

7/11/2021

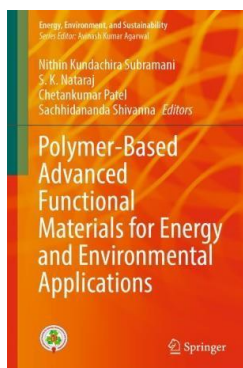
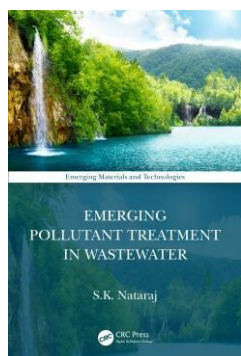
DR.S.K. N A T A R A J, FRSC

S K Nataraj

Professor

CENTRE FOR NANO AND MATERIAL SCIENCES, JAIN
UNIVERSITY

Email: sk.nataraj@jainuniversity.ac.in ; sknata@gmail.com



MY BOOKS

ORCID ID: 0000-0002-1489-8312

Researcher ID: [B-2455-2019](https://orcid.org/0000-0002-1489-8312)

Webpage: <https://cnms.jainuniversity.ac.in/faculty-nataraj-sk.htm>

Google scholar:

<http://scholar.google.co.in/citations?user=DFugHtIAAAAJ&hl=en>

Date of Birth: 4th February 1981

DR.S.K. N A T A R A J, FRSC

Professor and Group Leader
Sustainable Materials and
Processes Lab **Centre for Nano
and Material Sciences Jain**

University Global Campus
Bangalore-562 112, India

Tel (mobile):+918469579774; E-mail: sk.nataraj@jainuniversity.ac.in ;
sknata@gmail.com

PRESENT POSITION

Professor, Centre for Nano and Material Sciences (CNMS)

WORK EXPERIENCE:

Professor	1 Spt'18 to Present	CNMS, JU, India
Associate Professor	Dec'15 to 31 Aug'18	CNMS, JU, Bangalore, India
DST-INSPIRE Faculty Fellow	July'13 to Nov'15	CSIR-CSMCRI, Bhavnagar
University of Cambridge	May'10 to July'13	Cavendish Laboratory, UK
Academia Sinica	June'09 to April'10	IAMS and CCMS, Taiwan
Chonnam National University	May'07 to April'09	AMERI, South Korea

Education

Ph.D Thesis Title: “*Membrane based separation processes for industrial effluent treatment*”

Supervisors: *Prof. K.M. Hosamani and Prof.T.M. Aminabhavi*, Ph.D. USA

Course	Centre/College	University	Duration	Awarded
Ph. D.	Centre of Excellence in Polymer Science	Karnatak University, India.	28-02-05 to 28-02-07	21 st Jan'08
M.Sc.	Centre of Excellence in	Karnatak University,	April'02 to	19 th Jan'05

	Polymer Science	India	June'04	
B.Sc.	P.C. Jabin Science College	Karnatak University, India	June'99 to May'02	10 th Dec'02

GRANTS AND PROJECTS

Project Details	Agency	Role
1. Talent Attraction Program –Community of Madrid, Kingdom of Spain, Institute IMDEA-Water (€298,000) Duration 4 Years (2018-2022), Functional membranes for water treatment applications. Euros 299,000.00 2017-T1/AMB5610	Community of Madrid, Spain	Principal Investigator
2. DST-NANOMISSION PROJECT: Ordered Nanoporous Membranes and Functional Nanomaterials for Water Treatment Applications. Duration 3 Years (2019-2021) FUND Rs.160 LAKHS SR/NM/NT-1073/2016	DST Nanomission, Govt. of India	Principal Investigator
3. DST-INSPIRE FACULTY FELLOW AWARD Novel Nanostructured Electrode for Fuel Cell and Battery Fuel Cell applications (FUND Rs.35.00 LAKH)	DST Govt. of India	Principal Investigator
4. Biomass Derived Heteroatom Doped Graphene and Hard Carbon Composites for Energy Storage Application Funding: 77.00 Lakhs	DST Govt of India	Principal Investigator
5. Separation of Biobutanol via Scalable Approach of Pervaporation: To be a “Viable Biofuel for Future (FUND Rs.35.00 LAKH) CRG/2018/003474	SERB, Govt of India	Co-PI
CO-AUTHROED/CO-PI PROJECTS		
6. EPSRC-UK FOLLOW-ON-FUND, (£120,000.00), UNIVERSITY OF CAMBRIDGE, UK A high performance supercapacitor using novel patented electrode technology.		
7. QATAR FOUNDATION (QNRF)–WORK SITE- UNIVERSITY OF CAMBRIDGE, UK Composite Reverse Osmosis Membranes from Block Copolymers		
□ Supervising: 10-Ph. D, (Ongoing), 2-Mater Projects, 3-Undergraduate Projects		

**BROADER RESEARCH INTERESTS AND EXPERIENCE IN:
Membranes - Separation and Purification Technology, Sustainable and Green Energy Materials for Forward Osmosis, Fuel Cells - Membrane-Electrode-Assemblies [MEAs], Thin Supercapacitor**

<p>LEADERSHIP (Design, Construction and Training)</p>	<ul style="list-style-type: none"> ▪ Developing block copolymer thin-film membranes, establishing lab scale preparation and testing facilities at Cavendish Lab, University of Cambridge (2011-13). ▪ Construction of Membrane Based-Gas Separation Unit at Cavendish Lab, University of Cambridge (May'2010-Nov'2010). ▪ Starting Proton-Exchange Membrane for Fuel Cell research activities (2009-10). ▪ Electrospinning Facility, National Taiwan University (2009-10). ▪ Establishing Membrane testing facilities in Karnatak University (2005-07).
<p>SKILLS</p>	<p>MEMBRANES: Preparation/Development, Testing Including; Performance Evaluation, Fouling Studies, Characterization using Scanning Electron Microscope (SEM) Transmission Electron Microscope (TEM) Atomic Force Microscope (AFM)</p>
	<p>ATR-Fourier Transform Infra-Red Spectroscopy (FTIR) UV-Visible Spectroscopy, Zeta Potential, Porosity Meter, OSMO Inspector, GPC, HPLC, Contact Angle, Testing Cell and Unit Design</p>
<p>COLLABORATIONS</p>	<p>Prof. K-H. Chen, Academia Sinica, Taipei, Taiwan. Prof. C-H. Wang, NTUST, Taipei, Taiwan. Prof. K.S. Yang, Chonnam National University, South Korea. Dr. Kamallesh Prasad, CSIR-CSMCRI, Bhavnagar. Dr. Ramavatar Meena, CAIR-CSMCRI, Bhavnagar.</p>

**INTERNATIONAL CONFERENCE TECHNICAL
SESSION CHAIR/CONVENER**

International Conference on Green Methods for Separation, Purification and Nanomaterials Synthesis -2018 (GMSP&NS-2018) organized by Centre for Nano and Material Sciences, Jain University on 24th & 25th April 2018

at JGI Global Campus, Bengaluru.

Delegates from 5 Different Countries and 14 Different states

within INDIA.Organizing Committee

- Advisory Committee: International Conference on “Advanced Materials Science and Applications (ICAMSA-2020)” Organized by MS Ramaiah Institute of Science and Technology, Bangalore 3rd & 4th September 2020.
- Technical Committee Member: 2nd National Seminar on Frontiers in Materials and Chemical Sciences (NSFMC 2020) 31st August to 4th September 2020.
- Technical Committee Member: International Conference on Innovations in Material Science (AIMS-2020) organized by BMS Institute of Technology and Management on 6th August 2020.
- Advisory Committee: 2nd International Conference on Advanced Materials & Technology (ICMAT-20) on 17th January 2020. 17th January 2020,

CONFERENCE SESSION CHAIR:

- Chaired Session on “Ultrafast Excited State Dynamics of Twisted Aromatics” at 2nd National Seminar on Frontiers in Materials and Chemical Sciences (NSFMC 2020) 31st August to 4th September 2020.
- Chair and Panel Member for session “Water Pollution: Monitoring & Remediation” at International Conference on Innovations in Material Science (AIMS-2020) organized by BMS Institute of Technology and Management on 6th August 2020.
- Chaired the Session on “Smart Materials and Water Treatment” at Second International Conference on Advanced Materials & Technology (ICMAT-20) on 17th January 2020. 17th January 2020,
- International Conference on Green Methods for Separation, Purification and Nanomaterials Synthesis -2018 (GMSP&NS-2018) organized by Centre for Nano and Material Sciences, Jain University on 24th & 25th April 2018
- International Conference on Advanced Materials and Technology, ICMAT-16 held at Mysuru on 26th to 28th May 2016.

INVITED TALKS

1. Delivered Invited Talk on “Exploring Bio-Based Materials for Energy and Environmental Applications” at National Webinar organized by Department of Physics, Davangere University, Davangere, 30th June 2021.

2. Delivered Invited Talk on ““Sustainable Materials and Processes for Future”” at National Webinar organized by Department of Chemistry, Gokhale Centenary College, Ankola, Uttara Kannada, 18th June 2021.
3. Delivered Invited Talk on ““Advances in Sustainable Materials and Processes”” at National Webinar organized by P. C. Jabin Science College, Hubballi, 10th June 2021.
4. Delivered Invited Talk on ““Functional Nanomaterials-based Membranes and Filtration kits for effective treatment of Water”” at Global Academy of Technology Bengaluru, 12th November 2020.
5. Delivered Invited Talk on ““Strategic Multifunctional Materials for Water and Energy Applications”” at Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, 18th September 2020.
6. Delivered Invited Talk on “Chemistry in the Service of Society at Raja Lakhamangouda Science Institute, Belagavi on 25th June 2020.
7. Delivered Invited talk on Intellectual Property Rights and Advances in Functional Nanomaterials for Water Treatment Applications” at One Day State Level Seminar on Intellectual Property Rights (IPR), BVV Sangha’s Basaveshwar Science College, Bagalkot on 24th February 2020.
8. Delivered Invited Talk on “Strategic Advancement in Multifunctional Materials” at BMS Institute of Technology and Management, Bangalore on 11th February 2020.
9. Delivered Invited Talk on “Smart and Functional Nanomaterials for Water Treatment and Energy Applications” at Second International Conference on Advanced Materials & Technology (ICMAT-20) on 17th January 2020.
10. Delivered Invited Talk on “Designing Sustainable Functional Nanomaterials for Water Treatment and Energy Applications at MS Ramaiah Institute of Science and Technology, Bangalore on 14th January 2020.
11. Delivered Invited Talk on “Waste to Wealth: Future Materials for Clean Water and Green Energy” at JSS University of Science and Technology, Bannimantap, Mysuru, Karnataka 570015 on 24th July 2019.
12. Invited Talk on "Sustainable Materials and Processes for Safe Water, Clean Environment and Green Energy" at Quality Improvement Programme in Chemistry held at Christ University, Bangalore on 21st May 2019.
13. Invited Talk on “Interdependence of Science and Technology in Present Scenario” on 2nd March 2018 at Tontadarya College of Engineering, Gadag, India.
14. Invited Talk on “Forward Osmosis: An Emerging Separation and Purification Process. On 18th January 2018 at Department of Chemistry and Physics, Ramaiah Institute of Technology, Bangalore-54, is organizing a

Faculty Development Programme (FDP) on “Recent Advances in Material Science and Application (RAMSA-2018).

15. Invited Talk on “Green Materials for Clean Water and Energy” on 2nd August 2017 at Department of Physics, Ramaiah Institute of Technology, Bangalore-54, is organizing a Faculty Development Programme (FDP) on “Recent Trends in Photonic Techniques” during 31st July – 5th August 2017.
16. Invited Talk on “Sustainable Materials for Clean Water and Green Energy Applications” at *International Conference on Green Chemistry & Nanotechnology-Opportunities and Challenges* (GCNOC-2017) held at St. Aloysius College, Mangalore 27-28th February, 2017.
17. Invited Talk on Forward Osmosis: A Membrane Based Energy Efficient Process for Waste Treatment, Biomacro-molecules enrichment and value addition at *International Conference on Advanced Materials and Technology 2016, ICMAT-16* held at Mysuru on 26th May 2016 to 28th May 2016.
18. Delivered Invited Talk on “Sustainable Materials and Processes” at P. C. Jabin Science College, Hubballi on 8th March 2016.
19. Delivered Invited Talk on “Advanced and Sustainable Materials for Clean Water and Green Energy Applications” at Shri Siddeshwar Government College and PG Study Center, Nargund-582207 on 9th March 2016.
20. Young Researchers Conclave, Indian Institute of Technology Gandhinagar on December 27–28, 2013.
21. Recent Developments in Membrane Science and Technology: Focus on Forward Osmosis on 25th June-2014 RASPCENT-2014: Rajkot, Gujarat, INDIA.
22. Recent Advances in Separation and Purification Science and Technology on 19th August 2014, Forbes Academy, Gokak Falls, Karnataka, INDIA.
23. P.C. Jabin Science College, Karnatak University (2nd Aug’ 2011, Hubli, India)

Research Supervision/Guidance: Research Scholars

Ph.D

	Name of the Student	Course	Joining/Duratio n	Role
1	Ashesh Mahto	Ph.D	August 2014- 2019	Guide
	Title: Designing of Materials Targeting Separation and Energy Storage Applications			
2	A.Kanakraj	Ph.D	June 2016-2020	Guide
	Title: Eco-friendly Synthesis of Functional Materials for Energy and Environmental Applicaions			
3	M.R. Nidhi	Ph.D	August 2017- 2021	Guide
	Title: Synthetic and Biomaterial Interfaces for Membrane Separation Applications			

4	Mahaveer Halakarni	Ph.D	2018	Guide
	Title: Designing High Performance Compatible Membranes and Draw Solutions for Forward Osmosis Process of Industrial Importance			
5	Manohara H. M.	Ph.D	August 2017-2021	Co-Guide
	Title: Design and Synthesis of Functional Materials for Universal Water Purification with Simultaneous Value Addition			
6	Radha N.	Ph.D	August 2017-2021	Co-Guide
	Title: Functional Nanomaterials and Nanocomposites for Electrochemical Energy Storage			
7	Supratim Chakraborty	Ph.D	2018	Co-Guide
	Title: Design & synthesis of functionalized biopolymers and their application in catalysis			
8	Sachin M. Shet	Ph.D	August 2018	Co-Guide
	Title: Designing and Development of Strategies for Protein Packaging with Enhanced Stability for Improved Biocatalysis			
9	Anshu Kumar	AcSIR 800 Project	January 2015	Project Guide
	Title: Collecting Water Sample From Different Part Of Rajasthan And Gujarat for Analysis and Removal of Fluoride, Chromium and Color			
10	Smitha Kamath	Ph.D	June 2019	Guide
	Title: Bio-based Functional Nanomaterials for Water Treatment Applications			
11	Ashok Maraddi	Ph.D	June 2019	Guide
	Title: Biopolymer Derived Functionalized Polyelectrolyte Complexes for Water Treatment			
12	Santosh K.N.	Ph.D	June 2019	Guide
	Title: Design and Development of Controlled Nanoporous Membrane Molecular Separation			
13	Mahadevprasad K.N.	Ph.D	June 2019	Guide

	Title: Engineering the Pore Characteristics in Membranes using Ordered Nanomaterials for Water Treatment Application			
14	Glenita D'Souza	Ph.D	June 2019	Guide
	Title: Ordered Nanoporous Membranes for Water Treatment Application			
15	Juno Rose Attakin			
	Title: Designing Seaweed-based Electrocatalysts for Energy Conversion and Storage Applications			
16	Prahlada	Ph.D	June 2019	Co-guide
	Title: Development of Flexible Miniaturized Li-S Batteries			
17				

M.Sc

	Name of the Student	Course	Joining	Status
1	M.R. Nidhi	M.Sc -RO	Aug-2015	Completed
	Title: Low operating pressure nanofiltration membranes with Functionalized Nanoclay as antifouling and flux promoting agent			
2	Deepika D.	M.Sc -RO	Aug-2016	Completed
	Title: Separation of Protein using Chitosan-Silver Nanocomposite-based UF Membranes			
3	Vibha Sharma	M.Sc -RO	Aug-2016	Completed
	Title: Modified Fe-AL Layered Double Hydroxide as Reusable Micro-cleaner for Robust Removal of Anionic Dyes			
4	Smitha Kamath	M.Sc	May-2018	Completed
	Title: Functionalized Carbon Helix as an Effective Adsorbent for Cationic Dye Removal			
5	Sweedal Annunciata D'souza	M.Sc	May-2018	Completed
	Title:			
6	Smitha	M.Sc	Dec-2017	Completed

	Title: Engineering the Hydrophilicity of Ultrafiltration Membrane to Prevent the Organic Fouling using Nanocomposites			
7	Prahlada	M.Sc	May-2019	Completed
	Title: Deep Eutectic Solvents as an Electrolyte for Rechargeable Zinc ion Batteries			
7	Aleena	M.Sc	June-2019	Completed
	Title: Biopolymer Based Aerogel Membrane for Water Purification			
8	Asish Jolly	M.Sc	June-2019	Completed
	Title: Iron Based Magnetic Nanocomposite Aerogel Membrane for Heavy Metal Ion Removing			
9	Aswathi	M.Sc	June-2019	Completed
	Title: Manganese Based Aerogel Membrane for Water Purification			
10	Keerthana	M.Sc	June-2019	Completed
	Title: Carbon Induced Chitosan-Agar for Water Purification			
11	Shraddha Shetty	M.Sc	June-2019	Completed
	Title: Preparation of Chitosan-Bentonite Membrane over Polysulfone			
12	Vishwanath Reddy	MSc	June-2019	Ongoing
13	Gowri Kakade	MSc	June-2020	Ongoing

SCIENTIFIC AND ACADEMIC ACHIEVEMENTS

Editorial Board

- Advances in Environmental Chemistry
20/07/2013
- The Scientific World Journal
(19/09/2013)
- Journal of Science and Technology
(15/03/2016)
- Journal of Environmentally Friendly Processes(7May 20)

GOOGLE CITATIONS, MAY'21

ALL **4489**
CITATIONS **30**
h- **56**
index
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index

JOURNAL REFEREED

1. *Polymer*, 2. *Carbon*, 3. *Nanoscale*, 4. *International Journal of Hydrogen Energy*, 5. *Environmental Technology*, 6. *Advances in Polymer Technology*, 7. *J. Microscopy and Microanalysis*, 8. *Journal of Hazardous Materials*, 9. *Biotechnology and Bioengineering*, 10. *Material Science and Engineering B*, 11. *Journal of Membrane Science*, 12. *Chemical Engineering Journal*, 13. *Medical Engineering and Physics*, 14. *RSC Advances*, 15. *Carbon Letters*, 16. *Green Chemistry*, 17. *Korean Journal of Chemical Engineering*, 18. *Advanced Material Interfaces* 19. *Fibers and Polymers*, 20. *ACS Sus Chem& Eng*

Fellowships and Grants/Professional Memberships

- **Fellow of Royal Society of Chemistry- Chemical Science: FRSC-Membership No: 515825**
- Talent Attraction Program Fellowship, Institute IMDEA-Water, Spain (2018)
- 4th JU-AWARD for Research Achievements
- DST-INSPIRE Faculty Award (2013-2018)
- Member of American Chemical Society: Membership No: 31122994
- Postdoctoral Research Fellowship: Qatar National Research Fund [QNRF]
- Member: American Physics Society [APS]
- Member: Material Research Society [MRS]
- Grant from Global Partnership Program [GPP]
- Brain Korea Program [BK 21]
- Project Assistant Fellowship 2004–2007 (Funded by UGC, New Delhi, India).
- Member of the Society for Polymer Science, Dharwad Chapter
- AMAOUT II Fellowship, IMDEA Water Institute, Spain

NATURE India Research Highlights

[1] **OUTLOOK-Magazine Research Highlight WEBSITE: 09 AUGUST 2017 “Indian Scientists Turn Sugar Industry Waste Into Next-Gen Battery Material”**: Link:

<https://www.outlookindia.com/website/story/indian-scientists-turn-sugar-industry-waste-into-next-gen-battery-material/300202>

[2] **Nature India Highlight**: Green material for making supercapacitors: Link: <http://www.natureasia.com/en/nindia/article/10.1038/nindia.2017.112>

[3] **Seaweed used to make dye-degrading photocatalyst**:

doi:10.1038/nindia.2016.87 Published online 13 July 2016; Link:

<http://www.natureasia.com/en/nindia/article/10.1038/nindia.2016.87>;

work: Chaudhary, J. P. *et al.* Fabrication of carbon and sulphur-doped nanocomposites with seaweed polymer carrageenan as efficient catalyst for rapid degradation of dye pollutants using solar concentrator. *RSC Adv.* 6, 61716–61724 (2016).

[4] **Green process for purifying protein, DNA**. 29 October 2015; |

doi:10.1038/nindia.2015.144: Nature India link:

<http://www.natureasia.com/en/nindia/article/10.1038/nindia.2015.150>

Work: Mondal,

D. *et al.* Deep eutectic solvents as new class of draw agent to enrich low abundant DNA and proteins using forward osmosis. *RSC Adv.* **5**, 89539–89544 (2015).

[5] **Seaweed polymer helps make ecofriendly membrane.** 16 November 2015; doi:10.1038/nindia.2015.150; Nature India link:

<http://pubs.acs.org/doi/abs/10.1021/acsami.5b08705>; Work:

Chaudhary, J. P. *et*

al. Chitosan-based aerogel membrane for robust oil-in-water emulsion separation. *ACS Appl. Mater. Interfaces* **7**, 24957–24962 (2015)

[6] A. Mahto, A. Kumar, M. Bhatt, J. P. Chaudhary, A. K. Sharma, P. Paul, **S.K. Nataraj**,* and

R. Meena* Solvent-free production of nano-FeS anchored Graphene from *Ulva fasciata*: A Scalable synthesis of super-adsorbent for lead, chromium and dyes, *Journal of Hazardous Materials*, **Journal of Hazardous Materials**, *353*, 5 July 2018, 190-203.

1) <https://www.thehindubusinessline.com/news/science/nanomaterial-drawn-from-seaweed-can-clean-toxic-water/article23456953.ece>

2) <https://paperdabba.com/2018/04/06/nanomaterial-drawn-from-seaweed-can-clean-toxic-water/>

3) <http://www.easternmirrornagaland.com/nanomaterial-drawn-from-seaweed-can-clean-toxic-water/>

4) <http://www.indianews-today.com/news/nanomaterial-drawn-from-seaweed-can-clean-toxic-water>

5) <http://www.thehindu.com/sci-tech/science/csmcri-uses-seaweed-to-remove-lead-chromium-and-dyes-from-wastewater/article23458746.ece?utm>

6) <https://www.researchstash.com/2018/04/06/seaweed-nanoparticles-can-clean-toxic-water/>

7) <http://www.downtoearth.org.in/news/nanomaterial-drawn-from-seaweed-can-clean-toxic-water-60113>

FIRST TIME

1. Forward Osmosis: Granted 2 patents on potential platform technology based on Forward Osmosis process indigenous membranes.
2. Filed a patent on Bio-based Fluoride, Chromium and colour removal nanocomposite in easy to use Tea Bag and filter cake design, which can take up $F > 150$ mg/g.
3. First time we created stock of Aerogels for multi-contaminants removal.
4. First time we adopted natural fibres as an effective media for treating various contaminated water.
5. Patented (filed) process of converting Fresh Seaweed to scalable graphene

oxide and reduced Graphene oxide for Fuel Cell and Energy storage applications.

6. Successfully prepared seaweed based membranes and tested for Oil-Water (wastewater) separation (Patented) and in Direct Methanol Fuel Cells.

Books Authored

1. Title: **Advances in Emerging Pollutant Treatment**

Author: **S. K. Nataraj**

Publisher: **CRC PRESS/TAYLOR & FRANCIS**

2. Title: **Advanced Materials and Methods for Water Treatment**

Author: **S. K. Nataraj**

Publisher: **I K INTERNATIONAL PVT LTD**

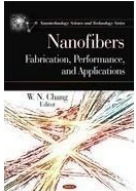
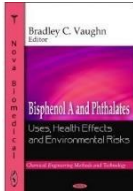
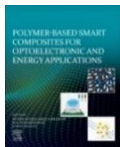
Books Edited

3. Title: **Advanced Polymeric Functional Materials for Energy and Environment**

Author: **K. S. Nithin, S. K. Nataraj, S. Siddaramaih**

Publisher:

SpringerBOOK

SI No	Authors	Book Series	Book Chapter	Publisher
1	S. K. Nataraj, B. H. Kim & K. S. Yang, 	Nanofibers: Fabrication, Performance, and Applications Editors: W. N. Chang,	<i>Chapter-5:</i> Carbon Nano-Fibers and Their Applications: Derived From Electrospinning and Vapor Grown Processes-	2009 Nova Science Publishers, Inc., New York, USA. ISBN 978-1-60741-947-1.
2	S.K. Nataraj & T.M.Aminabhavi 	Bisphenol A and Phthalates: Uses, Health Effects and Environmental Risks Edited By: Bradley C. Vaughn,	<i>Chapter-4:</i> Bisphenol A: Uses, Health Effects and Environmental Risks, In	2009 Nova Science Publishers, Inc, New York, USA. ISBN: 978-1-60741-701-9.
4	Smitha, AK & S.K.Nataraj 	Polymer-Based Advanced Functional Composites for Optoelectronic and Energy Applications	Chapter-2: Conjugated Polymer Based Smart Composites for Optoelectronics and Energy Applications	Elsevier Publishing House
5	Satisha & SKN	Polymer-Based Functional Materials for Biomedical Applications	Synthesis and Characterization of Biomedically Important Hydrogels using High Energy Radiation	IGI Global Publisher

7	Juno, AK & SKN	Aerogel and their use for Energy Savings and Storages	Aerogels and their composites in Energy generation and conversion Devices	Wiley
8	Sachin, DM & SKN	Polymer-Based Functional Materials for Biomedical Applications	Polymers in Medicine: An Overview	IGI Global Publisher
9	Manohara, DM&SKN	Advanced Polymeric Functional Materials for Energy and Environment	Advanced polymer aerogels for energy storage and water purification applications	Springer
10	Nidhi & SKN	Advanced Polymeric Functional Materials for Energy and Environment	Sustainable polymer based membrane for energy and environmental applications	Springer
11	Santosh, MHM & SKN	3D Printing Technology For Water Treatment Applications	Chapter 1: An overview of water pollutants in present scenario	Elsevier publishing house
12	Mahadevpasad & SKN	Smart and Flexible Energy Devices	Chapter: Metal-Organic Frameworks for Flexible Supercapacitors	CRC Press
13	Glenita & SKN	Smart and Flexible Energy Devices	Chapter: Flexible fuel cells based on carbon nanomaterials	CRC Press
14	Radha, SKN, DG	Metal-organic Framework- based Nanomaterials for Energy Conversion and Storage	Metal-organic Framework-based Nanomaterials for Energy	Elsevier Publishing House
15	Rangaswamy, SKN,	Metal-organic Framework- based Nanomaterials for	Metal-organic Framework-based Nanomaterials for	Elsevier Publishing

	DG	Energy Conversion and Storage	Energy	House
16	Prahalad, SKN, DG	Metal-organic Framework- based Nanomaterials for Energy Conversion and Storage	Metal-organic Framework-based Nanomaterials for Energy	Elsevier Publishing House
17	Pooja, SKN, DG	Metal-organic Framework- based Nanomaterials for Energy Conversion and Storage	Metal-organic Framework-based Nanomaterials for Energy	Elsevier Publishing House
18	Hemanth, SKN, DG	Metal-organic Framework- based Nanomaterials for Energy Conversion and Storage	Metal-organic Framework-based Nanomaterials for Energy	Elsevier Publishing House
19	Ashok , SKN	Advanced Functional Membranes: Materials and Applications	Chapter-5: Polymer-Based Membranes	Material Research Forum, LLC, USA
20	Anshu Kumar & SKN	Advanced Polymeric Functional Materials for Energy and Environment	Polymer-based advance materials for sensing of hazardous material applications	Springer

PATENTS

Sl No	Authors	Title	Patent Number/Status
1	S.K. Nataraj and Smitha Kamath	<i>MIL-88 (Fe) integrated sugarcane bagasse- derived universal adsorptive filters for water and wastewater treatment and processes thereof.</i>	Filed
2	S.K. Nataraj, Santosh K.N., Juno Rose	<i>Process for the “Utilization of discarded polymeric membranes to get valuable carbonaceous materials and</i>	Filed

		<i>application thereof</i>	
3	Debasis Ghosh, S.K.Nataraj, Pralhad Yadav	<i>Preparation of laser scribed carbon support for the metal oxide electrodeposition, design of materials, methods and applications thereof.</i>	Filed
4	Debasis Ghosh, S. K.Nataraj, Radha Nagaraj,	<i>Vanadium Oxide/Carbon/Clay Composite Positive Electrode Material, Preparation Method Thereof and Application Thereof in Water-Based Battery</i>	Patent Number CN11070729 9B
5	S. K. Nataraj, D. Mondal, Anita Samage, Manohara H.M. & Mahaveer Halakarni	<i>Design of Metal Salt-based Ternary DES for Rapid Preparation of Metal ion Doped Metal Oxides Preparation and their Applications</i>	Ref No- IN202141033878 Application Number: TEMP/E-1/36928/2021-CHE
6	S. K. Nataraj, D. Mondal, Santosh K.N.& Ashesh Mahto	<i>Polyacrylonitrile based nanofiltration membrane composition and method for preparation thereof</i>	TEMP/E1/17639/2021-CHE 202141016298
7	S. K. Nataraj, D. Mondal, Ashok Maraddi	<i>Method for preparation of polyurethane derived carbon from polyurethane waste</i>	TEMP/E1/17644/2021-CHE 202141016296
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79. S.S. Jawalkar, S.K. Nataraj and T.M. Aminabhavi, Prediction of Blend Compatibility of Poly(vinyl pyrrolidone) and Poly(sulfone) through Molecular Modeling, *Journal of Applied Polymer Science* 108 (2008) 3572-3576. (IF=1.90)
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81. S.K. Nataraj, K. M. Hosamani and T. M. Aminabhavi; Potential application of electro-dialytic pilot plant containing ion-exchange membrane in chromium removal, *Desalination* 217 (2007) 181–190. (IF=6.603)

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83. S.K. Nataraj, K. M. Hosamani and T. M. Aminabhavi; Distillery wastewater treatment by the membrane-based nanofiltration and reverse osmosis processes, *Water Research* 40(2006) 2349-2356. (IF=7.05)

84. S.K. Nataraj, K. M. Hosamani and T. M. Aminabhavi; Electrolytic Removal of Nitrate and Hardness from Simulated Mixtures Using Ion-Exchange membranes, *Journal of Applied Polymer Science*, 99 (2006) 1788–1794. (IF=1.90)

85. M. Sairam, B.V.K. Naidu, S.K. Nataraj, B. Sreedhar and T.M. Aminabhavi; Inorganic-Organic Nanocomposite Membranes for Dehydration of Isopropanol, 1,4-Dioxane and Tetrahydrofuran, *Journal of Membrane Science* 283 (2006) 65–73. (IF=6.578)

Conference Papers

86. NC Horti, MD Kamatagi, **SK Nataraj**, Photoluminescence properties of copper oxide nanoparticles: Effect of solvents, AIP Conference Proceedings 2100 (1), 020048

87. M Sakar, RG Balakrishna, **SK Nataraj**, D Mondal, International Conference on Green Methods for Separation, Purification and Nanomaterials Synthesis (24-25th April 2018), Materials Today: Proceedings 9, 491-498

CONFERENCES AND PRESENTATIONS

1. Manohara H.M., Supratim C., Kanakaraj A., Debasis Ghosh, Nripat Singh, Kamalesh Prasad, D. Kalpana, D. Mondal,* and **S. K. Nataraj*** Presented poster on the topic “Active microcleaner derived from green solvent for water purification and as potential carbocatalyst” in the International conference on Frontiers in materials from basic science to real-time applications (F2DM-2019) held at Jain University, Bangalore, on 13-16th March, 2019. (Awarded Best Poster Presentation)
2. Sachin M. Shet, Manohara H. M., Supratim Chakraborty, Debasis Ghosh, **S. K. Nataraj*** and D. Mondal* presented a poster entitled “Biopolymer based free standing membrane for water purification” in the International conference on Frontiers in materials from basic science to real-time applications (F2DM-2019) held at Jain University, Bangalore, on 13-16th

March, 2019.

3. Radha N, Kanakaraj A, Manohar H. M, Nidhi M. R, D. Mondal, **S. K. Nataraj*** and Debasis Ghosh* presented poster on the topic “Constructing a High Performance Aqueous Zinc Ion Battery cathode with a Organo Vanadyl Hybrid material” in the International conference on Frontiers in materials from basic science to real-time applications (F2DM-2019) held at Jain University, Bangalore, on 13-16th March, 2019. (Awarded Best Oral Presentation)
4. Kanakaraj A., Nidhi M. R., Manohar H. M., Radha., Debasis Ghosh, D. Mondal,* and **S. K. Nataraj*** presented Poster on the topic “Biomass Derived Ultrahigh Surface Area Activated Carbon for Supercapacitor and Water Treatment Applications” in an International conference Frontiers in Materials from Basic Science to Real-time Applications (F2DM-2019), held at Bangalore on 13-16, March 2019.
5. T. Sarath Kumar, Sachin M. Shet, **S.K. Nataraj***, D. Mondal*, Satyapriya Bhandari* presented a poster entitled “Review on optoelectronics derived from biobased quantum dots” in the International conference on Frontiers in materials from basic science to real-time applications (F2DM-2019) held at Jain University, Bangalore, on 13-16th March, 2019.
6. Supratim Chakraborty, Manohara H.M., Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, **S. K. Nataraj*** and D. Mondal* (*corresponding author) presented poster “An ecofriendly approach for DNA metallization in DES; a reusable nano bio catalyst for Suzuki coupling reaction” in the F2DM - 2019, held on 13 - 16th March, in CNMS, Jain University, Bengaluru.
7. Radha N, Kanakaraj A, Manohar H. M, Nidhi M. R, D. Mondal, **S. K. Nataraj*** and Debasis Ghosh* presented poster on the topic “Boosting the Supercapacitive Performance of Polyaniline Using Nickel-iron Oxide as Adjuvant” in KSTA organized conference held at NMKRV college, Bangalore on 1-2nd February 2019.
8. Manohara H.M., Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, **S. K. Nataraj*** and D. Mondal* (*corresponding author) presented Poster on the topic “Active Micro-cleaner derived from Green Solvent for On-Demand Applications” in an KSTA organized conference held at NMKRV college, Bangalore on 1-2nd February 2019.
9. Kanakaraj Aruchamy, Manohar H.M., Radha., Nidhi M. R, Debasis Ghosh, D. Mondal,* and **S. K. Nataraj*** (*corresponding author) presented Poster on the topic “Ultrafast Synthesis of Exfoliated Manganese Oxide in Deep Eutectic

Solvents for Water Purification and Energy Storage” in an International conference KSTA 11th annual conference, held at Bangalore on 1-2, February 2019.

10. Nidhi M.R. A. Kanakaraj, D. Ghosh, D. Mondal* and **S. K. Nataraj*** (*corresponding author) presented poster on the topic of “Antifouling properties of biopolymer-Ag interfaces with polysulfone Ultrafiltration membrane for wastewater Treatment” International conference on Nanoscience and Nanotechnology (ICONN 2019), on 28th to 30th January 2019 at SRM University Chennai.
11. Manohara H.M., Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, **S. K. Nataraj*** and D. Mondal* (*corresponding author) presented Poster on the topic “One-pot Synthesis of Solvothermal Carbon from Eutectic Mixture as High-performance Micro/Nano-cleaner and Efficient Carbocatalyst” in an International conference 10th Bangalore India Nano, held at Bangalore on 5-7th December 2018.
12. Supratim C., Manohara H.M., Kanakaraj A., Debasis Ghosh, **S. K. Nataraj*** and D. Mondal,* (*corresponding author) presented poster “An ecofriendly approach for DNA metallization in DES; a reusable nano bio catalyst for Suzuki coupling reaction” in the 11th Annual KSTA conference, held on 1 - 2nd Feb 2018, in NMRKV college for women, Bengaluru.
13. Kanakaraj Aruchamy, Manohar H.M., Radha., Nidhi M. R, Debasis Ghosh, D. Mondal,* and **S. K. Nataraj*** (*corresponding author) presented Poster on the topic “Green solvent mediated ecofriendly and Ultrafast Synthesis of Exfoliated Manganese Oxide in room temperature for dye removal and supercapacitor” in an International conference 10th Bangalore India Nano, held at Bangalore on 5-7th December 2018.
14. K. Aruchamy, R. N, Manohara H. M, Nidhi M. R, D. Mondal, D. Ghosh* and **S. K. Nataraj*** presented poster on the topic “One-step Green Route Synthesis of Spinel ZnMn₂O₄/MWCNT Nano-composites as a Novel Electrode Material for Supercapacitors” in International Conference on Green methods for, Separation and Purification and Nanomaterial Synthesis (GMSPNS), on 24th & 25th April 2018 at CNMS Jain University, Bangalore.
15. **Kanakaraj Aruchamy**, Meena Bisht, P. Venkatesu, Nidhi M. R, Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented oral presentation on the topic “Green Conversion of Biomass to Functionalized Helical Carbon as a Support for Cytochrome C” in

International Conference on Green methods for, Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at CNMS **Jain University**, Bangalore.

16. **Kanakaraj Aruchamy**, Radha N, Manohara H. M, Nidhi M. R, Dibyendu Mondal, Debasis Ghosh* and Sanna Kotrappanavar Nataraj* presented poster on the topic “One-step Green Route Synthesis of Spinel ZnMn₂O₄/MWCNT Nano-composites as a Novel Electrode Material for Supercapacitors” in International Conference on Green methods for, Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at CNMS **Jain University**, Bangalore.
17. **Nidhi M. R.**, Kanakaraj Aruchamy, Vibha Sharma, D. Deepika, and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Functionalized Nanoclay as Antifouling and Flux Promoter in Nanofiltration and FO membrane” in an International conference **GCNOC**, held at **Mangalore** on 27- 28th February 2017.
18. Manohara H.M., Kanakaraj A., **Nidhi M. R.**, Radha N., Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Bio nanocomposite-based magnetic aerogel membrane for selective separation and removal of emerging pollutants” in an International conference **9th Bangalore India Nano**, held at **Bangalore** on 7- 8th December 2017.
19. Kanakaraj Aruchamy, Meena Bisht, P. Venkatesu, Nidhi M. R, Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Deep Eutectic Solvent Mediated Solvothermal conversion of Biomass to Protein Friendly Spring like Functional carbon nanomaterials” in an International conference **9th Bangalore India Nano**, held at **Bangalore** on 7- 8th December 2017.
20. **Nidhi M.R.**, A. Kanakaraj, Manohar H.M., Radha N, Debasis Ghosh, Dibyendu Mondal, S. K. Nataraj*, presented Poster on the topic “Silver based Nanocomposite coating prevent biofilm formation during ultrafiltration of tannery wastewater”, International conference on Nanomaterials and their Applications, held at **Mysore** on 1st and 2nd March 2018.
21. **Nidhi M.R.**, A. Kanakaraj, Manohar H.M., Radha N., D. Ghosh, D. Mondal, S. K. Nataraj*, Presented poster on the topic of “ Biopolymer Modified Ultrafiltration Membrane for Efficient Tannery Wastewater Treatment”, International Conference on Green methods for Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at CNMS **Jain University**, Bangalore.
22. **Nidhi M.R.** attended National Conference on Jnana Chilume held at **Jain University**, Bangalore 25th March 2017.
23. **Manohara H.M.**, Vibha T. Sharma, Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Bio nanocomposite-based

- magnetic aerogel membrane for selective separation and removal of emerging pollutants” in an International conference **9th Bangalore India Nano**, held at **Bangalore** on 7- 8th December 2017.
24. **Manohara H.M.**, Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, Dibyendu Mondal,* S. K. Nataraj* presented Poster on the topic “ Green Solvent Mediated Facile Preparation of Potential Micro/Nano Cleaner for the Abatement of Emerging Pollutants from Water” in an **International conference on Nanomaterials and their Applications**, held at **Mysore** on 1st and 2nd March 2018.
 25. **Manohara H.M.**, Kanakaraj Aruchamy, Nidhi M. R., Radha N., Debasis Ghosh, Dibyendu Mondal*, S. K. Nataraj* presented Poster on the topic “Solvothermal Carbon Prepared from Green Solvents as High-performance Micro-cleaner for Cationic Pollutants” in an International Conference on Green methods for Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at **CNMS Jain University**, Bangalore.
 26. Manohara H.M., Kanakaraj A., Nidhi M. R., **Radha N.**, Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Bio nanocomposite-based magnetic aerogel membrane for selective separation and removal of emerging pollutants” in an International conference **9th Bangalore India Nano**, held at **Bangalore** on 7- 8th December 2017.
 27. **Radha N.** in an International Conference on Green methods for Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at **CNMS Jain University**, Bangalore.
 28. **Supratim Chakraborty** attended an international conference on Green methods for Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at **CNMS Jain University**, Bangalore.
 29. Manohara H.M., **Vibha T. Sharma**, Kanakaraj A., Nidhi M. R., Radha N., Debasis Ghosh, Dibyendu Mondal,* and Sanna Kotrappanavar Nataraj* presented Poster on the topic “Bio nanocomposite-based magnetic aerogel membrane for selective separation and removal of emerging pollutants” in an International conference **9th Bangalore India Nano**, held at **Bangalore** on 7- 8th December 2017.
 30. **Vibha Sharma**, H.M. Manohara, A. Kanakaraj, M.R. Nidhi, D.Ghosh, D.Mondal, and S. K. Nataraj*, presented Poster on the topic “Reusable magnetic aerogel membranes for selective separation and removal of emerging pollutants” in an National Conference on Recent Advances in Chemistry and Material Sciences (**RACMS-2018**) on 3rd February 2018 at **Jain University**, Bengaluru.
 31. **Vibha Sharma** attended National Conference on Jnana Chilume held at **Jain University**, Bangalore 3rd Feb 2018.

32. **Vibha Sharma**, H.M. Manohara, A. Kanakaraj, M.R. Nidhi, D.Ghosh, D.Mondal, and S. K. Nataraj*, presented Poster on the topic Reusable magnetic aerogel membranes for selective separation and removal of emerging pollutants in an **International conference on Nanomaterials and their Applications**, held at **Mysore** on 1st and 2nd March 2018.
33. **Vibha Sharma**, H.M. Manohara, A. Kanakaraj, M.R. Nidhi, D.Ghosh, D.Mondal, and S. K. Nataraj* presented Poster on the topic “Reusable active micro-cleaner for selective separation and removal of emerging pollutants” in an international conference on Green methods for Separation and Purification and Nanomaterial Synthesis (**GMSPNS**), on 24th & 25th April 2018 at **CNMS Jain University**, Bangalore.
34. A. Kanakaraj, M. Bisht, P. Venkatesu, Nidhi M. R, D. Ghosh, D. Mondal, and S. K. Nataraj a* Conversion of Biomass to Bio-inspired Helical Carbon Composites, as a host for Cytochrome C for Facile Biocatalysis presented at Gujarat Science Congress on 4,5-February 2018, Bhavanagar, India.
35. V. Sharma, H.M. Manohar, A. Kanakaraj, M.R. Nidhi, D.Ghosh, D.Mondal, and S. K. Nataraj*, Reusable magnetic aerogel membranes for selective separation and removal of emerging pollutants, National Conference Recent Advances in Chemistry and Material Sciences (**RACMS-2018**) on 3rd February 2018 at Jain University, Bengaluru.
36. A.Kanakaraj, M. Bisht, P. Venkatesu, Nidhi M.R, D. Ghosh, D. Mondal, and S.K. Nataraj, Deep Eutectic solvent Mediated Solvothermal Conversion of *Partheniumhysterophorous* to Protein Friendly Spring-Like Functional Carbon Nanomaterials, Bengaluru India Nano 9th Edition, at The Lalith Ashoka, on 7-8th December-2017, Bengaluru.
37. H.M. Manohar, V. Sharma, A. Kanakaraj, M.R. Nidhi, D. Ghosh, D. Mondal, and S. K. Nataraj*, Bionanocomposite-based magnetic aerogel membrane for selective separation and removal of emerging pollutants, Bengaluru India Nano 9th Edition, at The Lalith Ashoka, on 7-8th December-2017, Bengaluru.
38. Nidhi M.R., A. Kanakaraj, Vibha Sharma, Deepika and S.K. Nataraj on “Functionalized clay as antifouling and flux promoters in Nanofiltration and forward osmosis applications” at *International Conference on Green Chemistry & Nanotechnology-Opportunities and Challenges* (**GCNOC-2017**) held at St. Aloysius College, Mangalore 27-28th February, 2017.
39. A. Mahto, R. Meena and S.K. Nataraj*, Forward Osmosis: A Membrane Based Energy Efficient Process for Waste Treatment, Biomacromolecules enrichment and value addition at **International Conference on Advanced Materials and Technology 2016, ICMAT-16** held at Mysuru on 26th May 2016 to 28th May 2016.
40. D. Mondal, K. Prasad, S.K. Nataraj,* P. Ghosh, Exploring the potential of green drawing agents for dewatering of feed solutions through energy less forward osmosis process. **RAIC-2015, Recent Advances in Chemical Sciences, 21-24 August, Jaipur, India.** (Received: **BEST**

PRESENTATION AWARD

41. A. Mahto, D. Mondal, K. Prasad and S.K. Nataraj, In-situ Synthesis of Magnetic Nanoparticles and their Use as Sustainable Draw Solutions for Forward Osmosis Applications, *CRSI, 7-9th February 2015, National Chemical Laboratory, PUNE, India.*
42. Jai Prakash Chaudhary, Sanna Kotrappanvar Nataraj*, Ramavatar Meena*, Bio-Based Foam Membranes for Sustainable Oil-Water Separation, *CRSI, 7-9th February 2015, National Chemical Laboratory, PUNE, India.*
43. Ashesh Mahto, D. Mondal, K. Prasad and S.K. Nataraj Sustainable and Efficient Draw Solution for Forward Osmosis Applications, *The 5th Asia-Oceania Conference on Green and Sustainable Chemistry, 15-17 January 2015, India Habitat Centre, New Delhi, India*
44. Q. Song, S.K. Nataraj, P. Zavala-Rivera, S.A. Al-Muhtaseb, E. Sivaniah, High Performance Gas Separation Membrane from a Polymer of Intrinsic Microporosity by Photochemical Surface Modification, **2012 AIChE Annual Meeting held at Pittsburgh Convention Center, Pittsburgh, PA, USA on October 28 - November 2, 2012.**
45. P. Zavala-Rivera, E. Sivaniah, S.K. Nataraj, Collective Osmotic Shock (COS) a New Way to Create Polymeric Templates for Inorganic Nanomaterials, **2012 AIChE Annual Meeting held at Pittsburgh Convention Center, Pittsburgh, PA, USA on October 28 - November 2, 2012.**
46. S.K. Nataraj, Paul Zavala-Rivera, Qilei Song, S.A. Al-Muhtaseb, E. Sivaniah. High Performance Ordered Nanoporous Membranes from Block Copolymers; **Euromembrane-2012 held on 23- 27th September 2012, London, United Kingdom.**
47. H-C. Hsu, C-H. Wang, S.K. Nataraj, H-C. Huang, S-T. Chang, H-Y. Du, Li-Chyong Chen, Kuei-Hsien Chen, High power supercapacitor using CNT directly grown polyacrylonitrile-based CNF paper, International Conference on New Diamond and New Carbons, [NDNC-2011], held on May 16-20, 2011, **Sendai, JAPAN.**
48. Nataraj S.K., M. Byun, Paul Zaval-Rivera, Kevin Channon, S.A. Al-Muhtaseb, E. Sivaniah. Ordered ferrofluidic assemblies in polymer film formed by magnetically induced polymer- solvent phase separation, 2011 March Meeting of the **American Physical Society (APS) March 21-25, 2011, Dallas, Texas, USA.**
49. Paul Zaval-Rivera, Kevin Channon, Vincent Nyugen, E. Sivaniah, Nataraj S.K., S.A. Al-Muhtaseb. Interconnected and nano-perforated lamellar sheets of metal oxides produced using novel block copolymer templates, 2011 March Meeting of the **American Physical Society (APS) March 21-25, 2011, Dallas, Texas, USA.**
50. Nataraj S.K., Paul Zaval-Rivera, Kevin Channon, S.A. Al-Muhtaseb, E. Sivaniah. From blood dialysis to desalination: A one-size fits all block

- copolymer based membrane system, 2011 March Meeting of the **American Physical Society (APS) March 21-25, 2011**, Dallas, Texas, USA.
51. E. Sivaniah, Paul Zaval-Rivera, Kevin Channon, S.K. Nataraj, S.A. Al-Muhtaseb, Bicontinuous nanoporous block copolymer films prepared from a spherical-phase architecture, 2011 March Meeting of the **American Physical Society (APS) March 21-25, 2011**, Dallas, Texas, USA.
 52. Paul Zavala-Rivera, Kevin Channon, E. Sivaniah, S.K. Nataraj, S.A. Al-Muhtaseb, Osmotica **MRS Fall Meeting-2010**, Boston, USA.
 53. S.K. Nataraj, K.S. Yang; Nanocomposite-based Carbon Nanofibers, International Carbon Festival: Carbon-2009, France.
 54. S.K. Nataraj, K.S. Yang; Korean Carbon Society Conference-Spring-2009; Inha University, Incheon, South Korea, May 6-7, 2009.
 55. S.K. Nataraj, B.H. Kim and K. S. Yang, The 2nd Bio-Energy Symposium: Cellulosic Bio-Energy: Bio- Energy Research Institute, College of Agriculture and Life Sciences, Chonnam National University, South Korea: March, 27th 2009
 56. D.H. Lee, B.H. Kim, J.H. Yun, S.K. Nataraj, K.S. Yang; The 4th Workshop on Electro-Beam Applications (WEBA-2009) KAIST, Korea on 13-03-2009.
 57. S.K. Nataraj, K.S. Yang; 3rd International Carbon Festival, 4th Asian Carbon Forum meeting and Fall Korean Carbon Society Meeting, Jeonju, 11th -14th Nov. 2008.
 58. K.S. Yang, B.H. Kim, W.J. Lee, S.K. Nataraj; 3rd International Carbon Festival, 4th Asian Carbon Forum meeting and Fall Korean Carbon Society Meeting, Jeonju, 11th -14th Nov. 2008.
 59. D.H. Lee, B.H. Kim, S.K. Nataraj, K.S. Yang; 3rd International Carbon Festival, 4th Asian Carbon Forum meeting and Fall Korean Carbon Society Meeting, Jeonju, 11th -14th Nov. 2008.
 60. S.K. Nataraj, K.S. Yang; International Conference on Nano-Science and Nano-technology: 2008; In-situ preparation of magnetic iron oxide nanoparticles in Polyacrylonitrile nanofibers, Chonnam National University, Gwangju, South Korea.
 61. S.K. Nataraj, K.S. Yang; International Carbon Conference-2008 (NAGONA-2008) at Nagona, Japan 10-12 June' 2008.
 62. S.K. Nataraj, B.H. Kim, B.T.N. Ngoc, J. Ferraris, T.M. Aminabhavi, K. S. Yang; Conference of Korean Carbon Society, Electrochemical Performance of Free Standing Porous Carbon Nanofibers of Polyacrylonitrile Containing Iron Oxide, Deajon, South Korea, 10-11 April, 2008.
 63. S.K. Nataraj, B.H. Kim, D.H. Lee, J.H. Yun, T.M. Aminabhavi, K. S. Yang; Conference of Korean Carbon Society, Effect of Added Nickel Nitrate on the Morphology and Physico-chemical Properties of Polyacrylonitrile-Based Carbon Nanofibers, Deajon, South Korea, 10-11 April, 2008.

64. S.K. Nataraj, B.H. Kim, B.T.N. Ngoc, J. Ferraris, T.M. Aminabhavi, K. S. Yang, Iron oxide induced Polyacrylonitrile carbon nanofibers mats. ICAM-2008: International Conference on Advanced Materials, Kottayam, Kerala, India, 18 - 21 February 2008.
65. K.S. Yang and S.K. Nataraj; ICAM-2008: PAN and PITCH-based Carbon nanofibers in energy storage devices. International Conference on Advanced Materials, Kottayam, Kerala, India, 18 - 21 February 2008.
66. S.K. Nataraj, and K.S. Yang; International Conference on Carbon Nanotubes: 2007 Nano Forum on CNT-TCF & TFT, Platform of Jeollabuk-do Provincial Government, Jeonju, Korea, Oct 31-Nov 3, 2007.
67. S.K. Nataraj, T.B.N. Nogu, B.H. Kim and K.S. Yang, Conference of Korean Carbon Society, PAN- Based Highly Porous Carbon Nanofibers Induced by Fe, held at Yonsei University, Seoul, South Korea, 22-23 Nov, 2007.
68. S.K. Nataraj, S. Sridhar, I. N. Shaikh, D. S. Reddy, T. M. Aminabhavi; An efficient membrane- based MF/ED hybrid process for the treatment of paper industry wastewater; Presented at NCL, Pune on Dec. 17-20, **2006** in *Macro-2006*; NCL, Pune, India.
69. S.K. Nataraj, S. Roy and T.M. Aminabhavi, Preparation, Modification and Characterization of Ceramic Membrane Modules for Water Treatment; Presented at *Macro-2006* Presented at NCL, Pune on Dec. 17-20, **2006** in *Macro-2006*, India.

Teaching/Research Supervision experience

1. Course (20 hour): Battery-Primary, Battery-Secondary and Fuel cells at CNMS, Jain University
2. Course (20 hour): Cyclic Voltammetry, X-ray Spectroscopy and Electron Spectroscopy at CNMS Jain University
3. AcSIR Course Work (10 hour): Advanced Separation and Purification Techniques at CSIR-CSMCRI, Bhavnagar
4. Course (10 hour): Membrane Separation Processes, Polymer Rheology, Plastic Processing and Engineering at Centre of Excellence in Polymer Science, Karnatak University.
5. Supervised 3 BE Projects and 12 M.Sc. Projects

Professional Courses Attended

1. Entrepreneurial Training: Centre for Entrepreneurial Learning, Judge Business School, University of Cambridge. UK.
2. Induction Course: Health, Chemical Safety and Environment
3. Course on Nano-Hazard and Health Safety
4. Undergone training in CIPET-Hyderabad on "Plastic Processing and Engineering"

PERSONAL DETAILS

Full Name	Sanna Kotrappanavar Nataraj
Date of Birth	4 th February, 1981
Marital Status	Married
Nationality	Indian
Languages Known	English, Kannada, Hindi and Telugu

I hereby declare that the above furnished is true to my knowledge.

(S.K. Nataraj)