	Composite Derived from Idli Waste as Electrode for Supercapacitors	Nayak, Ananthakumar Ramadoss*	Applications (NCMA-2019)		
78.	Fabrication of Binder-Free 3D-NiO/Ni Networks as an Electrode Material for High Performance Hybrid Supercapacitors	Nivedita Patra, Nilimapriyadarsini Swain, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	National Conference on Advanced Materials & Applications (NCMA-2019)	21-22 Dec, 2019	NIT Raipur
79.	Three-Dimensional Nanostructured Electrode Architectures for High-Performance Supercapacitors	Ananthakumar Ramadoss* , Smita Mohanty, Sanjay K Nayak	DST-MES-2017: Industry-Academic Conclave on Energy Storage	30-Nov-19	MNIT Jaipur
80.	Augmentation in the photocatalytic performance of polymeric graphitic carbon nitride (g-C ₃ N ₄) by acid treatment using hydrogen peroxide as clean oxidant	A. Mohanty, A. Kumar, D. Jaihindh, A. Kumar, S. Mohanty, S. K. Nayak, Y-P. Fu, and A. Ramadoss*	International Conference on "Advancements in Polymeric Materials" (APM 2019)	January 22-24, 2019	CIPET, Chennai, Tamilnadu
81.	Lightweight and flexible electrodes for supercapacitors	Ananthakumar Ramadoss* , Ki-Yong Yoon, Sohaila Zaghloul Nabi Mohammed, Smita Mohanty, Sanjay K Nayak, Ji-Hyun Jang, Lukas Schmidt-Mende	International Conference on "Advancements in Polymeric Materials" (APM 2019)	January 22-24, 2019	CIPET, Chennai, Tamilnadu
82.	Effect of uniaxial Stretching on Piezoelectric Behaviour of Thermally Compressed PVDF film	Suvrajyoti Mishra*, Lakshmi Unnikrishnan, R. Ananthakumar , Sanjay K Nayak, Smita Mohanty	International Conference on "Advancements in Polymeric Materials" (APM 2019)	January 22-24, 2019	CIPET, Chennai, Tamilnadu
83.	Fabrication and Characterisation of Flexible Polymeric Nanogenerators	Sangram Parida, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	International Conference on "Advancements in Polymeric Materials" (APM 2019)	January 22-24, 2019	CIPET, Chennai, Tamilnadu
84.	Fabrication of three-dimensional MnO ₂ /Ni networks as electrode for high performance supercapattery	Nilimapriyadarsini Swain, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	"5 th International Conference on Nanoscience and Nanotechnology" (ICONN- 2019)	January 28-30, 2019	SRM, Chennai, Tamilnadu
85.	Development of hybrid 3D architecture electrodes for high energy density supercapattery	Ananthakumar Ramadoss* , Smita Mohanty	Second International Meeting on Clean Energy Material	21 -22 February 2019	DST-TMD division, IIT-Delhi, Delhi

86.	Crystal phase study of PVDF-TrFE with added Fe doped ZnO nanoparticles	R. Sahoo, S. Mishra, A. Ramadoss , L. Unnikrishnan, S. Mohanty, S. Mahapatra and S.K. Nayak	63 rd DAE Solid State Symposium	18-22 December 2018	Guru Jambheshwar University of Science and Technology, Hisar, Haryana
87.	Binder-Free Mn ₃ O ₄ Nanostructure Electrode for High Performance Electrochemical Supercapacitors	S. Arun Kumar, Smita Mohanty, Sanjay K Nayak, Ananthakumar Ramadoss*	National Conference on “Advanced Materials for Energy and Environmental Applications” (AMEEA-2018)	December 12-14, 2018	National Institute of Technology Rourkela, Odisha
88.	Characteristic study of adding ZnO nanoparticles in PVDF and PVDF-TrFE films and their voltage responses	R. Sahoo, A. Ramadoss , L. Unnikrishnan, S. Mohanty, S. Mahapatra and S.K. Nayak	Fourth International Symposium on Advances in Sustainable Polymers	08-11 January 2018	Indian Institute of Technology, Guwahati, Assam
89.	Human interactive self-powered smart table for scavenging biomechanical energy	Arunkumar Chandrasekhar, Ananthakumar Ramadoss , Nagamalleswara Rao Alluri, and Sang Jae Kim	4th International Conference on Advanced Electromaterials (ICAE 2017)	November 21-24, 2017	Ramada Plaza, Jeju, Korea