



Dr. M. Ramesh Prabhu
Assistant Professor

Contact

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Academic Qualifications

Degree	Institution	Year	Branch	Class
Ph.D.	Alagappa University	2010	Synthesis and Characterization of solid polymer blend electrolytes based on PEMA	Highly Recommended
M.Sc.	Alagappa University	2006	Physics	First
B.Sc.	Alagappa Govt. Arts College, (Madurai Kamaraj University)	2004	Physics	First

Teaching Experience Contact

Total Teaching Experience : **UG: 05 Months**
PG: 11 Years 11Months

Position	Institution	Duration
Assistant Professor (AL 12)	Alagappa University	May 2021 – Till Date
Assistant Professor (AL 11)	Alagappa University	May 2016 – May 2021
Assistant Professor (AL 10)	Alagappa University	May 2012 - May 2016
Assistant Professor	Chendhuran college of Engineering and Technology	Nov 2010 - May 2011

Research Experience

Total Research Experience : 18 Years

Position	Institution / University	Duration
Assistant Professor	Alagappa University	2012-Till date
Assistant Professor	Chendhuran college of Engineering and Technology	2010-2011
Research Scholar	Alagappa University	2006-2010

Academic and Additional Responsibilities

S.No	Position	University Bodies	Period	
			From	To
1.	Member	NAAC Criterion VI-Sub Committee	2023	Till Date
2.	Deputy Coordinator	ATAL Ranking	2022	Till Date
3.	Department Coordinator	IQAC	2016	Till Date
4.	Department Coordinator	NAAC	2016	Till Date
5.	Treasurer	Alumni Association	2016	Till Date
6.	Department Coordinator	NIRF	2018	2023
7.	Department In-Charge	Remedial Class	2018	2021
8.	Department Coordinator	Ambience committee	2016	2022
9.	Department Coordinator	Discipline committee	2016	2022
10.	Department Coordinator	CSIR-NET/SET	2016	2022

Areas of Research

- **Fuel cells** - Synthesis and Characterization of proton exchange membrane/ polymer electrolyte membrane for PEM fuel cell applications
- **Battery** -Study on the physical and chemical properties of electrolyte and electrode materials for high performance rechargeable Magnesium/ Lithium batteries.
- **Supercapacitor** -Investigation on transition metal dichalcogenides based ternary nanocomposites for high performance supercapacitor application.

ResearchSupervision/Guidance

ProgramofStudy		Completed	Ongoing
Research	PDF	Nil	Nil
	Ph.D.	09	05
	M.Phil	20	-
Project	PG	54	05
	UG/ Others	-	-

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
85	34	5	25	<ol style="list-style-type: none"> 1. AdvancedElectronicsandPhysicsLaboratory–III. 2. MicroprocessorandElectronic Instrumentation.

CumulativeImpactFactor(asperJCR)	:	278.628
h-index	:	20
i-10 index	:	40
TotalCitations	:	1318

Publications

ThesisEvaluated : 09 (Internal)+02 (External)

Viva-voceExaminer : 09 (Internal)+02 (External)

FundedResearchProjects

Ongoing Projects:

S.No	Agency	Period		ProjectTitle	Budget (Rs.in lakhs)
		From	To		
1.	MHRD RUSA 2.0	2022	2024	Investigations on rare earth doped metal oxides for supercapacitor applications	05

CompletedProjects:

S.No	Agency	Period		ProjectTitle	Budget (Rs. in lakhs)
		From	To		
1.	MHRDRUSA2.0	2019	2021	Investigations on rare earth doped metal oxides for supercapacitor applications	05
2.	DST-SERB	2018	2021	Synthesis and characterization of SPEEK perovskite-based proton conducting polymer electrolyte membrane for HT-PEMFC	26.68
3.	UGC	2013	2017	Investigations on nanofiller incorporated PEMA composite electrolyte for lithium batteries	9.68

DistinctiveAchievements / Awards

- **Young Scientist Award (Saraswathy Srinivasan Prize)** -The Academy of Sciences, Chennai- 2022.
- **Promising Researcher Award**– 2022.
- **Listed in the category of Scientists in India working on membrane for fuel cells, India Country Status Report on Hydrogen and Fuel Cells, Department of Science and Technology, Government of India** - 2022
- **Vallal Alagappan Research Recognition Award**-2020
- **RFSMS Fellow**- 2008 to 2010

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized:

Position	Programme	Duration	Institution
Organizing Secretary	ACT NEXT 2023	19 February 2024	Alagappa University
Event Coordinator	Alagappa University Talent Exhibit Show 2023	4 th to 6 th October 2023	Alagappa University
Organizing Secretary	Launch of 5G Services	21 February 2023	Alagappa University
Organizing Secretary	International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019)	16-17 September 2019	Alagappa University
Organizing Secretary	National Conference on Advanced Materials for Sustainable Energy and Sensors (NCAMSES-2019)	20-22 March 2019	Alagappa University
Organizing Secretary	World Standards Day	15 October 2018	Alagappa University
Coordinator	Village Extension Programme	October 2018	Alagappa University
Organizing Secretary	ACT NEXT 2017	18 March 2018	Alagappa University
Organizing Secretary	National seminar on Advanced Materials Research	19 January 2017	Alagappa University
Coordinator	Village Placement Programme	September 2016	Alagappa University

Events Participated

Number of Conferences/Seminars/Workshops:

International

1. World Standards Day, Alagappa University, Karaikudi, 14 October 2020.
2. Two Days International Virtual Conference on Renewable Energy Science and Technology (ICREST-2020), Department of Energy Science, Alagappa University, Karaikudi, 28-29 September 2020.

3. International Virtual Conference on Recent Trends in Energy Materials (INCRTEM – 2020), Department of Physics, Alagappa University, Karaikudi, 9-11 September 2020.
4. 14th International Conference on Ecomaterials (ICEM14), CSIR-National Institute of Interdisciplinary Science and Technology (CSIR-NIIST), Thiruvananthapuram, India, 5-7 February 2020.
5. 2nd International Conference on Mathematical modeling and Computational Methods in Science and Engineering (ICMMCMSE-2020), Alagappa University, Karaikudi, 22-24 January 2020.
6. Fifth International Conference on Polymer Processing and Characterization (ICPPC-2019), Mahatma Gandhi University, Kottayam, Kerala, 11-13 October 2019.
7. International Conference on Advanced Materials for Sustainable Energy and Sensors (INCAMSES-2019), Alagappa University, Karaikudi, 16-17 September 2019.
8. International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS-2019), Sree Sevugan Annamalai College, Devakottai, 6 September 2019.
9. International Conference on “Emerging Paradigms in Diseases Management and Energy Technology” (ICDMET–2019), Dr. Umayal Ramanathan College for Women, Karaikudi, 7-8 August 2019.
10. Indo-German Bilateral Workshop on Membranes for Water and Energy (IGWMWE), CSIR-Central Salt and Marine Chemicals Research Institute, Gujarat, 18-20 February 2019.
11. International Conference on Nanoscience and Nanotechnology (ICONN2019), SRM University, Chennai, 28-30 January 2019.
12. Twelfth International Symposium in Advances in Electrochemical Science and Technology (iSAEST-12), CSIR-CECRI, Chennai, 8-10 January 2019.
13. International Conference on Emerging Trends and Challenges (ICETC-2018), NPR Arts and Science College, Natham, Dindigul, 28 December 2018.
14. International Conference on Green Energy Technologies for Smart Cities (GETSC-2018), SRM University-AP, Amaravati, India, 19-21 December 2018.
15. International Conference on Momentous role on Nanomaterials in Renewable Energy devices (ICMNRE-2018), Alagappa University, Karaikudi, 1-2 March 2018.
16. International symposium on crystallography and advanced materials (ISCAM) 2018, University of Madras, Chennai, 26-27, March 2018.
17. International Conference on Nanoscience and Nanotechnology (ICONN2017), SRM University, Kattankulathur, 9-11 August 2017.
18. Eleventh International Symposium on Advances in Electrochemical Science and Technology (iSAEST-11, 2016), Society for Advancement of Electrochemical Science and Technology (SAEST) with CSIR-CECRI, Chennai, 8-10 December 2016.
19. Asian Consortium on Computational Materials Science (ACCMS), SRM University, SRM Research Institute and Department of Physics and Nanotechnology, Chennai, 22-24 September 2016.
20. International Seminar on Nanoscience and Technology (ISNST-2016), Department of Physics, Mother Teresa Women’s University, Kodaikanal, 20 September 2016.

21. International Conference on Functional Materials (ICFM-2016) Center for Scientific and Applied Research, PSN College of Engineering and Technology, Tirunelveli, 07-10 September 2016.
22. International conference on materials for sustainable future (ICMSF-2016), Department of Chemistry, Sastra University, Thanjavur, 14 & 15 July 2016.
23. International conference on Frontier Areas in Chemical Technologies (FACTs-2016), Department of Industrial Chemistry, Bioelectronics & Biosensors, Nanoscience and Technology, Alagappa University, Karaikudi, 06 & 07 March 2016.
24. International Conference on Frontiers in Nanoscience and Nanotechnology, Sastra University, Thanjavur, 26-28 February 2016.
25. 60th DAE Solid State Physics Symposium, Amity University, Noida, Uttar Pradesh, 21-25 December 2015.
26. International conference on Recent Advances in Materials and Chemical Sciences (ICRAMC S-2015), Department of Chemistry, Gandhigram Rural Institute-Deemed University, Gandhigram, 14-15 December 2015.
27. International Conference on Condensed Matter & Applied Physics (ICC-2015), Government Engineering College, Bikaner, Rajasthan, 30 & 31 October 2015.
28. International conference on Recent Advances in Materials (ICRAM-2015), Jamal Mohamed College (Autonomous), Tiruchirappalli, 16 & 17 October 2015.
29. International Conference on Recent Advances in Nano Science and Technology (RAINSAT-2015), Sathyabama University, Chennai, 8-10 July 2015.
30. 2nd International conference on advanced functional materials (ICAFM 2014), CSIR-National Institute for Interdisciplinary Science & Technology, Thiruvananthapuram, 19-21 February 2014.
31. 5th ESISTC4 conference, Les Diablerets, Switzerland, 7-11 September 2008.
32. Junior EUROMAT, Lausanne, Switzerland, 14-18 July 2008.
33. International conference on Nano science and Technology, IGCAR, Kalpakkam, 27-29 February 2008.
34. International conference on Advancement of Nanoscience and nanotechnology (ICOANN-10), Department of Nano Science and Technology, Alagappa University, Karaikudi, 1-3 March 2010

National

1. 25th National Seminar on Crystal Growth and Applications (XXV NSCGA-2023), Department of Physics, Alagappa University, Karaikudi, 21st-23rd June 2023.
2. Special Lecture on "Future of Energy Storage", Jamal Mohamed College (Autonomous), Tiruchirappalli, February -Invited Talk.
3. Act Next 2021, Alagappa University, Karaikudi, 17th March 2022.
4. Oneday seminar on Challenges and Opportunities of Fuel Cells "Emerging Trends in Fuel

- cells- VidhyaGiri college of Arts and Science, Puduvayal, 18 March 2021 – Invited talk
5. National level webinar on "Emerging Trends in Physics", PG Department of Physics, Government Arts College for Women, Salem, 20 August 2020 – Invited talk.
 6. National Workshop on Advanced Nanomaterials for Sustainable Energy and Sensor Applications (AN-SEA 2020), Alagappa University, Karaikudi, 4-6 March 2020.
 7. National Conference on Advanced Materials for Sustainable Energy and Sensors (NCAMSES -2019), Alagappa University, Karaikudi, 20-22 March 2019.
 8. ACTNext 2017, Alagappa University, Karaikudi, 28 March 2018
 9. Proceeding of the National conference on Futuristic materials (NCFM – 2017) Department of Physics, Alagappa University, Karaikudi, 27-28 March, 2017.
 10. Synthesis and characterization and application of advanced materials (AMR- 2017), Department of Physics, Alagappa University, Karaikudi, 19th January, 2017.
 11. National Conference on Advanced Materials (NCAM-2016), Department of Physics, St. Joseph's College, Tiruchirappalli, 07 October 2016.
 12. 2nd National conference on Nanophotonics (NCNP- 2016), School of Physics, Bharathidasan University, Tiruchirappalli, 18 & 19 March 2016.
 13. National Seminar on Frontier Areas in Chemical Technologies (FACTS-2015), Department of Industrial Chemistry, Alagappa University, Karaikudi, 06 & 07 March 2015.
 14. National Conference on Advanced Materials (NCAM-2015), Department of Physics & Department of Electronics, St. Joseph's College, Tiruchirappalli, 06 February 2015.
 15. 59th DAE Solid State Physics Symposium, VIT University, Vellore, 16-20 December 2014.
 16. Department of Physics & Department of Electronics, St. Joseph's College, Tiruchirappalli, 24 February 2014.
 17. 3rd National Seminar on Technologically Important Crystalline and Amorphous Solids (TICAS- 2014), Department of Physics, Kalasalingam University, Krishnankoil, 28th February & 01st March, 2014.
 18. 8th National conference on Solid State Ionics (8NCSSI), Department of Physics, Dr. Hari Singh Gour University, Sagar, Madhya Pradesh, 7-9 December 2009.
 19. National Conference on Recent Advances in Textile and Electrochemical Sciences (RATES- 2009), Department of Industrial Chemistry, Alagappa University, Karaikudi, 04 & 05 December 2009.
 20. National conference on advanced materials (NCAM- 2009), PSN college of Engineering and Technology, Tirunelveli, 27-29 August 2009.
 21. National conference on Recent Trends in Crystal Growth, Thin Films and Nano-Structured Materials Department of Physics, Aditanar College of Arts & Science, Tiruchendur, India, 5 & 6 August 2009.
 22. National conference on Advances in Nanomaterials, Devices and Technologies, Department of Physics, S. V. Degree college, Kadapa, 11 & 12 July 2009.
 23. National Conference on Nanomaterials for energy conversion and conservation- 09, Department of Physics, Bishop Heber College, Tiruchirappalli, 26 March 2009.

24. National conference on emerging Materials, Devices and Technologies, Sri Venkateswara University, Tirupati, 24 & 25 February 2009.
25. National Conference on Advanced Materials, Devices and Technologies, Sri Venkateswara University, Tirupati, Andhra Pradesh, 20- 22 February 2008.
26. National conference on Emerging materials and Technologies for India-2020, National Institute of Technology, Tiruchirappalli, 24 & 25 January 2008.
27. 7th National Conference on Solid State Ionics, APS University, Rewa, Madhya Pradesh, 1-3 November 2007.
28. National conference on Emerging Trends in Physics, Jayaraj Annapackiam College for Women, Periyakulam, Theni, 30 & 31 August 2007.

Other Training Programs

1. UGC- Sponsored Online Refresher Course in Physical Science (Interdisciplinary) Organized by HRDC Bharathidasan University, Tiruchirappalli. (27.07.2023 – 09.08.2023)
2. Online Refresher Course in Material Sciences: Recombinant Memetics, Organized by Osmania University, Hyderabad, Telangana, (01.02.2021-13.02.2021)
3. Two-Week Online Capacity Building Programme for Faculty Members and Research Scholars, Alagappa University, Karaikudi, Under the sponsorship of UGC STRIDE Component-I Scheme (12-23 June 2020).
4. One-week online FDP on "Higher Education During COVID Times and After: Challenges and Opportunities, The Internal Quality Assurance Cell, Bishop Moore College, Mavelikara, Kerala (23-29 May 2020).
5. Refresher Course (Feb 2016 to Mar 2016)
6. Orientation Programme (Nov 2014 to Dec 2014)

Membership

Professional Bodies

1. Life Member: Association of IPA of India
2. Life Member: Society of MRSI, India
3. Life Member: SAEST, CECRI, Karaikudi
4. Life Member: Indian Society of Atomic and Molecular Physics
5. Life Member: Indian Science and Technology Association-Elavencil
6. Life Member: Bose Science Society, India

Academic Bodies in Other Institutes/Universities

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
2022	Board of Studies- Electronics Government Arts College, Paramakudi	Member
2019	Doctoral Research Committee- Council for Scientific and Industrial – Central Electrochemical Research Institute CSIR-CECRI, Karaikudi	Member
2018-2019	Board of Studies-: Department of Physics, Rathinam College of Arts and Science, Coimbatore.	Subject Expert
2018	Doctoral Research Committee- Periyar EVR College, Tiruchirappalli.	Member
2017	Doctoral Research Committee- St. Joseph's College, Tiruchirappalli.	Member
2016-Till date	Question paper setter – Bharathidasan University, Bharathiar University, Periyar University, Thiruvalluar University, Gandhigram University and Periyar EVR College, Trichy, Government Arts College, Pudukkottai, Madras University.	Question paper Setter

Ph.D. Thesis Guided

- No. of PhD Thesis evaluated : 09 (Internal) + 02 (External)
- No. of PhD Public Viva Voce Examination conducted : 09 (Internal) + 02 (External)

S.No	Name of the Scholar	Title of the Thesis	Year of Completion
1.	M.J. Uma (External)	Synthesis and characterization of pure and doped barium titanium oxide nanoparticles.	2024
2.	R. Gayathri (Reg. No. 1948)	Optimization of sulfonated poly ether sulfone-based nanocomposite membrane by various experimental techniques for proton exchange membrane fuel cell application.	2022
3.	M. Raja Pugalenth (Reg. No. 1964)	Facile enhancement in proton conductivity of SPEEK using functionalized perovskites-synthesis, characterization and	2021

		application towards proton exchange membrane fuel cells.	
4.	S. Ponmani (Reg. No. 1432)	Synthesis and characterization of PVDF-HFP/PVAc based polymer blend electrolytes for magnesium ion batteries.	2020
5.	G. Sowmya (Reg. No. 0983)	Synthesis and characterization of polymer electrolyte membranes for microbial fuel cell application.	2020
6.	K. Raja (Reg. No. 1249)	Study on polymer blend membranes for high temperature proton exchange membrane fuel cell (HTPEM) Application.	2020
7.	P. Martina (Reg. No. 1135)	Preparation and characterization of nanocomposite membranes based on SPEEK-PVDF co HFP for PEMFC application.	2020
8.	K. Selvakumar (Reg. No. 0799)	Development and characterization of non-fluorinated polymer membranes for fuel cell application.	2019
9.	J. Kalaiselvi (Reg. No. 1047)	Development and characterization of single chamber microbial fuel cells for sustainable energy production.	2018
10	E. Mahendiravarman (External)	Synthesis and modification of improved anti biofouling anion exchange membrane for microbial fuel cell applications.	2017
11.	P. Pradeepa (Reg. No. 0735)	Investigations on PEO/PVDF-HFP based blend polymer electrolytes for lithium rechargeable batteries.	2016

List of Research Articles / Recent Publications

S. No	Authors/Title of the paper/Journal	Impact Factor
1.	Z Mohamed Riyas, C Priya, S Ponmani, M Ramesh Prabhu , Exploration of La ₂ O ₃ -CuO nanocomposite as an effective electrode material for asymmetric supercapacitor applications, Journal of Alloys and Compounds (2023), 965, 171350	6.2
2.	S Suganya, M Mujahid Alam, F Kousi, G Ramalingam, M Ramesh Prabhu , S Sudhahar, Facile one-pot synthesis of ternary Ni-Mn-Zn oxide nanocomposites for high-performance hybrid supercapacitors, Journal of Energy Storage (2023), 71, 108176	9.4
3.	Z Mohamed Riyas, M Ramesh Prabhu , K Sankaranarayanan, Hydrothermal synthesis of La ₂ O ₃ -ZnO nanocomposites as electrode material for asymmetric supercapacitor applications, Journal of Materials Science: Materials in Electronics (2023), 34,22, 1612	2.8
4.	M Raja Pugalenth, KonlayuttPunyawudho, M AnbuArasi, AA Shah, M Ramesh Prabhu , M Kouthaman, K Velsankar, R Gayathri, Designing high performance electrospun SPEEK nanofibers composite membrane for PEMFC application, Materials Letters (2023), 339, 134117	3.0
5.	G Maheshwaran, M Ramesh Prabhu , G Ravi, K Sankaranarayanan, S Sudhahar, Probing the energy conversion and storage process in two dimensional layered bismuthene-hexagonal boron nitride nanocomposite electrode and PVA-KOH-BaTiO ₃ piezoelectrolyte nanogenerators, Nano Energy (2023),106, 108060	17.6
6.	S Suganya, G Maheshwaran, M Ramesh Prabhu , P Devendran, M Krishna Kumar, S Sudhahar, Enhanced electrochemical activity of ternary Co-Mn-Zn oxide for the fabrication of hybrid supercapacitor applications, Journal of Energy Storage (2022),56, 106057	9.4
7.	G Maheshwaran, P Pandi, S Suganya, B Arjun Kumar, G Ramalingam, M Ramesh Prabhu , S Sudhahar, Fabrication of self-charging supercapacitor based on two dimensional bismuthene-graphitic carbon nitride nanocomposite powered by dye sensitized solar cells, Journal of Energy Storage(2022), 105900	9.4
8.	MaheshwaranGirirajan, Nivedhitha Bharathi Alagarsamy, Kaliammal Ramachandran, Ramesh Prabhu Manimuthu , DevendranPazhanivel, Krishna Kumar Muthusamy, SudhaharSakkarapani,Two dimensional layered bismuthene nanosheets with ultra-fast charge transfer kinetics as a superior electrode material for high performance asymmetric supercapacitor,Electrochimica Acta,426, 140838,2022	6.6
9.	MaheshwaranGirirajan, Venkatesan Arumugam, SuganyaSubramaniyan, Ramesh Prabhu Manimuthu , SudhaharSakkarapani, Two-Dimensional Layered Bismuthene/Antimonene Nanocomposite as a Potential Electrode Material for the Fabrication of High-Energy Density Hybrid Supercapacitors,Energy & Fuels,36,19, 12299-12309,2022	5.3
10.	Z. Mohamed Riyas, C. Priya, R. Premila, G. Maheshwaran, S. Sudhahar, M. Ramesh Prabhu* , Synergistic effect of La ₂ O ₃ -Nionanocomposite based electrode for electrochemical high-performance asymmetric supercapacitor applications,(2022),Journal of Energy Storage 53,104988, DOI:10.1016/j.est.2022.104988	8.907
11.	Z. Mohamed Riyas, R. Gayathri, M. Ramesh Prabhu* , K. Velshankar, S.	5.532

	Sudhahar, Greensynthesis and biomedical behavior of Mg-doped ZnO nanoparticle using leaf extract of <i>Ficus regiliosa</i> , (2022), <i>Ceramics International</i> , DOI: 10.1016/j.ceramint.2022.05.107	
12.	Maheshwaran G, Nivedhitha Bharathi A, Kaliasammal R, Ramesh Prabhu M , Devendran Pazhanivel, Krishna Kumar M, Sudhahar S*, Two dimensional layered bismuthine nanosheets with ultra-fast charge transfer kinetics as a superior electrode material for high performance asymmetric supercapacitor, <i>Electrochimica Acta</i> 426(2022)140838. https://doi.org/10.1016/j.electacta.2022.140838	6.901
13.	S. M. Fathima Khyrun, Z. Mohamed Riyas, Vaishnavi Raja, Sulthana Sabura Sarbudeen, K. Velsankar, S. Sudhahar, M. Ramesh Prabhu, Mydhili Govindarasu, Muthu Thiruvengadam, Basker Venkidasamy, Chandran Janani, Thevasundari Selvaraj, Environmental and biomedical applications in the synthesis and structural, optical, elemental characterizations of Mg doped ZnO nanoparticles using <i>Coleus aromaticus</i> leaf extract, <i>South African Journal of Botany</i> , https://doi.org/10.1016/j.sajb.2022.02.031	3.111
14.	Gayathri Ravi Kumar, Raja Pugalenthim, Guozhong Cao, and Ramesh Prabhu Manimuthu* , Reinforced Hydroxylated Boron Nitride on Porous Sulfonated Poly(ether sulfone) with Excellent Electrolyte Properties for H ₂ /O ₂ Fuel Cells, (2022), <i>Energy & Fuels</i> (ACS), DOI: 10.1021/acs.energyfuels.2c00604	3.605
15.	S. Thirbika, H. Karthi, R. Premila, M. Ramesh Prabhu*, Investigations on biosynthesized nickel oxide nanoparticles using <i>Cymbopogon citratus</i> leaf extract for antibacterial activity, (2022), <i>Materials Today Proceedings</i> , DOI: 10.1016/j.matpr.2022.05.168	
16.	Gayathri Ravi Kumar, Cao Guozhong, Ramesh Prabhu Manimuthu, Sandwich assembly of sulfonated poly(ether sulfone) with sulfonated multiwalled carbon nanotubes as an efficient architecture for enhanced electrolyte performance in H ₂ /O ₂ fuel cells. <i>Int J Energy Res.</i> 2021;1–18. (2021) DOI: 10.1002/er.7329	4.672
17.	Kanakaraj Selvakumar, Ae Rhan Kim, Manimuthu Ramesh Prabhu, Dong Jin Yoo, Structural and Thermal Analysis and Membrane Characteristics of Phosphoric Acid-doped Polybenzimidazole/Strontium Titanate Composite Membranes for HT-PEMFC Applications, <i>Composites Research</i> , 2021, vol.34, no.6, pp. 373-379. DOI : 10.7234/composres.2021.34.6.373	
18.	G. Maheshwaran, C. Selvi, R. Kaliasammal, M. Ramesh Prabhu, M. Krishnakumar, S. Sudhakar, Exploration of chromium nickel oxide nano composite superior electrode materials for super capacitor Application, <i>Material Letters</i> (2021), DOI: 10.1016/j.matlet.2021.12.011	3.574
19.	Karuppusamy Raja, Mariappan Raja Pugalenthim and Manimuthu Ramesh Prabhu* , Investigation on the sulfonated poly(ether ether ketone)/poly(amide-imide)/barium cerate-based nanocomposite membrane for proton exchange membrane fuel cells, (2021), <i>International Journal of Energy Research</i> , DOI: 10.1002/er.6393	4.67
20.	Raja Pugalenthim, Ramesh Prabhu Manimuthu , Synergistic Effect of Polydopamine-	3.605

	Modified CaZrO ₃ Perovskite and Hydroxylated SPEEK on Acid–Base Cation Exchange Membrane Fuel Cells, (2021), <i>Energy & Fuels</i> 16837-16849	
21.	M. Raja Pugalenthi and M. Ramesh Prabhu* , The Pore filled SPEEK nanofibers matrix combined with ethylene diamine modified SrFeO ₃ nanoneedles for the cation exchange membrane fuel cells, (2021), <i>Journal of the Taiwan Institute of Chemical Engineers</i> , DOI: 10.1016/j.jtice.2021.04.054	5.477
22.	K. Selvakumar, M. Ramesh Prabhu* , Enhancing Proton Conduction of Poly(Benzimidazole) with Sulfonated Titania Nano Composite Membrane for PEM Fuel Cell Applications, (2021), <i>Macromolecular Research</i> , DOI: 10.1007/s132-021-901471.m2.34	2.127
23.	Raja Pugalenthi M, Guozhong Cao, Ramesh Prabhu Manimuthu* , Cross-linked SPEEK-PEG-APTEOS modified CaTiO ₃ perovskites for efficient acid-base cation exchange membrane fuel cell, (2020), <i>Energy & Fuels (ACS)</i> , DOI: 10.1021/acs.energyfuels.0c01933	3.605
24.	R. Gayathri, M. Ramesh Prabhu* , Protonated state and synergistic role of Nd ³⁺ doped barium cerate perovskite for the enhancement of ionic pathways in novel sulfonated polyethersulfone for H ₂ /O ₂ fuel cells, (2020), <i>Soft Matter (RSC)</i> , DOI: 10.1039/d0sm00427h	4.046
25.	Raja Pugalenthi Mariappan, Chaofeng Liu, Guozhong Cao, Ramesh Prabhu Manimuthu* , Tailoring SPEEK/SPVdF-co-HFP/La ₂ Zr ₂ O ₇ Ternary Composite Membrane for Cation Exchange Membrane Fuel Cells, (2020), <i>Industrial & Engineering Chemistry Research (ACS)</i> , https://doi.org/10.1021/acs.iecr.9b06922	4.326
26.	P. Martina, R. Gayathri, M. Raja Pugalenthi, Guozhong Cao, Chaofeng Liu, M. Ramesh Prabhu* , Nano-sulfonated silica incorporated SPEEK / S-PVdF-HFP polymer blend membrane for PEM fuel cell application, (2020), <i>Ionics</i> , https://doi.org/10.1007/s11581-020-03478-9	2.961
27.	G. Sowmya, S. Gowrishankar, M. Ramesh Prabhu* , Influence of phosphotungstic acid in sulfonated poly (ether ether ketone) - poly (amide imide) based proton conductive membranes and its impact on the electrochemical studies of microbial fuel cell application (2020), <i>Ionics</i> , https://doi.org/10.1007/s11581-019-03415-5	2.961
28.	Raja K, Raja Pugalenthi M and Ramesh Prabhu M* , The Effect of incorporation of ferrous titanate nanoparticles in sulfonated poly(ether ether ketone)/poly (amide imide) acid-base polymer for cations exchange membrane fuel cells (2019), <i>Journal of Solid State Electrochemistry</i> , https://doi.org/10.1007/s10008-019-04453-9	2.747
29.	S. Ponmani, K. Selvakumar, M. Ramesh Prabhu* , The Effect of the Geikeilite (MgTiO ₃) nanofiller concentration in PVdF-HFP/ PVAc based polymer blend electrolytes for Magnesium ion battery (2020), <i>Ionics</i> , https://doi.org/10.1007/s11581-019-03341-6	2.961

30.	J.B.ArulJosephHelenTherese,R.Gayathri,K.Selvakumar, M.RameshPrabhu* , P. Sivakumar, Incorporation of sulfonated silica nano particles into polymerblend membrane for PEM fuel cell applications (2019), <i>Materials Research Express</i> ,DOI:10.1088/2053-1591/ab4a3b	1.94
31.	RajaK,RajaPugalenthiMand RameshPrabhu* ,InvestigationonSPEEK/PAI/SrTiO ₃ -basednanocompositemembraneforhigh-temperatureprotonexchange membrane fuel cells, (2019), <i>Ionics</i> , DOI: 10.1007/s11581-019-03100-7	2.961
32.	J.B. Arul Joseph Helen Therese, K Selvakumar, R Gayathri, M Ramesh Prabhu* and P Sivakumar, Insitu polymerization of poly aniline—SPEEK/PMA-based protonexchange membrane for DMFC application (2019), <i>Journal of Thermoplastic CompositeMaterials</i> ,DOI:10.1177/0892705719835293	3.33
33.	R. Sasikumar, K. Selvakumar, MR. Prabhu , Sethuraman, V, Studies on protonconducting polymer electrolytes based on poly(ethylene oxide)/poly(vinyl pyrrolidone)with NH ₄ SCN, (2019), <i>Journal of the Indian Chemical Society</i> ISSN:0019-4522. 113-117	0.284
34.	G.Sowmya, M.RameshPrabhu* ,Fabricationofblendpolymerelectrolytemembra newithpoly(amideimide)-sulfonatedpoly(etheretherketone)formicrobial fuelcell(2018), <i>MaterialsResearchexpress</i> ,Doi.org/10.1088/2053-1591/aaf2b9	1.941
35.	S.Ponmani, M.RameshPrabhu* ,Sulfonatebasedionicliquidincorporatedpolymerele ctrolytesforMagnesiumsecondarybattery(2018), <i>JournalofPolymerplastics- technologyandengineering</i> ,Doi.org/10.1080/03602559.2018.1520259	3.267
36.	S. Ponmani, M. Ramesh Prabhu* , Development and study of solid polymerelectrolytes based on PVdFHFP/PVAc: Mg (ClO ₄) ₂ for Mg ion batteries (2018), <i>Journalof Materials Science: Materials in Electronics</i> , Doi.org/10.1007/s10854-018-9649-0	2.779
37.	S. Ponmani, J. Kalaiselvimary, M.Ramesh Prabhu* , Structural, electrical, andelectrochemical properties of poly(vinylidene fluoride-co- hexaflouropropylene)/poly(vinylacetate)- basedpolymerblendelectrolytesforrechargeable magnesium ion batteries (2018), <i>Journal of Solid State Electrochemistry</i> Doi.org/10.1007/s10008-018-3971-6	2.747
38.	J.Kalaiselvimary, M.R.Prabhu* ,InfluenceofSulfonatedGO/Sulfonatedbiopolymer as polymer electrolyte membrane for Fuel cell application (2018), <i>Journal ofmaterialscience: Materials inElectronics</i> 29(7),5525/5535	2.779
39.	K. Selvakumar, M. Ramesh Prabhu* , Investigation on meta- polybenzimidazoleblendwithsulfonatedPVdF- HFPprotonconductingpolymerelectrolytesforHT- PEMfuelcellapplication(2018), <i>JournalofMaterialsScience:MaterialsinElectronics</i> DOI:10.1007/s10854-018-9658-z	2.779
40.	K.Selvakumar,S.Rajendran, M.RameshPrabhu* ,Influenceofbariumzirconate on SPEEK-based polymer electrolytes for PEM fuel cell applications (2018), <i>Ionics</i> Doi.org/10.1007/s11581-018-2613-4	2.961
41.	J.Kalaiselvimary,N.Sundararajan, M.RameshPrabhu* ,Preparationandcharacterizat	2.961

	ionofChitosanbasednanocompositehybridpolymerelectrolytemembranesforfuelcell applications(2018), <i>Ionics</i> (24)3555–3571https://doi.org/10.1007/s11581-018-2485-7	
42.	KalaiselvimaryJesuraj, RameshPrabhuManimuthu* ,PreparationandCharacterization of Hybrid Chitosan/PEO–Silica Membrane Doped with PhosphotungsticAcidforPEMFuelCellApplication(2018), <i>Polymer-plasticstechnologyandengineering</i> Doi.org/10.1080/03602559.2018.1455862	3.267
43.	J.Kalaiselvimary, M.RameshPrabhu* ,Fabricationsandinvestigationofphysicochemicalandelectrochemicalpropertiesofheteropolyacid-doped sulfonatedChitosan-based polymer electrolyte membranes for fuel cell applications (2018), <i>PolymerBulletin</i> Doi:10.1007-s00289-018-2445-4	2.87
44.	M.Ramesh Prabhu et. al , Preparation and characterization of pseudobrookite(Fe_2TiO_5) Nanocomposite forfuelcellapplications (2018), <i>InternationaljournalofAdvance Engineering and ResearchDevelopment</i>	5.71
45.	M.Ramesh Prabhu et. al , Synthesis and characterization of sulfonated chitosan /PEO based polymer electrolyte membranes for fuel cell applications (2018), <i>Internationaljournalof Advance EngineeringandResearch Development</i>	5.71
46.	M.RameshPrabhu et.al , ConductivityandDielectricbehaviorofPVdF-HFP/PEMA – MagnesiumperchloratesolidpolymerelectrolyteFilmsforMg-ionbatteries(2018), <i>InternationaljournalofAdvanceEngineeringandResearchDevelopment</i>	5.71
47.	M. Ramesh Prabhu et. al , Structural and Thermal properties of functionalized biopolymer basedpolymerelectrolytemembranesforfuelcellapplications(2018), <i>InternationaljournalofAdvance EngineeringandResearchDevelopment</i>	5.71
48.	J.Kalaiselvimary,K.Selvakumar,S.Rajendran,G.Sowmya, M.RameshPrabhu* ,EffectofSurface-ModifiedMontmorilloniteIncorporatedBiopolymerMembranesforPEMFuelCellApplications(2017), <i>PolymerComposites</i> ,https://doi.org/10.1002/pc.24655	3.171
49.	M. Sundararajan*, K.Bama, G.Selvanathan, M.Ramesh Prabhu , Ionic liquid-mediated:Enhancedsurface morphologyofsilver/manganeseoxide/bentonitenanocomposite for improved biological activities (2017), <i>Journal of Molecular Liquids</i> ,https://doi.org/10.1016/j.molliq.2017.11.065	6.633
50.	M.RameshPrabhu et.AI StructuralandmorphologicalstudiesonnanocompositepolymerblendelectrolytesforLi-ionbatteryapplications(2017) <i>InternationalJournalofChemTechResearch</i>	
51.	K. Selvakumar S. Rajendran, M. Ramesh Prabhu* , A Study of influence on sulfonatedTiO ₂ -Poly(Vinylidene fluoride-co-hexafluoropropylene)nanocompositemembranesforPEMFuelcellapplication(2017), <i>AppliedSurfaceScience</i> ,Doi:10.1016/j.apsusc.2016.11.139	7.392
52.	K. SelvaKumar, J. Kalaiselvimary, J.A.Janci Rani, M.R.Prabhu* , DevelopmentofpartialSulfonatedPoly(VinylideneFluoride–	3.850

	HexafluoridePropylene)-Montmorillonite Nano-Composite as Proton Exchange Membrane, World Academy ofScience (2016), Engineering and Technology <i>International Journal ofMaterials andMetallurgicalEngineering</i>	
53.	P.Pradeepa,G.Sowmya, M.RameshPrabhu* ,Influenceofbariumtitanatenanofiller on PEO/PVdF-HFP blend-based polymer electrolyte membrane for Li-batteryapplications (2016), <i>J.Solid State Electrochemistry</i> , Doi: 10.1007/s10008-016-3477-z	2.747
54.	S. Ponmani, N. Anjali priya, P. Pradeepa, M. Ramesh Prabhu* , Effects of TiO ₂ nanofiller incorporated polymer blend electrolytes for lithium battery applications (2016), <i>International Journal for Research in Science Engineering and Technology-Proceedings</i> ,3, 12-14.	
55.	G. Sowmya, M. Ramesh Prabhu* , A study on the effect of STA/APTEOS in thePVA matrix based organic/inorganic composite membranes (2016), <i>International JournalforResearchinScienceEngineering andTechnology- Proceedings</i> , 3,15-18.	
56.	J. Kalaiselviary, K. Selvakumar, M. Ramesh Prabhu* , Structural and complexac impedance studies on proton conducting polymer electrolytes based on Chitosan / H ⁺ - MMT(2016), <i>InternationalJournalforResearchinScienceEngineeringandTechnol ogy-Proceedings</i> ,3, 41-47.	
57.	K. Selvakumar, J. Kalaiselviary, S. Rajendran, M. Ramesh Prabhu* , A NovelProtonConductingPolymerElectrolytesBasedonPoly(vinylidene fluoride-co-hexafluoro propylene) - Ammonium thiocyanate (2016), <i>Polymer-Plastics TechnologyandEngineering</i> , DOI:10.1080/03602559.2016.1185665	3.267
58.	K. Selvakumar, M. Prabhakaran, S. Edwinraj, M. Ramesh Prabhu* , Perchloricacid doped fluorinated polymer membranes for fuel cell applications (2016), <i>MaterialsToday:Proceedings</i> , 3, 1409-1414	0.837
59.	P. Pradeepa, G. Sowmya, S. Edwinraj, G. Fareetha Begum, M. Ramesh Prabhu* ,Influence of Al ₂ O ₃ on the structure and electrochemical properties of PVAc / PMMAbased blend composite polymer electrolytes (2016), <i>Materials Today: Proceedings</i> , 3,2187-2196, https://doi.org/10.1016/j.matpr.2016.04.125 .	0.837
60.	P.Pradeepa,S.Edwinraj,J.Kalaiselviary,G.Sowmya,K.Selvakumar, M. Ramesh Prabhu* , Structural and electrochemical properties of PEMA with theinfluenceofMWCNT/TiO ₂ Filler(2016), <i>AIPConferenceProceedings</i> ,1731,11003 7-1– 110037-3, https://doi.org/10.1063/1.4948058	
61.	J. Kalaiselviary, P. Pradeepa, G. Sowmya, S. Edwinraj, M. Ramesh Prabhu* ,Electrical characterization of proton conducting polymer electrolyte based on bio polymerwithaciddopant(2016), <i>AIPConferenceProceedings</i> ,1728,020419-1– 020419-4. https://doi.org/10.1063/1.4946470 .	
62.	G. Sowmya, P. Pradeepa, J. Kalaiselviary, S. Edwinraj, M. Ramesh Prabhu* ,Dielectric behavior of different nanofillers incorporated in PVC-PMMA	

	based polyelectrolyte membranes (2016), <i>AIP Conference Proceedings</i> , 1728, 020413-1 – 020413-4. https://doi.org/10.1063/1.4946464	
63.	P.Pradeepa,S.Edwinraj,G.Sowmya,J.Kalaiselvimary,K.Selvakumar, M. Ramesh Prabhu* , Composite polymer electrolyte based on PEO/PVdF-HFP withMWCNT for lithium battery applications (2016), <i>AIP Conference Proceedings</i> , 1728,020397-1–020397-4. https://doi.org/10.1063/1.4946448 .	
64.	P. Pradeepa, S. Edwin Raj, J. Kalaiselvimary, G. Sowmya, K. Selvakumar, and M.Ramesh Prabhu* Structural and electrochemical properties of PEMA with influenceofMWCNT/TiO ₂ filler,(2016), <i>AIPConferenceProceedings</i> 1731 ,110037 https://doi.org/10.1063/1.4948058	
65.	S. Edwinraj, P. Pradeepa,K.Selvakumar,S. Mekala, M.RameshPrabhu* ,Electrochemical impedance and dielectric studies on PEO/PVA with NH ₄ Cl based protonconductingpolymerelectrolyte(2016), <i>JournalofChemicalandPharmaceutical Sciences</i> ,9(1),172-174	1.187
66.	P. Pradeepa,S.Edwinraj,G.Sowmya, J.Kalaiselvimary, M. Ramesh Prabhu* , Optimization of hybrid polymer electrolytes with the effect oflithiumsaltconcentrationinPEO/PVdF-HFPblends(2016), <i>MaterialsScienceandEngineeringB</i> , 205, 6–17	3.407
67.	P.Pradeepa, M.RameshPrabhu* ,Enhancementoftheelectrochemicalproperties with the effect of alkali metal systems on PEO/PVdF-HFP complex polymerelectrolytes(2016), <i>Ionics</i> , 22(6), 827-839	2.961
68.	P. Pradeepa, S. Edwin Raj, M. Ramesh Prabhu* , Effects of ceramic filler in Polyvinyl alcohol / Poly ethyl methacrylate based polymer blend electrolytes (2015), <i>ChineseChemicalLetters</i> ,26(9),1191-1196,DOI:10.1016/j.ccllet.2015.05.007	8.455
69.	P. Pradeepa, K. Selvakumar, S. Edwinraj, G. Sowmya, M. Ramesh Prabhu* ,Preparation and characterization of MWCNT nanofiller incorporated polymer compositefor lithium battery applications (2015), <i>AIP Conference Proceedings</i> , 1665, 110011-1 –110011-3.DOI:10.1063/1.4918067	
70.	P.Pradeepa, M.RameshPrabhu* ,Investigationsontheadditionofdifferent plasticizersin(PVdFHFP)/PEMAPolymerblendelectrolytesystem(2015), <i>InternationalJournalofChemTechResearch</i> ,7 (4),2077 –2084.	
71.	K.SelvaKumar, M.RameshPrabhu* ,FTIRand ¹ HNMRStudyonPAN/NH ₄ SCN Based Fuel cell Applications (2014), <i>International Journal of ChemTechResearch</i> ,6(14), 5740-5744.	
72.	M.Ramesh Prabhu , S.Rajendran*, Effects of addition of BaTiO ₃ nano particleson the conductivity of PVdF/PMMA based polymer blend electrolytes (2013), <i>Journal ofEngineeringInventions</i> ,2, 49-53.	3.15
73.	M.RameshPrabhu ,Synthesisandcharacterizationofsolidpolymerblendelectrolytesbased on PEMA(2010)	
74.	S.Rajendran*,V.ShanthiBama, M.RameshPrabhu ,Preparationandcharacterizati	2.961

	on of PVAc-PMMA based solid polymer blend electrolytes (2013), <i>Ionics</i> ,16,283 -287.	
75.	S.Rajendran*, V.ShanthiBama, M.RameshPrabhu , Effect of lithium salt concentration in PVAc/PMMA based gel polymer electrolytes (2010), <i>Ionics</i> , 16, 27-32.	2.961
76.	S.Rajendran*, M.RameshPrabhu , Effect of different plasticizer on structural and electrical properties of PEMA-based polymer electrolytes (2010), <i>Journal of Applied Electrochemistry</i> , 40, 327-332	2.873
77.	S.Rajendran*, M.RameshPrabhu , M.UshaRani (2008), Li ion conduction behavior of hybrid polymer electrolytes based on PEMA, <i>Journal of Applied Polymer Science</i> , 110, 2802-2806.	3.125
78.	S.Rajendran*, M.RameshPrabhu , M.UshaRani, Ionic conduction in Poly(vinyl chloride)/Poly(ethylmethacrylate) based polymer blend electrolytes complexed with different lithium salts (2008), <i>Journal of Power Sources</i> , 180, 880-883.	9.794
79.	S.Rajendran*, M.RameshPrabhu , M.UshaRani, Characterization of PVC/PEMA based polymer blend electrolytes (2008), <i>International Journal of Electrochemical Science</i> , 3, 282-290.	1.765
80.	M.Ramesh Prabhu* , D.Nagajothi (2014), Studies on electrical conductivity and thermal behavior of PVAc / PVDF-HFP/ Al ₂ O ₃ polymer blend electrolytes, <i>Research Teaching Learning letters</i> , 14(1), 19-24	
81.	M.RameshPrabhu* , G.Sowmya, K.Selvakumar (2014), Effect of Different Nanoparticles in PMMA/PVC Based Composite Polymer Electrolytes, <i>Research Teaching Learning letters</i> , 14 (1), 12-18.	
82.	P.Pradeepa, M.Priya, M.Ramesh Prabhu* (2014), Preparation and Characterisation of TiO ₂ Nano filler incorporated Polymer Composite for Li Battery Applications, <i>Research Teaching Learning letters</i> , 14 (1), 6 -11.	
83.	S.Edwinraj, S.Benazir, M. Ramesh Prabhu* (2014), Investigations of Effect of Double Plasticizers in PEMA-PVC Based Gel Polymer Blend Electrolyte, <i>Research Teaching Learning letters</i> , 14 (1), 1-5.	
84.	M.Ramesh Prabhu , S.Rajendran* (2013), Investigations on PVC / PMMA blends with various lithium salts, <i>Indian Journal of Research</i> , 2, 307-309	2.061

Resource persons in various capacities

National Conferences	:	09
International Conferences	:	06
Invited Lectures	:	05

Date : 05.04.2024

Place : Karaikudi



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