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Research Areas Photophysics/photochemistry of solar energy and sensory materials		

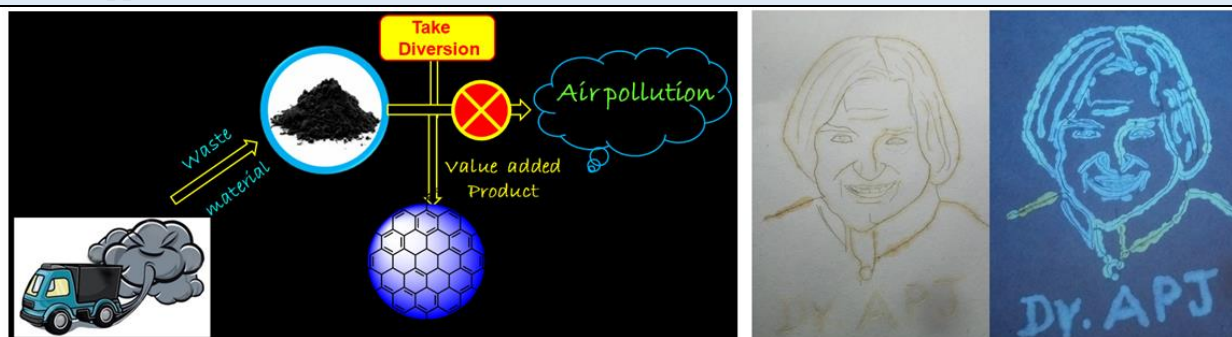
Projects & Publications Summary

Project		Publication Count		Citation Count			Impact Factor	
Completed	03	SCI	092	Citations	Google	SCOPUS	351.32	
Ongoing	00	SCOPUS	005		2684	2349		
Submitted	00	Books	000		h-index	29		27
		Books chapters	001		i10index	55		55

National/International Collaboration

- The University of Melbourne, Australia – Photophysical process of nanomaterials
- University of Gdansk, Poland – Computational studies of sensory molecules
- North Eastern Hill University, India – Synthesis of photoactive molecules
- Loyola College, India - Computational studies of sensory molecules
- University of Kalyani, India - Synthesis of nanomaterials

Research snippets



Research facilities



Spectrofluorimeter



Spectrophotometer

Outline of Research Works

- Porphyrazine-sensitized solar cells: Rational Molecular Design, Photoinduced Processes, Panchromatic Sensitization and Devices

<ul style="list-style-type: none"> Investigating Electron Injection Dynamics of Pyrene derivatives on TiO₂ surface towards Dye Solar Cells Light induced processes of Porphyrin molecules, materials and devices for solar energy conversion Functionalized carbon nanomaterials for forensic applications Colorimetric and fluorimetric sensors for various toxic analytes 					
Details of Funded Projects					
S.No	Project Title	Funding agency	Amount (Rs.)	Duration	Collaboration
1.	Porphyrazine-sensitized solar cells: Rational Molecular Design, Photoinduced Processess, Panchromatic Sensitization and Devices	SERB-SRS	62,00,000/-	2019-22	N/A
Recent Best 5 SCI Publications					
<ul style="list-style-type: none"> Arunkumar Kathiravan, Tamilvelan Manjunathan, Kanagachidambaresan Ramasubramanian, Pushparathinam Gopinath, An Efficient Turn-ON Fluorescent Probe for Fluoride ions – Meticulous Investigations and Development of Arduino Microcomputer Integrated Smartphone Device, <i>J. Mo. Liq.</i> 345 (2022) 117042.– IF: 6.16 Arunkumar Kathiravan, Selvaraj Sengottian, Tomasz Puzyn, Pushparathinam Gopinath, Kanagachidambaresan Ramasubramanian, Praveen Ayyappan Susila, Mariadoss Asha Jhonsi, Rapid Colorimetric Discrimination of Cyanide Ions – Mechanistic Insights and Applications, <i>Anal. Methods</i> 14 (2022) 518-525.– IF: 2.89 Arunkumar Kathiravan, Themmila Khamrang, Marappan Velusamy, Madhavan Jaccob, Synthesis, Density Functional Theory and Sensitization of Indole dyes, <i>Mater. Lett.</i> 283 (2021) 128745. – IF: 3.42. Arunkumar Kathiravan, Annasamy Gowri, Venkatesan Srinivasan, Trevor A. Smith, Muthupandian Ashokkumar, Mariadoss Asha Jhonsi, A Simple and Ubiquitous Device for Picric Acid Detection in Latent Fingerprints using Carbon Dots, <i>Analyst</i> 145 (2020) 4532–4539. – IF: 4.61 Arunkumar Kathiravan, Annasamy Gowri, Themmila Khamrang, Madhu Deepan Kumar, Namasivayam Dhenadhayalan, King-Chuen Lin, Marappan Velusamy, Madhavan Jaccob, Pyrene based Chemosensor for Picric acid – Fundamentals to Smartphone device design, <i>Anal. Chem.</i> 91 (2019) 13244-13250.– IF: 6.98 					
Fellowships/Awards/Recognitions					
<ul style="list-style-type: none"> Recipient of <i>SERB Research scientist scheme</i> (2019), Government of India Recipient of <i>Highly cited corresponding author</i> (2019) – recognized from royal society of chemistry Recipient of <i>SERB young scientist scheme</i> (2013), Government of India Recipient of <i>DST-INSPIRE faculty award</i> (2013), Government of India Recipient of <i>Post doctoral research fellowship</i> (2009), Lund University, Sweden. 					
Editorial/Review Activities					
<ul style="list-style-type: none"> Journal of Physical Chemistry – ACS ACS Applied Nanomaterials ACS applied materials & interfaces New Journal of Chemistry - RSC Material Chemistry Frontiers - RSC 					

- Chemical Physics Letters - Elsevier
- Journal of Luminescence - Elsevier
- Journal of Photochemistry and Photobiology A: Chemistry - Elsevier
- Journal of Molecular Structure - Elsevier
- Sensors and Actuators B: Chemical - Elsevier