Welcome to Research Group of Prof. A. Ajayaghosh @ CSIR-NIIST

"Our research group focus in the interdisciplinary areas of organic photoresponsive materials, supramolecular chemistry, molecular self-assembly, organogels and molecular probes and sensors. We have developed a new class of functional soft materials namely pi-gels having potential applications in energy harvesting, sensing and security materials. We have developed several fluorescent probes for sensing and imaging of biological specimen."

J C Bose Fellow, CSIR-NIIST
FASc.; FNASc. FNA; FTWAS
Email: ajayaghosh@niist.res.in
ajayaghosh62@gmail.com
Tel: +91 471 249 0324/3599
Fax: +91 471 249 1712

Major Honors

Shanti Swarup Bhatnagar Prize
Infosys Science Prize
TWAS Prize for Chemistry
DAE Outstanding Researcher Award
Khwarizmi International Award
J. C. Bose National Fellowship
Web of Science-India
Research Excellence-Citation Award

Academy Fellowships

Indian Academy of Sciences, Bangalore
National Academy of Sciences, Allahabad
Indian National Science Academy, New Delhi
Kerala Academy of Sciences
Royal Society of Chemistry, London
The world Academy of Science

Research Lab

Room No. 102, C. V. Raman Block
Photosciences and Photonics Section, CSTD,
CSIR-NIIST, Industrial Estate Post,
Thiruvananthapuram 695019

Broad Areas of Interest

- **Functional Organic Materials:** (Organic dyes, Light emitting materials, Molecular sensors and Molecular probes)
- **Supramolecular Chemistry:** (Molecular self-assembly, Organogels, Nanostructures)
- **Macromolecular Chemistry:** (Polymer-based sensors, Conducting polymers, Low band gap polymers, Light emitting polymers)

Education

1989 PhD (Organic Chemistry) Calicut University

Professional Experience

2015 – 2022 Director CSIR-NIIST, Thiruvananthapuram
2011-17 Dean Chemical Science AcSIR
2009- 11 Head of the Department, CSTD, CSIR-NIIST
2002-08 Adjunct Professor, IIT Kanpur
1988 - to-date 31 years of research experience as scientist at various levels (CSIR-NIIST Thiruvananthapuram)

Research Supervision

PhD awarded: 30; PhD ongoing : 06

Publications

Link to Google Scholar profile
https://scholar.google.co.in/citations?user=bYdujAwAAAAJ&hl=en

Link to Research Gate profile
https://www.researchgate.net/profile/Ayyappanpillai_Ajayaghosh

Positions open for PhD Program

Interested students can apply through AcSIR PhD Program

Dr. Sujatha Devi P.
Chief Scientist, Professor AcSIR,
CSTD psujathadevi@niist.res.in
0471-2515275(Off) +91-8777209701

B.Sc. (1983, Chemistry), University of Kerala

M.Sc. (1985, Chemistry), M. G. University, Kottayam (First Rank)

Ph.D. (Inorganic Chemistry, 1991), Indian Institute of Science, Bangalore

Materials Chemistry, Nanotechnology and Applications

- Processing and structure property correlations in oxides
- Nanomaterials for sensor development: Gas sensors such as hydrogen, butane, SO_2, pesticide and organic pollutants in water and various biomarkers for disease diagnostics.
- Materials development and fabrication for applications in fuel cell and dye sensitized solar cells.
- Emerging application of fluorescent nanomaterials in DNA sensing
- Nanomaterials for drug delivery and photocatalytic applications
- Application of nanomaterials in water quality assessment and monitoring

https://www.niist.res.in/niist/drsujatha-devi-p-0

Welcome to Research Group of
Dr. K. V. Radhakrishnan @ CSIR-NIIST

Interested Area of Research: Tapping the potential of bioactive molecules from plants from Western Ghats, Development of novel synthetic methodologies, synthetic carbohydrate chemistry, Transition metal catalyzed organic transformations towards pharmaceutically important molecules. In addition to the above, he is an active member in a number of collaborative projects "

Chief Scientist & Head, CSTD & AcSIR Professor
Office: Room No. 112, Sir C. V. Raman Block , Organic Chemistry Section
CSTD, CSIR-NIIST, Industrial Estate, Pappanamcode, Thiruvananthapuram-19

Email: radhu2005@gmail.com
radhu@niist.res.in
Contact: 0471-2515420, 9446555258
Fax: 91-471-2491712
CSIR- NIIST Profile Link:
http://niist.irins.org/profile/64930

Education

MSc. Chemistry, Christ College, Irinjalakuda, Kerala, India (1992) (University of Calicut).
Master of Human Resource Management (MHRM) from University of Kerala (2016)
Ph.D. in synthetic organic chemistry from University of Kerala under the supervision of Dr. G. Vijay Nair, CSIR-NIIST, Trivandrum

Research Experience

- **June 2002 to date**: Scientist, Organic Chemistry section, National Institute of Interdisciplinary Science and Technology-NIIST(formerly Regional Research Laboratory) (CSIR), Trivandrum, Kerala, INDIA
- **November 2000 to May 2002**: Post-Doctoral Fellow, NPG Research Institute, 3540, 840 Main Campus Drive, Raleigh, NC-27606, USA. ***Research Director: Prof. (Dr.). Bert Fraser-Reid.***
- **May 2000-October 2000**: Post-Doctoral Fellow, Molecumetics Institute, 2023 120th Avenue, Bellevue WA 98005-2199, USA.***Project Director: Prof. (Dr.). Michael Kahn***
- **January 2000-April 2000**: Post-Doctoral Research Associate, Organic Chemistry Division, Regional Research laboratory(CSIR), Trivandrum, Kerala, INDIA ***Supervisor: Dr. G. Vijay Nair***
- **November 1998 to October 1999**: Post-Doctoral Fellow, Department of Chemistry, Tohoku University, Sendai, JAPAN. ***Supervisor: Prof. Yoshinori Yamamoto***
- **May 1993 to November 1998**: Research Fellow and research Associate, Regional Research Laboratory (CSIR), Trivandrum-19, Kerala, INDIA. ***Research Director: Dr. Vijay Nair***
- **December 1991 to April 1993**: research Assistant, Department of Chemistry, Christ College, Irinjalakuda, Kerala, INDIA.

Awards & Fellowships

- *Chemical Research Society of India (CRSI) Bronze medal for the year 2016*
- *Gold medalist in Master of Human Resource Management (MHRM) from University of Kerala in 2016*
- *Excellent rating for DST sponsored project in the area of palladium catalysis*
- *Excellent rating for Indo-French collaborative project with Université de Reims Champagne-Ardenne, Reims, France*
- *Featured in the "TCI-India League of Extra Ordinary Chemists"*

Broad Area Of Interest

- ***Phytochemistry***
- ***Synthetic carbohydrate chemistry***
- ***Homogeneous catalysis using transition metals***
- ***Development of novel synthetic methodolgies***
- ***Medicinal Chemistry: Drug development for Cancer, Diabetes, and neurodegenerative (CNS)disorders***

AcSIR Course Teaching

CHE-NIIST-1-4101 Research Methodology & Quantitative methods
CHE-NIIST-2-4102 Advanced Organic Chemistry
CHE-NIIST-3-4103 Carbohydrate chemistry
CHE-NIIST-3-4121 Transition Metal Catalyzed organic synthesis & Application in total synthesis of natural products, heterocycles and pharmaceutical intermediates

Thesis Supervision and Guidance *(Interdisciplinary with students in Chemistry and Biology)*

Ph.Ds/MSc/MD/Summer interns completed
Twenty six (26) students completed Ph.D.
One (1) student completed M. Tech
114 students completed their MSc project/MD Ayurveda/summer intern

Currently supervising
Guide: Six(6) ongoing PhD Students
Co-Guide: Four(4)Ph.D. Students
Four (4) project fellow
One (1) Research Associate

Publications

Papers published/in peer-reviewed international/national journals 113
Book Chapters: 2
Patent: One US patent

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Vijayakumar C. @ CSIR-NIIST

"Research in our group is mainly focused on developing organic molecules and hybrid perovskites for various opto-electronic applications. We are also interested in supramolecular self-assembly, stimuli-responsive smart materials and development of hybrid thermoelectric materials."

Principal Scientist & AcSIR Associate Professor Office: Lab 208, Sir C. V. Raman BlockPhotosciences and Photonics Section CSTD, CSIR-NIIST, Industrial Estate Thiruvananthapuram
Email: cvijayakumar@niist.res.in
cvk121@gmail.com
Mobile No: +919447 835 815
Google Scholar Link:
https://scholar.google.co.in/citations?user=GLTYrp0AAAAJ&hl=en

Education

2000-2002 M. Sc. (Chemistry)
Calicut University

Professional Information

2002 – 2008 Ph. D. (Chemistry)
University of Kerala (CSIR-NIIST, Trivandrum)

2008-2010 Postdoctoral Fellow
National Institute for Material Science (NIMS), Japan

2011-2012 Assistant Professor
Osaka University, Japan

2013-2018 Scientist, Ramanujan Fellow & AcSIR Assistant Professor
Photosciences and Photonics section, CSTD
CSIR-NIIST, Thiruvananthapuram, India

2019- Scientist & AcSIR Assistant Professor
Photosciences and Photonics section, CSTD
CSIR-NIIST, Thiruvananthapuram, India

Past and Present Group Members

Research Scholars

Mr. Naeem K. C.
Ms. Tanwistha Ghosh
Ms. Jayanthy S. Panicker
Mr. Chinnadurai M.
Mr. John Paul K. P.
Ms. Susanna Poulose

Project Assistants

Ms. Neethi Raveendran
Ms. P. Nayana Krishna
Mr. Abhijith S. Kumar
Mr. Maneesh Mohan

Research Associate

Dr. Suresh Kumar G. S.

Broad Areas of Interest

- Stimuli Responsive Smart Materials
- Organic Photovoltaic and Field Effect Transistor Devices
- Hybrid Perovskite Materials
- Supramolecular Chemistry
- Hybrid Thermoelectric Materials

Recent Publications

Zero-Dimensional Lead-Free Hybrid Perovskite-like Material with a Quantum-Well Structure
JK Pious, A Katre, C Muthu, S Chakraborty, S Krishna, VC Nair, *Chem. Mater.* 2019, 31, 6, 1941-1945.

Photoinduced Photoluminescence Enhancement in Self-assembled Clusters of Formamidinium Lead Bromide Perovskite Nanocrystals
S Ghimire, VC Nair, C Muthu, K Yuyama, M Vacha, V Biju, *Nanoscale* 2019, 11, 9335-9340.

Protein-Assisted Supramolecular Control over Fluorescence Resonance Energy Transfer in Aqueous Medium
VC Nair, KK Kartha, B Balan, S Poulose, M Takeuchi
J. Phys. Chem. C 2019, 123, 20, 13141-13146.

AcSIR Course Teaching

CHE-NIIST-3-4104 Supramolecular Chemistry

Open Position for Ph.D. Program

Interested students can apply through AcSIR Ph.D. Program

Research Group of Dr. Joshy Joseph @ CSIR-NIIST

Major Research Focus of our group are in Organic and Bio-materials for Energy and Sensor Applications & in Bio-organic Chemistry (Nucleic Acid Chemistry, Drug-DNA Interactions, Electron Transfer in Biological Systems, Self Assembly on Biological Templates, Diagnostic Probes)

Principal Scientist & AcSIR Assiociate Professor Office: Lab 214, Sir C. V. Raman Block Photosciences and Photonics Section CSTD, CSIR-NIIST, Industrial Estate Thiruvananthapuram, Kerala 695019

Email: joshyja@gmail.com; joshy@niist.res.in

Tel : (+91)-471-2515476 (O); (+91)-9495611444 (M)

Google Scholar Link: http://scholar.google.co.in/citations?user=W3GOD0wAAAAJ&hl=en

- Recipient of DST-Ramanujan Fellowship (2012-2017)
- Member of Royal Society of Chemistry (MRSC) & CRSI

Details of patents

- Viologen linked acridine based molecule and process for the preparation thereof (D. Ramaiah, N. V. Eldho, and J. Joseph, US Patent No. 6630481 B2 dated Oct. 7, 2003 & UK Patent No. 2378440B dated November 30, 2005)

- A process for the preparation of viologen linked acridine based molecule use as phototherapeutical and catalytic photoactivated DNA cleaving agents (D. Ramaiah, N. V. Eldho and J. Joseph, CSIR# 368/2000 dated 27/2/2001; INDIA)

Education

M. Sc. Organic Chemistry 1997-1999
Mahatma Gandhi University, Kerala

Ph. D. (Chemistry) 1999 – 2004
University of Kerala (CSIR-NIIST, Trivandrum)

Professional Information

Postdoctoral Fellow 2004-2006
Georgia Institute of Technology, Atlanta, GA, USA

Research Scientist II 2006-2012
Georgia Institute of Technology, Atlanta, GA, USA

Scientist, Ramanujan Fellow & AcSIR Assistant Professor 2012-2015
CSIR-NIIST, Thiruvananthapuram, India

Senior Scientist 2015-to date
CSIR-NIIST, Thiruvananthapuram, India

Broad Areas of Interest

- Organic and bio-materials for energy and sensor applications
- Bio-organic Chemistry (Nucleic acid chemistry, drug-DNA interactions, electron transfer in biological systems, self assembly on biological templates)
-

AcSIR Course Teaching

CHE-NIIST-2-4106 Advanced Photochemistry
CHE-NIIST-4-4101 Project proposal writing & presentation

Past and Present Group Members

Research Scholars (Present Ph. D. Students)	Project Assistants	KSCSTE PDF
Ms. Sajena K.S.	Ms. Pavithra V. Prabhu	Dr. Shanti Krishna A.
Ms. Anjali B.R.	Mr. Arjun V. Prakash	
Ms. Nishna N.	Mr. Shaludheen S.	
Ms. Shibna Balakrishnan	Ms. Aswathi H.	
	Ms. Anagha Thomas	

(Completed Ph. D. Students)
Dr. Sreejith M. (PDF; Georgia Tech, Atlanta, USA)
Dr. Sandeepa K.V. (PDF; Shanghai Jiao Tong University, China)
Dr. Silja Abraham (PDF; Georgia Tech, Atlanta, USA)

Recent Publications

- *New J. Chem.* 2018, *42*, 5456-5464
- *Faraday Discuss.* 2018, *207*, 459-469
- *ACS Med. Chem. Lett.* 2018, *9*, 323-327
- *Chem. Mater.* 2017, *29*, 9877-9881
- *Chem. Eur. J.* 2017, *23*, 11404-11409; *Chem. Eur. J.* 2017, *23*, 6570-6578
- *Chem. Eur. J.* 2017, *23*, 15759-15765

Books/Reports/Chapters/General articles etc

Chapter 9, 271-300; Self-Assembled Functional Fullerenes and DNA Hybrid Nanomaterials for Various Applications *(In Templated DNA Nanotechnology:FunctionalMolecule-Oligoncleotide Nanoarchitectures)*

Open Position for Ph.D. Program

Interested students can apply through AcSIR Ph.D. Program

Welcome to Research Group of
Dr. Karunakaran Venugopal @ CSIR-NIIST

Broad Area Of Interest: Ultrafast Spectroscopy (Physical Chemistry)
[Ultrafast Excited State Relaxation Dynamics of Bio-molecules and Functional Materials]

Principal Scientist & AcSIR Coordinator
Office: Room No. 201, Sir C. V. Raman Block ,
Photosciences and Photonics Section
CSTD, CSIR-NIIST, Industrial Estate, Pappanamcode,
Thiruvananthapuram-19
Email: k.venugopal@niist.res.in
Contact: 0471-2515240, 9048392174
CSIR-NIIST Profile Link:
https://www.niist.res.in/english/scientists/karunakaran-venugopal/profile.html

Research Areas:

Materials: Ultrafast dynamics involved in the singlet fission chromophores, TADF molecules, dye sensitized solar cell and bulk hetero-junction, organics light emitting diodes, polymorphism, photo responsive materials and photophysical characterization of self-aggregated molecules.

Biophysical Chemistry: Ultrafast excited state dynamics and low frequency vibrational dynamics of heme proteins, femtosecond solvation dynamics, and excited state dynamics of DNA bases.

Research Techniques:

Ultrafast Spectroscopy: Femtosecond Pump/Super Continuum Probe Spectroscopy, Fluorescence Up-conversion, Femtosecond Vibrational Coherence Spectroscopy, Resonance Raman Spectroscopy, Time Correlated Single Photon Counting, Laser Flash Photolysis and Stopped Flow Technique.

AcSIR Course Teaching

CHE(NIIST): 1-002: Analytical Tools and Instrumentation: 1-0-0-1
CHE(NIIST): 3-054: Ultrafast processes and Spectroscopy: 2-0-0-2
CHE(NIIST): 3-036: Photoinduced electron and Energy Transfer: 2-0-0-2

Thesis Supervision and Guidance

Ph. D Students	: 5 (on going)
M. Sc. Project Students	: 20 (Completed)

Publications

Papers published/in peer-reviewed international journals : 30

Education

Academic

- **2003 – 2007** : **Ph. D** *(Magna Cum Laude)* in Physical Chemistry, Humboldt Universität zu Berlin, Berlin, **Germany** (Guide: **Prof. Nikolaus P. Ernsting**)
- **1994 – 1996 : M. Sc.** in Chemistry, University of Madras, Chennai, India.
- **1991 – 1994** : **B. Sc**. in Chemistry, University of Madras, Chennai, India

Technical

- **2002 : Diploma in Management,** Indira Gandhi National Open University, India
- **1997: Diploma in Chemical Processes Instrumentation and Control,** Annamalai University, Tamil Nadu, India**.**
- **1998 : Diploma in Quality Control Management & ISO 9000,** National Institute of Industrial Research & Development, Chennai, India.

Research Experience

- **March 2014 - Till date** : **Senior Scientist**, Photosciences and Photonics section, Chemical Sciences and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, Kerala, India
- **July 2011- March 2014** : **DST-SERC Fast Track Young Scientist**, CSIR-NIIST, Thiruvananthapuram, India.
- **August 2007- April 2011** : **Post Doctoral Research Associate**, Northeastern University, Boston, USA
- **April 2003- July 2007** : **Scientific Co-Worker**, Humboldt University of Berlin, Berlin, Germany.
- **May 1998- March 2003** : **Project Assistant**, National Center for Ultrafast Processes, University of Madras, India.
- **April 1997- May 1998** : **Quality Control Chemist**, M/s. Tetrahedron Public Limited, Ambattur Industrial Estate, Chennai, India.

Awards & Fellowships

- **ISCB** young scientist award 2012 in chemical sciences
- **DST** fast track scheme for young scientist 2011
- Dependent child care award 2009 - American Physical Society (USA)

Open Position for Ph.D Programme

Interested students can apply through AcSIR Ph.D Programme

Welcome to Research Group of Dr. V. K. Praveen

Senior Scientist & Assistant Professor

Photosciences and Photonics Section
Chemical Sciences and Technology Division
CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST)
Industrial Estate P. O.
Thiruvananthapuram 695 019, Kerala, INDIA

Email: vkpraveen@niist.res.in
vkpraveen@gmail.com
Ph: 91-471-2515318 (Off.), 9567326911

"We focus on the design and synthesis of new supramolecular systems and their self-assembly. Our fascination is in tuning the properties of fluorescent molecules to utilize them for sensing and security applications"

Professional Experience

- **June 2018 - Till date:** Senior Scientist at Photosciences and Photonics Section, CSTD, CSIR-NIIST
- **January 2016 - June 2018:** Scientist Fellow at Photosciences and Photonics Section, CSTD, CSIR-NIIST
- **February 2014 - January 2016:** Research Associate and DST-Young Scientist, Photosciences and Photonics Section, CSTD, CSIR-NIIST
- **October 2011 - October 2013:** European Union, Marie Sklodowska Curie International Incoming Fellow (MC-IIF) at ISOF- CNR, Molecular Photoscience Group, Bologna, Italy (Mentor: Dr. Nicola Armaroli)
- **April 2009 - March 2011:** Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellow at Department of Chemistry and Biotechnology, School of Engineering, The University of Tokyo, Japan (Mentor: Prof. Takuzo Aida).
- **December 2007 - March 2009:** Global Centers of Excellence (GCOE) Postdoctoral Fellow at Department of Chemistry and Biotechnology, School of Engineering, The University of Tokyo, Japan (Mentor: Prof. Takuzo Aida)
- **2002-2007:** Research Fellow, at Photosciences and Photonics Section, CSTD, CSIR-NIIST, Thiruvananthapuram, India (Mentor: A. Ajayaghosh). PhD obtained from Kerala Univeristy

Research Interests

- ❑ Systems Chemistry and Pathway-Complexity of Supramolecular Assemblies
- ❑ Photophysical Properties of Fluorescent Molecules
- ❑ Fluorescent Materials for Security and Sensing Applications

Ongoing Research Projects

- ❑ Fluorescent Materials for Security Applications, CSIR funded Fast Track Translational Project [2018-2020]
- ❑ Development of Cellular Sensors: Biocompatible fluorescent molecules for sensing and cellular imaging of pH, Zn2+ and reactive oxygen species, CSIR funded Fast Track Translational Project [2018-2020]
- ❑ Design and Development of Efficient, Stable and Cost Effective Organic Dyes for Application in Dye-Sensitized Solar Cells, DST-SERB Organic Chemistry Special Call - Core Research Grant. [2019-2022]

Publicaitons:

Link to Google Scholar profile

Link to Research Gate profile

Link to ORCiD profile

Link to Web of Science Researcher ID profile

Open Position for PhD Program

Interested students can apply through AcSIR PhD Program

****The only way to really find out "if it will work" is to do it****

Welcome to Research Group of Dr. A. Kumaran @ CSIR-NIIST

Research focus: Our research falls in the broad area of Natural Product Chemistry. All our research aims for better understanding of the significance of secondary metabolites in plants and for better utilization of the metabolites in various applications. We mainly develop Herbal drugs and Phytopharmaceuticals for various ailments. Much of this group's research involves collaboration between a multidisciplinary team of scientists of discovery biologists for target identification and validation of traditional Indian medicines. Currently working on product development for diabetes mellitus, hypertension, and reproductive health problems.

Principal Scientist & Associate Professor, AcSIR

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Vertical PPS extension
Chemical Sciences &Technologies Division
CSIR-NIIST, Industrial Estate. P. O
Thiruvananthapuram
Pin: 695019

Email:
kumaarana@gmail.com,
akumaran@niist.res.in
Tel No. 0471-2535614
Mobile No: 8714510546

Website:
https://www.niist.res.in/english/scientists/a-kumaran-/home.html

Google Scholar Link:
https://scholar.google.co.in/citations?user=qq-aYOAAAAAJ&hl=en

Academic Credentials

1991-1993 M. Sc. (Bharathidasan University, Tamilnadu)
1993-1994 M.Phil. (Annamalai University, Tamilnadu) 2003-2006 Ph.D. (University of Madras, Chennai, Tamilnadu)

Professional Experience

1995-1995 Resource Person, Annamalai University,
1995-1996 Quality control chemist, Sun Pharma, Chennai
1996-2003 Senior Research Associate, SPIC Pharma, Chennai
2006-2007 Senior Scientist, Sami Labs, Bangalore 2007-2009 Postdoctoral Fellow, National Taiwan University,
2009-2012 Joint Manger, Sanmar Specialty Chemicals Ltd, Hosur
2012-2018 Scientist E2, HLL Lifecare Ltd, Thiruvananthapuram
2018- Now Principal Scientist, CSIR-NIIST, Thiruvananthapuram

Research Area

- ✓ Phytopharmaceuticals development (Bio-activity guided isolation, Formulation, Standardization and preclinical studies)
- ✓ New Herbal Formulations/Nutraceuticals for various ailments
- ✓ Analytical method development for herbal drugs and validation of methods
- ✓ Biotransformation/bioconversion of active constituents using microbes/enzymes
- ✓ Semi-synthetic modification and structure elucidation of lead compounds to enhance the activity

Awards and Accolades

- ❖ Recipient of Three Vijay Diwas awards from HLL Lifecare Ltd for various achievements
- ❖ Recipient of Post-Doctoral Fellowship by National Science Council, Taiwan
- ❖ Best performance award of the year – 2010 – Sanmar Specialty Chemicals Ltd, India
- ❖ Gold medal for first rank in M.Sc degree

Present Group Members

Hari Priya V. M. SRF, ICMR
Anand Ganapathy A. JRF, ICMR
Sunila S., Ph.D student, JRF, CSIR

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D. Program

Research Group of Dr. Sunil Varughese @ CSIR-NIIST

We explore the crystal engineering routes to tune the physicochemical properties of molecular materials—Active Pharmaceutical Ingredients (APIs) (by developing new solid forms) and fluorescent materials (non-covalent routes to tune the emission properties) —and the approach remains as an attractive prospect. We integrate the concepts of crystal engineering, high-throughput screening and combinatorial synthesis to tune the molecular arrangements in the solid state and to deduce the structure-property correlations. In recent times we use nanoindentation on precise crystal faces to provide molecular basis for the mechanical response.

Principal Scientist &
Associate Professor, AcSIR

Office: Lab 104,
C. V. Raman Block
Chemical Sciences &Technologies Division
CSIR-NIIST, Industrial Estate. P. O
Thiruvananthapuram

Email: **s.varughese@niist.res.in**
Phone (O): **+91 (0)471 2515438**
Phone (R): **+91 (0)471 2494998**
Mobile: **+91 (0)9995807273**
Web: **http://niist.irins.org/profile/64957**
Twitter: **@SunVarughese**

Google Scholar Link:
https://scholar.google.co.in/citations?user=xK3Kg9gAAAAJ&hl=en

ResearcherID: **C-4613-2008**
ORCID: **0000-0003-0712-915X**

Research profile

2003-2007	**PhD, CSIR-National Chemical Laboratory Pune** *(Research advisor: Prof. V. R. Pedireddi)*
2007-2009	**SFI Postdoctoral Fellow, Trinity College Dublin** *(Research advisor: Prof. Sylvia Draper)*
2009-2013	**DST Young Scientist, IISc Bangalore** *(Research advisor: Prof. Gautam R. Desiraju)*
2013-2016	**Scientist Fellow, CSIR-NIIST**
Since 2016	**Senior Scientist, CSIR-NIIST**

Broad areas of research

- **Crystal engineering of functional materials**
- **Solid state properties and phase transition behavior**
- **Molecular recognition and supramolecular chemistry**
- **Chemical crystallography**

Membership of professional bodies

- **Life member, Indian Crystallographic Association (ICA)**
- **Member, America Chemical Society (ACS)**
- **Member, Royal Society of Chemistry (MRSC)**
- **Member, British Crystallographic Association (BCA)**

AcSIR course teaching

Analytical Tools and Instrumentation

Group members of LaTTICE

Ms. Sarikalekshmi
Ms. Geeshma R.
Ms. Amrutha S.

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Nishanth K G @ CSIR-NIIST

"Our research focus is on materials development for ceramic colorants. We are interested in the area electrocatalyst for fuel cell applications.

Senior Scientist & AcSIR Assistant Professor Office: Material science and technology division,CSIR-NIIST, Industrial Estate Thiruvananthapuram
Email:nishanthkg@niist.res.in
Mobile No:9656728857
http://niist.irins.org/profile/64970
Google Scholar Link:
https://scholar.google.co.in/citations?user=1uF1ozQAAAAJ&hl=en

Education

2004-2006 M. Sc. Applied Chemistry
University of Calicut

Professional Information

2008 – 2013 Ph. D. University of Madras
2013-2014 Postdoctoral fellow, National University of Singapore
2014-Present Scientist, CSIR-NIIST, AcSIR , Assistant Professor

Broad Areas of Interest

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- Anti-corrosion coatings.
- Electro-catalysts.

AcSIR Course Teaching

CHE-NIIST-2-4122 Inorganic Pigment
CHE-NIIST-3-4135 Advanced Electrochemistry

Present Group Members

Ms. Krishnapriya K V
Ms. Roshima K
Mr. Thejus P K

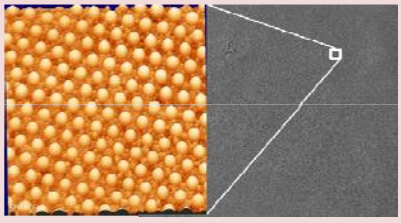
Open Position for Ph.D Program

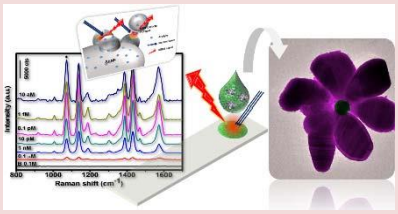
Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Saju PILLAI @CSIR-NIIST

Research focus: At the outset, our research focuses on the development of functional polymer/nanomaterials-based platforms for environmental health safety, commodity specific food safety, healthcare, national security and societal applications.

Principal Scientist & Associate Professor, AcSIR Office: Room No. 325B
1st Floor, Main Building, Materials Sciences &Technologies Division, CSIR-NIIST, Thiruvananthapuram, Kerala 695019, INDIA
E-mail: pillai_saju@niist.res.in
Phone. (+91) 0471-2515489
https://scholar.google.co.in/citations?user=jXUO1ekAAAAJ&hl=en





Broad Areas of Interest

- Nanochemistry, Speciality polymers, Surface science
- Stimuli-responsive colloidal photonic crystals
- Nanocellulose-derived functional materials
- Biodegradable natural fiber-based systems

Education

- **2005, Ph.D.,** Natural Sciences (Dr. rer. nat.), **Ulm University**, Ulm, GERMANY
- **2002, M.Sc.,** Chemistry (Polymer Science**), Mahatma Gandhi University**, Kerala, INDIA

Professional Information

- **2016 – present, Senior Scientist**, Functional Materials Section, Materials Science and Technology Division, **CSIR-National Institute for Interdisciplinary Science and Technology (NIIST)**, Kerala, INDIA
- **2016 – 2017, Senior Researcher**, The Interdisciplinary Nanoscience Center (**iNANO**), **Aarhus University**, Aarhus, DENMARK
- **2012 – 2016, Scientist**, Functional Materials Section, Materials Science and Technology Division, **CSIR-National Institute for Interdisciplinary Science and Technology (NIIST)**, Kerala, INDIA
- **2009 – 2012, Post doc,** Department of Mechanical and Manufacturing Engineering (M-Tech), **Aalborg University,** Aalborg, DENMARK
- **2006 – 2009, Post doc**, The Interdisciplinary Nanoscience Center **(iNANO), Aarhus University**, Aarhus, DENMARK

AcSIR Course Teaching

- **CHE-NIIST- -3-4129, Polymeric Hierarchical Structures and Properties**
- **CHE-NIIST-3-4131, Soft Nanomaterials and Functional Polymers**
- **CHE-NIIST-2-4109, Advanced Materials Characterization**

Open Position for Ph.D. Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. E. Bhoje Gowd@ CSIR-NIIST

Research focus: Our group research interests are in the areas of polymer self-assembly, nanostructured materials, polymer crystallization, biodegradable polymers, polymer/inorganic hybrid nanocomposites and polymer-solvent complexes.

Senior Principal Scientist & Associate Professor, AcSIR

Materials Science & Technology Division
CSIR-NIIST, Industrial Estate
Thiruvananthapuram
Email:
bhojegowd@gmail.com,
bhojegowd@niist.res.in

Mobile No: 9048427911

https://www.niist.res.in/english/scientists/bhoje-gowd-e/home.html

https://bhojegowd.wixsite.com/scientist-site

Google Scholar Link:
https://scholar.google.co.in/citations?user=Lckvo3wAAAAJ&hl=en

Total no. of papers – 52
Total citations – 1237
H-index - 20

Education

1994-1997: M.Sc. (Tech.) in Polymer Science & Technology, SK University, Anantapur, India
1999-2005: Ph.D. in Chemistry, University of Pune, Pune, INDIA
*** Work was carried out at CSIR-National Chemical Laboratory, Pune, India**

Professional Information

2005-2007 Postdoctoral Fellow, Toyota Technological Institute, Japan2007-2009 Alexander von Humboldt Fellow, IPF, Dresden, Germany 2009-2010 Centenary Fellow, IISc, Bengaluru, India
2010-2015 Ramanujan Fellow, CSIR-NIIST
2011-2014 Senior Scientist, CSIR-NIIST
2014 Visiting Scientist, Stony Brook University, Stony Brook, NY, USA
2018 Raman Research Fellow, National Tsing Hua University, Taiwan
2014- Principal Scientist , CSIR-NIIST

AcSIR Course Teaching

CHE-LAB-102: Fundamentals of X-ray diffraction and Scattering, Thermal analysis
CHE-LAB-300: Polymeric Hierarchical Structures and Properties
PHY(NIIST):2-222: Advanced Materials Characterization

Recognitions

- **Pioneering Investigator by RSC Polymer Chemistry (2019)**
- **Professor Kaushal Kishore Memorial Award of The Society for Polymer Science, India (SPSI) (2018)**
- **Raman Research Fellowship, CSIR, Government of India (2017-2018)**
- **Materials Research Society of India (MRSI) Medal (2016)**
- **IUSSTF Research Fellowship, Indo-US Science and Technology Forum (2013-2014)**
- **Ramanujan Fellowship, DST, Government of India (2010-2015)**
- **Centenary Fellowship, IISc, Bengaluru, India (2009-2011)**
- **Alexander von Humboldt Foundation Fellowship, Germany (2007-2009)**
- **Bruce Hartmann Award for Young Scientist, 2006, Polychar-14, IUPAC Conference, Japan.**

Present Members

Dr. Lakshmi V (CSIR-RA)
Mrs. Sijla Rosely C.V
Mrs. Deepthi Krishnan
Ms. Jerin K Pancrecious (Joint student with Dr. TPD)
Ms. Praveena N M
Mr. Vipin G Krishnan
Mr. G Virat
Mrs. Sruthi Suresh
Mr. Amal Raj R B (supportive staff)

Former Members

Dr. P. Shaiju
Dr. Baku Nagendra
Dr. Angel Mary Joseph (Joint student with Dr. KPS)
Dr. S. Nagarajan, (CSIR-RA)

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. C. H. Suresh @ CSIR-NIIST

Research focus: Our research falls in the broad area of Applied Theoretical and Computational Chemistry. The state-of-the-art quantum chemical methods have been used to study structure and reactivity of molecular systems. We made significant original contributions to the electronic structure theory related to structure, bonding and reactivity of organic, organometallic and inorganic systems. We derived several structure-activity relationships by strongly correlating theoretical results with experimental data and made notable contributions to the elucidation of several homogeneous catalytic reactions including olefin and alkyne metathesis, water-splitting reactions, and CO_2 sequestration reactions etc.

Chief Scientist & Professor, AcSIR

Office: Lab 105,
C. V. Raman Block
Chemical Sciences &Technologies Division
CSIR-NIIST, Industrial Estate. P. O
Thiruvananthapuram
Email: sureshch@gmail.com, sureshch@niist.res.in
Mobile No: 9446552294

http://www.niist.res.in/chsuresh

Google Scholar Link:
https://scholar.google.co.in/citations?user=F80HCBgAAAAJ&hl=en

http://www.researcherid.com/rid/D-3014-2011

Total no. of papers – 195
Total citations – 4900
H-index - 38

Education

1990-1992 M. Sc.(M.G. University., Kottayam)

Professional Information

1993-1999 Ph. D. University of Pune, Pune
2000-2004 Postdoctoral Fellow, Nagoya University, Japan
2004-2005 Postdoctoral Fellow, Indiana University, USA
2005-2008 Scientist C, CSIR-NIIST
2008-2011 Senior Scientist , CSIR-NIIST
2011-2015 Principal Scientist , CSIR-NIIST
2015 Onwards Senior Principal Scientist , CSIR-NIIST

Broad Areas of Interest

- **Computational Chemistry**
- **Electronic Structure Theory**
- **Homogeneous Catalysis**

AcSIR Course Teaching

CHE-NIIST-2-4103 Advanced Quantum Mechanics CHE-NIIST-2-4104 Advanced Organometallic ChemistryCHE-NIIST-2-4105 Advanced Coordination Chemistry CHE-NIIST-3-4101 Electronic structure theory CHE-NIIST-3-4102 Molecular modeling and simulation

Recognitions

Chemical Research Society of India, Bronze Medal, 2019
Japan Chemical Society Distinguished Lectureship Award, 2014
MIT Boston (YIM) Young Scientists Award, 2013
Chemical Research Society of India, Young Scientist Award, 2012
Alexander von Humboldt Foundation Fellowship, 2009

Present Members

Ms. Remya G S
Ms. Bijina P V
Ms. Divya Velayudhan
Ms. Anila Sebastian
Ms. Anjali Krishna P K

Former Members

Dr. Jomon Mathew
Dr. Sajith P K
Dr. Ajitha M J
Dr. Sayyed F B
Dr. Sandhya K S
Dr. Neetha Mohan
Dr. Remya K
Dr. Remya P R
Dr. Della T D
Dr. Rakhi R
Dr. Anjali B

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Sasidhar B. S. @ CSIR-NIIST

Research focus: Our group is focused on the interdisciplinary aspects of chemistry with respect to medicinal and material properties. This includes methodology (One-pot, multicomponent), target-oriented synthesis, medicinal chemistry, and phytochemistry. We have developed several novel methodologies for biologically relevant heterocycles and complex molecular hybrids. We work on new/patentable processes for chemical intermediates and API's. We also have very active programme on Phyto-chemistry for the identification of natural products for therapeutic applications. The focused activity of the group on fundamental aspects of organic and medicinal chemistry has led to the successful translational projects.

Principal Scientist & Associate Professor, AcSIR Office: Lab 108,
C. V. Raman Block
Chemical Sciences &Technology Division
CSIR-NIIST, Industrial Estate. P. O
Thiruvananthapuram
Email: drsasidharbs@gmail.com, drsasidharbs@niist.res.in
Mobile No: 9497260897

https://www.niist.res.in/english/scientists/sasidhar-b-s-/personal.html

Google Scholar Link: https://scholar.google.co.in/citations?user=0C31uSIAAAAJ&hl=en

Total no. of papers – 38
Total citations – 458
H-index - 9
Total no. of patents – 01

Education

2004-2006 M.Sc. Organic Chemistry (Gulbarga University., Gulbarga)

Professional Information

2006-2007 Research fellow, Ranbaxy laboratories Ltd.

2007-2008 Research Trainee, Jubilant Organosys Ltd.

2008-2012 Ph. D. Gulbarga University, Gulbarga.

2012 onwards Scientist, CSIR-NIIST, Trivandrum.

Broad Areas of Interest

- **Synthetic Organic Chemistry / Methodology**
- **Drug Discovery / Medicinal Chemistry Phyto-**
- **Chemistry / Natural Product Chemistry**

AcSIR Course Teaching

CHE-NIIST-2-4102 Advanced Organic Chemistry CHE-NIIST-3-4107 Chemistry and Biology of Heterocycles

Recognitions

- **Kerala State Young Scientist Award (KSYSA)- 2017.**
- **Yong Scientist Award - NACEAC-2009.**
- **CSIR-Senior Research Fellow, 2010-2012.**
- **UGC- Research Fellowship in Science for Meritorious Students (RFSMS) 2008-2010.**
- **University Merit Fellowship for Research, 2007-2008.**
- **University 3rd Rank in M.Sc. Organic Chemistry- 2006.**

Present Members

Ms. Ashitha K T

Ms. Renjitha J
Mr. Praveen Kumar V
Mr. Basavaraja
Ms. Sangeetha Mohan

Former Members

Dr. Jagadeesh Krishnan

Dr. Fathimath Salfeena C T

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr Sreeja Kumari S S @ CSIR-NIIST

Research Focus: Our group research activity spans surface engineering, advanced nanomaterials, functional coatings, Light Alloys and Composites and Structure-property correlation. We are now developing graphene based membrane for water desalination from graphite ore.

Principal Scientist

Office Lab : 216
Material Science & Technology Division (MSTD)
Main Building (Bhatnagar Block)
CSIR-NIIST, Industrial Estate P.O
Thiruvananthapuram-695019 E-mail: sreejakumari@niist.res.in
sreejakumariss@gmail.com
Phone : 0091-471-2515371 (O)
Mobile: 91-9442217259

http://www.niist.res.in/sreejaKumariss

- Life Member, Indian Institute of Metals
- Member, Indian Institute of Foundrymen
- Member, Materials Research Society of India

Present Members:

Ms Aswathy S Nair
Mr Yedhu Krishnan
Mr Prasanth K
Ms Neenu Manohar
Ms Nitya Babu

Education

2007- Ph.D. Materials Engineering
CSIR- National Institute for Interdisciplinary Science and Technology, Trivandrum, India (CUSAT, Cochin) **1999-M.Tech, Metallurgy**
National Institute of Technology, Surathkal
(Former Karnataka Regional Engineering College, Surathkal)
1995-M.Sc, Chemistry
Madras Christian College (University of Madras)

Professional Information

2012-2017 **Scientist** at CSIR- Central Electrochemical Research Laboratory (CECRI), Karaikudi
2017 Onwards **Scientist** at CSIR- National Institute for Interdisplinary Science and Technology (NIIST), Thiruvananthapuram

Broad Area of Interest

- **Biomimetic and Smart coatings**
- **Advanced Materials**
- **Light Alloys and Composites,**
- **Structure-property correlations**

Recognition

- DST Fast Track Young Scientist Fellowship
- CSIR- Research Associate Fellowship
- CSIR - Senior Research Fellowship
- GATE Fellowship for Postgraduate studies in Engineering
- Honorarium Award-Maney Publishing

AcSIR Course Teaching

CHE-NIIST-3-4125 Surface Science and Technology

Open Position for Ph.D Program
Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Sreejith Shankar @ CSIR-NIIST

"Our research focus is in the area smart and functional materials for energy, security and related applications. We are interested in synthesis of organic as well as coordination based hybrid materials for electrochromism, fluorescence and superhydrophobicity. The areas of expertise span solution and surface chemistry, electrochemistry, thin films, photophysics, and energy management."

Senior Scientist &
Assistant Professor, AcSIR

Office:
Room 213/Lab 217

Address:
Sir C. V. Raman Block
Photosciences and Photonics
Section, CSTD, CSIR-NIIST,
Thiruvananthapuram – 695 019

Email:
sreejith.shankar@niist.res.in
sreejith.shan@gmail.com

Telephone:
+91 471 2535 613 (Off)
+91 94462 84213 (Mob)

Google Scholar:
https://scholar.google.co.in/citations?user=cb1wG9kAAAAJ&hl=en

ORCID:
orcid.org/0000-0002-1158-593

Scopus Author ID:
55315068700

Education

2005-2007 MSc (Organic Chemistry)
Mahatma Gandhi University, Kerala, India

Professional Information

2008 – 2011 PhD (Chemistry)
Faculty: Industrial Chem. & Chem. Engg.
Politecnico di Milano, Milan, Italy

2011-2014 Marie Curie Early Stage Researcher, Visiting Scientist
Weizmann Institute of Science, Israel

2014-2015 Academic Intern (Non-tenure track)
Weizmann Institute of Science, Israel

2015 SFB 677 Research Fellow
University of Kiel, Germany

2015-2016 Humboldt Research Fellow
University of Kiel, Germany

2016-2017 DST Inspire Faculty
CSIR-NIIST, Thiruvananthapuram, India

2017- Ramanujan Fellow and Asst. Prof., AcSIR CSIR-NIIST, Thiruvananthapuram, India

Broad Areas of Interest

- ❑ Energy Management and Conservation
- ❑ Electrochromic Materials
- ❑ Fluorescent Materials
- ❑ Photochemistry and Electrochrmistry
- ❑ Smart Coatings and Thin Films

AcSIR Course Teaching

- ❑ CHE-NIIST-1-4102 Analytical Tools and Instrumentation

Group Members

- ❑ Ms. Indulekha M. (PhD, Supervisor: Dr. A. Ajayaghosh)
- ❑ Ms. Anjali N.
- ❑ Ms. Anila S.
- ❑ Mr. Navin Jacob
- ❑ Ms. Nishitha Gopalakrishnan

Welcome to Research Group of Dr. Ishita Neogi @ CSIR-NIIST

"Our research focus is in the area of material synthesis for optoelectronic applications. We are interested in synthesis of organic as well as organic inorganic hybrid materials for OLEDs and Solar cell applications. Further we have a keen interest to develop metal organic framework for various applications."

Scientist & AcSIR Assistant Professor
Office: Lab 102, C. V. Raman Block
Photosciences and Photonics Section
CSTD, CSIR-NIIST, Industrial Estate
Thiruvananthapuram
Email: ishita@niist.res.in
ishitaneogi@yahoo.in
Mobile No: 917994921654
Google Scholar Link:
https://scholar.google.co.in/citations?user=EpduJHQAAAAJ&hl=en

Education

2006-2008 M. Sc. (Organic Chemistry)
Banaras Hindu University

Professional Information

2008 – 2015 Ph. D. (Organic Chemistry)
Department of Chemistry, IIT Kanpur

2015-2016 Postdoctoral Fellow
ERI@N, Nanyang Technological University, Singapore

2016-2018 Postdoctoral Fellow
Ariel University, Ariel, Israel &
Israel Institute of Technology (Technion), Haifa, Israel

January 2019 Scientist, AcSIR Assistant Professor
Photosciences and photonics section, CSTD
CSIR-NIIST, Thiruvananthapuram, India

Broad Area of Interest

- Organic synthesis
- Design, synthesis and development of novel functional materials for optoelectronic applications
- Investigation of perovskites for LED and PV applications
- Metal organic framework

AcSIR Course Teaching

BIO-NIIST-1-003 Basic Chemistry

Past and Present Group Members

M. Sc. Project Students
Ms. Prajitha K J
Mrs. Shifna P
Ms. Athulya K R

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Ravi Shankar Lankalapalli @ CSIR-NIIST

"Our research focus is in the area of medicinal chemistry, total synthesis, natural products and synthetic methodology. Projects undertaken in our lab is towards drug discovery endeavor, biological relevance and industrial applications. Curiosity-driven synthetic organic chemistry and accelerated serendipity is the driving force in majority of our works."

Principal Scientist & AcSIR Associate Professor
Office: Lab 117, C. V. Raman Block
Organic Chemistry Section
Chemical Sciences and Technology Division,
CSIR-NIIST, Industrial Estate
Thiruvananthapuram
Email: ravishankar@niist.res.in
raviweblog@gmail.com
Mobile No: 9037386623
Office No: 0471-2515317
Link for publications:
https://www.niist.res.in/english/scientists/ravi-shankar-l/publications-.html

Education

B. Sc. (Math, Physics and Chemistry), Andhra University, India—1999
M.Sc. (Organic Chemistry), Andhra University, India—2001
M.Phil. (Chemistry), The Graduate Center, City University of New York (CUNY)—2005
Ph.D. (Chemistry), The Graduate Center, CUNY—2009

Professional Information

2009-2010 Postdoctoral Fellow
Queens College of CUNY
2009-2010 Adjunct Assistant Professor
Queens College of CUNY
2010-2011 DST Fasttrack Scientist
CSIR-NIIST
2015 Guest faculty
IISER – Thiruvananthapuram
2011-2015 Scientist
CSIR-NIIST
2015-present Senior Scientist
CSIR-NIIST

Open Position for PhD Program

Motivated students can apply anytime throughout the year

Broad Areas of Interest

- Synthetic carbohydrate chemistry
- Isolation, structure elucidation and semi-synthesis of plant and microbial based natural products
- Development of novel synthetic methods for medchem libraries
- Pharmaceutical industrial projects

AcSIR Courses

Advanced Organic Chemistry; Carbohydrate Chemistry

Past and Present Group Members

Dr. Jaggaiah Naidu Gorantla (Postdoc at Wayne State University, USA)
Dr. Chandrasekhar Challa (Scientist at Piramal, Ahmedabad, India)
Ms. Vellekkatt Jamsheena
Ms. Kollery S. Veena
Ms. Jaice Ravindran
Mr. Arun Kumar Thangarasu
Mr. K. A. Krishnakumar

Welcome to Dioxin Research Group of Dr. K. P. Prathish @ CSIR-NIIST

Our research is focussed on development of state of the art methods for the quantification and monitoring of priority environmental pollutants. Major programmes are on the emission factor determination of dioxins and PCBs, air pollution monitoring, novel sample preparation techniques, analysis of water, wastewater and industrial effluents.

Senior Scientist & AcSIR Assistant ProfessorDioxin Research Laboratory Environmental Technology Division CSIR-NIIST, Industrial Estate Thiruvananthapuram
Email: prathishkp@niist.res.in
prathishkp@gmail.com
Mobile No: 91-9447798707
Google Scholar Link:https://scholar.google.co.in/scholar?hl=en&as_sdt=0%2C5&q=Prathish&btnG=
Researcher Id: E-9021-2012

Group Members

PhD Scholars

1. Mr. Ajay S. V.
2. Mr. Jiffin Sam
3. Ms. Amala Varghese

Project Students

1. Mr. Kirankumar P S
2. Mr. Sanath K

AcSIR Course Teaching

Advanced Analytical Chemistry
Source Emission Monitoring
Microfluidics & Micro separations

Education

2002-2004 M. Sc. (Analytical Chemistry)
Govt. Arts College, University of Kerala

Professional Information

2005– 2011 Ph. D. Chemistry (Analytical), CSIR-NIIST
Degree awarded : University of Kerala

2012-2014 Postdoctoral Fellow
University of Coimbra, Coimbra, Portugal

2014- till now Scientist & Assistant Professor
ETD, CSIR-NIIST, Thiruvananthapuram, India

Areas of Interest

- Chromatographic & Mass Spectrometric Techniques
- Manual and Automated Sample preparation Techniques
- Air & Water Pollution Monitoring
- Electrochemical sensors
- Molecular imprinted polymers

Significant Achievements

- Established state of the art Dioxin Analysis Facility
- First study report in India on the emission factors of dioxins and PCBs from open burning of MSW
- NABL accreditation as per ISO/IEC 17025: 2005 for dioxins, PCBs, water and wastewater (Technical Manager)
- MoEFCC recommended Laboratory for dioxin analysis for environmental clearances in various sectors
- Setting up of Inductively Coupled Plasma Mass Spectrometer (ICP-MS) facility for elemental analysis

Open Position for Ph.D Program

Interested students can apply through AcSIR Ph.D Program

Welcome to Research Group of Dr. Kaustabh Kumar Maiti @ CSIR-NIIST

Research focus: Our research falls in the interface between chemistry, biology and nano science. We are interested in the development of both synthetic and nano carrier delivery system for efficient cancer management. In nano-bio-science area our focus is to develop sensitive diagnostic probes on SERS platform. Further we have a keen interest to develop new phytochemical entities by semi-synthetic modification from natural sources in order to generate lead molecules in the area of cancer neurodegenerative, diabetic retinopathy.

Senior Pricipal Scientist & Professor, AcSIR Office:
Lab 118,
C. V. Raman Block
Chemical Sciences &Technologies Division
CSIR-NIIST, Industrial Estate. P. O
Thiruvananthapuram
Email: kkmaiti@niist.res.in
kkmaiti29@gmail.com
Mobile No: +91-8547761544
Office: 04712515475

https://www.niist.res.in/english/scientists/kaustabh-kumar-maiti/home.html
http://kkmweb.wix.com/kkmlabwebsite
Google Scholar Link:
https://scholar.google.co.in/citations?user=wyDK3DQAAAAJ&hl=en

Total no. of publications – 55
Patents : 13
Total citations – 1603
H-index - 19

Education

1991-1993 M. Sc. (University of Calcutta**)**

Professional Information

1995-2000 Ph. D. University of Calcutta
2000-2000 Research Officer (R&D), Alembic Ltd. Gujarat, India
2001-2003 Executive (R&D), Sun Pharma Advanced Research Centre, Gujarat, India
2003-2007 Postdoctoral Fellow, POSTECH, Korea
2007-2009 Postdoctoral Research Associate,(CCRC), University of Georgia, Athens, USA **2009-2012 Research Scientist,** (SBIC)A*ATAR Singapore**2012-Onwards Senior Scientist,** CSIR-NIIST

Broad Areas of Interest

I. **Nano drug delivery system/therenostics/ nano-formulation**
II. **Non communicable disease diagnosis**
   - ❑ **Cancer diagnostics & cancer immunotherapy**
   - ❑ **Neurodegenerative disease and diagnosis**
III. **Communicable disease diagnostics-Infectious diseases**
IV. **New drug leads/ Medicinal chemistry approach/ New Phytochemical Entities (NPCEs) / Target identification**
V. **New Fluorescent probes and bio-imaging**

AcSIR Course Teaching

CHE-NIIST-2-003 :Advanced Organic Chemistry CHE-NIIST-3-008 :Carbohydrate chemistry CHE-NIIST-3-056 : Natural products and drug discovery
CHE-NIIST-1-001 : Research Methodology (Laboratory safety)

Past and Present Group

- ❖ **Ongoing Ph. D. Students: 5 (Completed :3)**
- ❖ **Postdoctoral fellow(DST-NPDF): 2**
- ❖ **Research Associates: 3**
- ❖ **Project fellows: 6**
- ❖ **M. Sc. Project Students: 19**
- ❖ **TARE Fellow : 1 ; Ph.D student from UK (3 month exchange program)**

Open Position for Ph.D Program

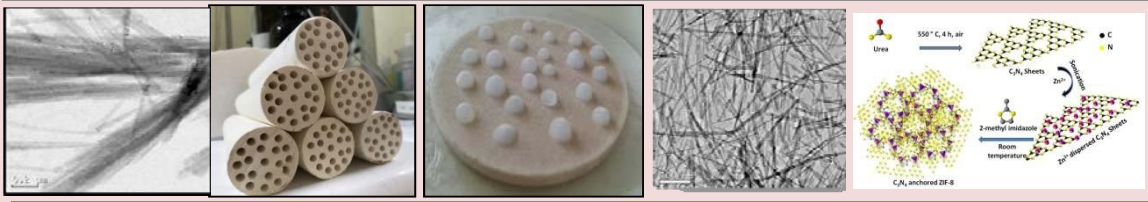
Interested students can apply through AcSIR Ph.D Program

Dr Hareesh U. S

Senior Principal Scientist
hareesh@niist.res.in
0471-2535504 (Off), 9446337222

Development of inorganic and hybrid materials for functional applications

Research Interests: Photocatalysis, Electrocatalysis, CO_2 Sorption and conversion, Functional coatings



Publications 75 **Citations 1004** **h-index 19** **Patents 15**

Professional Record

- Visiting Scientist, Institute for New materials, Saarbruecken, Germany (2001- 2004)
- Scientist Advanced Research centre International, Hyderabad, India (2004-2011)
- Senior Scientist, NIIST (2011-2014)
- **Principal Scientist, NIIST (since 2014)**

Academic Qualifications

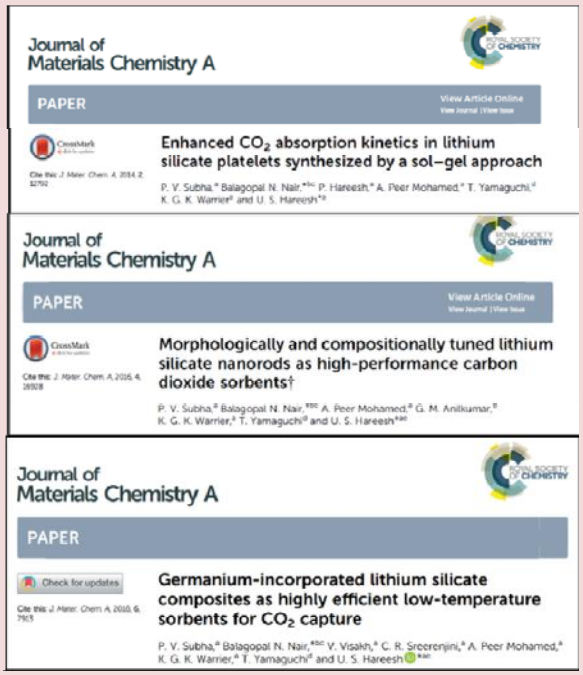
M. Sc. (Chemistry), 1992 (University of Kerala)
Ph. D. (Inorganic Chemistry), 2001 (Mahatma Gandhi University, Kottayam)

Memberships

Life Member, Indian Ceramic Society, Kolkata
Life Member, Indian Institute of Metals, Kolkata
Life Member, Materials Research Society of India

Honors and Awards

- Technology Award of ARCI (2012)
- Malaviya Award (Indian Ceramic Society in 2011)
- German Academic Exchange Service (DAAD) at Technical University of Hamburg-Harburg, Germany (1998)



https://scholar.google.co.in/citations?user=_q12BSoAAAAJ&hl=en&oi=sra
Researchgate id : ttps://www.researchgate.net/profile/U_S_Hareesh?_
Orcid id : http://orcid.org/0000-0001-6455-8220

Dr Suraj Soman

Scientist & AcSIR Asst. Prof, CSIR-National Institute for Interdisciplinary Science & Technology, Thiruvananthapuram, Kerala, India
suraj@niist.res.in, Ph: 04712515436, 8113918534

His research interest focuses on energy science research (solar cells) in particular Dye-sensitized Solar Cells (DSCs). His current research involves all aspects of DSCs spanning from molecules to materials to devices to detailed dynamic measurements. At present, he is also involved in indigenization of this technology through industry-academia collaboration in a way to exploit it for future self-powered IoTs, consumer electronics and building integrated photovoltaic (BIPV) applications.

Education

- **PhD**: Dublin City University, IRELAND, 2012 (Prof. Han Vos & Mary T. Pryce)
- **Post-Doc Work**: JCAP, Caltech, USA (2011); Michigan State University, USA (2011-2014)
- **Industrial Experience:** Dow Corning, Midlands, USA

Awards and Honors

- Kerala State Young Scientist Award (2018), BRICS Young Scientist Award (2017), DST INSPIRE Faculty Award (2014)
- International Strategic Cooperation Award from SFI, Ireland (2015)
- First Rank holder for Bachelors (2006) & Masters (2008) with 99.4% and 92.6% marks
- Rajiv Gandhi Science Talent Research Fellowship by JNCSR (2006), KVPY Fellowship (2005)

Current Research Interest

- **Dye-sensitized solar cells** [development of new dyes, electrolytes, fabrication of efficient devices, understanding the dynamics of interfacial electron transfer processes], **Perovskite Solar Cells** and **Solar Fuels** [molecular photocatalysis]
- Development of indigenous Dye-sensitized solar cell (DSSC) technology for ***Smart IoT Portable Electronics and Building Integrated Photovoltaic (BIPV)*** applications in tune with the objectives of ***'Make in India'*** leading to industry-academia synergy
- Societal interventions empowering people on the need to shift to renewables