

Dr. D. SURESH, M.Sc., Ph.D.,

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Research Areas

- Polymer -Synthesis, Blends, Composites, Nanocomposites and Plastic processing
- Biopolymer, Biobased composites, Composites from renewable resources
- Polyurethane-Formulation(flexible and rigid foams), Processing, Composites, Lightweight composites technology
- H₂Fuel cell
- CO₂ Sequestration
- Nanomaterial

Education

- **Ph.D., Chemistry** (Polymer Science) **Nov-2015**
Anna University, Chennai, India. (CIPET)
- **M.Sc., Applied Chemistry,** **Apr- 2010**
Anna University (CEG Campus), Chennai, India
- **B.Sc., Chemistry,** **Apr -2006**
Periyar Arts College (Govt), Cuddalore, Thiruvalluvar University, Vellore. India

Experience

- **Guest Lecturer- Chemistry** **06/Mar/2023 to Till Date**
Government Arts & Science College, Perumbakkam, Chennai, India
 - **Assistant Manager- R&D** **01/Jan/2016 to 06/Jul/2022**
Harita Fehrer Limited, Chennai, India
 - **Research Fellow- R&D** **08/Dec/2011 to 30/Jun/2015**
Central Institute of Petrochemicals Engineering & Technology (CIPET), Chennai, India
 - **Graduate Trainee - R&D** **07/Dec/2010 to 06/Dec/2011**
Centre for Fuel Cell Technology (CFCT)-(ARCI), Chennai. India
 - **Production Chemist** **02/Sep/2006 to 05/Jul/2008**
GSR Products Ltd, (Nagarjuna Agro Chemicals Ltd), Cuddalore, Tamil Nadu, India
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Projects

- CO₂ sequestration from the electrochemical process in a Fuel cell system (CFCT, Chennai)
 - Preparation of biocomposites&nanocomposites from renewable resources,(CIPET,Chennai)
 - Investigation of biphenyl-based liquid crystalline polymers (Anna University, Chennai)
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List of Publications/Books & Chapters in Books/Conference

Journals: 06

Books & Chapters: 01

Conference: 02

Technical /Skills

- Spectroscopy (UV-Vis, FTIR, NMR),
 - Thermal analysis (DSC, TGA)
 - Physical & Mechanical properties (DMA, TMA, UTM)
 - Microscopy analysis (SEM, TEM)
 - Chromatography (GPC, GC-MS, HPLC/LC-MS)
 - Plastic and polymer technology (Twin Screw Extrude, Two Roll Mill, Injection & Compression Molding)
 - Polyurethane formulation and processing
 - Nanotechnology
 - Quality Control Analysis
 - Design of experiments (DOE)
 - Fuel cell
 - Knowledge in TPM, TQC, 5S
 - VAVE
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Software Skills

- ChemDraw Software (Drawing and Analysis)
 - OriginLab Software (Plotting, Curve Fitting and Analysis)
 - ManiTab (DOE, Analysis of Variance)
 - SEM and TEM Morphological Analysis, ImageJ
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Personal Information

Gender	:Male
Marital Status	: Single
Date of Birth	: 27.06.1986
Nationality	: Indian
Languages Known	: English and Tamil
Address	: No. 138, West Street, Poongunam, Panruti, Cuddalore District, Tamil Nadu, India. Pin-607106

Online Profile: <https://www.linkedin.com/in/dr-suresh-dhandapani-2b9a2240>

1. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, 'Compatibility effect of titanium dioxide nanofiber on reinforced biobased nanocomposites: Thermal, mechanical, and morphology characterization', Journal of Vinyl & Additive Technology, 2015, Vol. 22, pp. 529-538. DOI:10.1002/vnl.21475.
 2. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, 'Surface modification of oil palm fruit bunch and fibre reinforcement effect on bio-based polyester matrix composites: Dynamic, morphological, thermal and mechanical properties', Journal of Elastomers & Plastics, 2015, Vol. 48, pp. 456-479. DOI: 10.1177/0095244315580458.
 3. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, 'Non-isothermal crystallization kinetics and activation energy of bio based poly (trimethylene terephthalate)/poly (butylene adipate-co-terephthalate) polyester blend', Polymer Science Series A, 2015, Vol. 57, pp. 628-634. DOI: 10.1134/S0965545X15050077.
 4. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, 'Investigation of Miscibility, Crystallinity and Phase Morphology of a Novel Bio Based Poly (Trimethylene terephthalate) /Poly (Butylene adipate-co-terephthalate) Blend,- Polymer Science Series A, 2015, Vol. 57, pp. 783-791. DOI: 10.1134/S0965545X15070020.
 5. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, 'Analysis and evaluation of biobased polyester of PTT/PBAT blend: thermal, dynamic mechanical, interfacial bonding and morphological properties', Polymers for Advanced Technologies, 2016, Vol. 27, pp. 938-945. DOI: 10.1002/pat.3752.
 6. Balamurugan Subramanian, Suhana Mohd Said, Asiqur Rahman, Norbani Abdullah, Vijay Srinivasan Murugesan & **Suresh Dhandapani**, 'Main-chain liquid crystalline copolymers: synthesis and comparative study of the mesomorphic properties and non-linear optical properties', Liquid Crystals, 2016, Vol. 43, pp. 1791-1803. DOI: 10.1080/02678292.2016.1209697.
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Books & Chapters in Books

1. A chapter on "Polymer Electrolyte Membrane based Electrochemical Conversion of Carbon dioxide from Aqueous Solutions" authored by **D. Suresh**, K. Ramya, and K. S. Dhathathreyan, in the book on 'Polymeric and Nanostructured Materials', (ed.) A. Thankappan, N. Kalarikkal, S. Thomas and A. Padinjakkara, 2018, Apple Academic Press, Hard-Book ISBN 9781771886444, E-Book ISBN: 9781315147499, Page.No; 307-319.
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Conference

1. **Suresh Dhandapani**, Nayak SK & Smita Mohanty, "Cellulose Nanofibers Process : A Review", International Conference on Advancements in Polymeric Materials, 2012, February 10-12, CIPET, Ahmedabad, India.
 2. **D. Suresh**, M. Vijay Srinivasan, P. Kannan, A. N. Dhinaa and P. K. Palanisamy, "Photo-switching and nonlinear optical behavior of biphenyl based main chain Liquid crystalline polymers", MAM-2012, 6th International symposium on macro- and supramolecular architectures and material, November 2012, Coimbatore, India
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