

## SwarnaJayanti Fellowships Scheme- 2020-21

### Applications Received -Chemical Sciences

<b>S.No</b>	<b>Title of the Proposed Project Proposal/ Temporary File No.</b>	<b>Applicant Name And Institute</b>
1.	Photoresponsive Memristive Discotic Liquid Crystals for the Development of Conceptually New Artificial Eye  DST/SJF/CS/2021/131	Dr.Santanu Kumar Pal  Indian Institute of Science Education and Research, Mohali
2.	Single Particle Approaches to Unravel the Catalytic Properties of Plasmonic Materials  DST/SJF/CS/2021/130	Dr.Pramod P Pillai  Indian Institute of Science Education and Research, Pune
3.	Structure and rational design of melanin and melanin based materials– an in-silico approach  DST/SJF/CS/2021/129	Dr.Debashree Ghosh  Indian Association for the Cultivation of Science, Kolkata
4.	Strategic Integration of Chemical Reactivity, Wettability and Topography for Combating the Crisis of Fresh-Water  DST/SJF/CS/2021/128	Prof. Uttam Manna  Indian Institute of Technology, Guwahati
5.	Unveiling the challenges of defect-enriched nanocarbon catalyst for third-generation ammonia synthesis  DST/SJF/CS/2021/127	Dr.Ramendra Sundar Dey  Institute of Nano Science and Technology, Mohali
6.	Economic High Energy Density Batteries for Automobiles and Grid Storage with Sustainable Versatile Sodium Insertion Materials  DST/SJF/CS/2021/126	Dr.Prabeer Barpanda  Indian Institute of Science, Bengaluru
7.	Defect Engineered Earth Abundant Metal-Based Materials for Electrochemical Synthesis of Nitrogen Fertilizers under Ambient Conditions  DST/SJF/CS/2021/125	Dr.Pravin P Ingole  Indian Institute of Technology-Delhi
8.	Lead optimization and therapeutic evaluation of novel compounds against corona viral diseases  DST/SJF/CS/2021/124	Dr.Brijesh Rathi  Hansraj College, University of Delhi , Malka Ganj, Delhi

9.	Tracking excitation frequency resolved ultrafast structural dynamics in excited electronic state by two-dimensional electronic impulsive stimulated Raman spectroscopy  DST/SJF/CS/2021/123	Dr.Arijit Kumar De  Indian Institute of Science Education and Research, Mohali
10.	Design, Synthesis and Applications of Amino Sugar Based Inclusion Complexes as Heterogeneous Aqueous Organocatalytic Systems for Enantioselective Organic Transformations  DST/SJF/CS/2021/122	Dr.Jyoti Agarwal  Panjab University, Chandigarh
11.	Efficient Wastewater Remediation using Bio-based Solvents  DST/SJF/CS/2021/121	Dr.Kirtika Kohli  CSIR Indian Institute of Petroleum , Dehradun
12.	Developing Visible Light Catalysed Asymmetric Dearomatisation Reactions With Molecular Oxygen  DST/SJF/CS/2021/120	Dr.Debayan Sarkar  National Institute of Technology, Rourkela
13.	Developing Coated Phosphorus Fertilizer Formulations by Using Rock Phosphate and Municipal Solid Waste  DST/SJF/CS/2021/119	Dr.Murli Dhar Meena  ICAR-Directorate of Rapeseed-Mustard Research, Bharatpur
14.	Solar-driven phonon transport in isolated hard-carbon nanostructures from light-mills to solar-driven space heating  DST/SJF/CS/2021/118	Dr.Chandramouli Subramaniam  Indian Institute of Technology-Bombay, Mumbai
15.	Ice nucleation and growth in atmospheric condition, nano-confinement and near biological inhibitor/promoter Mimetic design for food-and cryo-preservation and for atmosphere/climate improvement  DST/SJF/CS/2021/117	Dr.Biman Jana  Indian Association for the Cultivation of Science, Kolkata
16.	Natural biodegradable polymers as hydrogen storage materials and as potential adsorbents in desalination and removal of greenhouse gases  DST/SJF/CS/2021/116	Dr.V Prathyusha  Sri Sathya Sai Institute of Higher Learning, Andhra Pradesh
17.	Adsorption studies on activated carbon-modified chitosan composite for heavy metal ions removal from laboratory waste water  DST/SJF/CS/2021/115	Dr.Akshatha R Salian  St. Aloysius College (Autonomous), Mangalore, Mangaluru

18.	Beyond Lennard-Jones formulations for swarm intelligence guided navigation on potential energy surfaces involving nanostructures  DST/SJF/CS/2021/113	Dr.R S Swathi  Indian Institute of Science Education and Research, Thiruvananthapuram
19.	Pattern based optical sensing of clinically important analytes and environmental pollutants  DST/SJF/CS/2021/112	Dr.Prabhat Kumar Singh  Bhabha Atomic Research Center , Trombay Mumbai
20.	Synthesizing Pristine Metal Diboride Nanosheets and their Nanoparticle Hybrids as Catalysts for Hydrogen Evolution Reaction  DST/SJF/CS/2021/111	Dr.Kabeer Jasuja  Indian Institute of Technology- Gandhinagar
21.	Main-Group Compounds for Carbon Monoxide Activation  DST/SJF/CS/2021/110	Dr.Ajay Venugopal  Indian Institute of Science Education and Research, Thiruvananthapuram
22.	Development of Passive RFID Gas O <sub>2</sub> /CO <sub>2</sub> Sensors Based on MXenes/Cellulosic Membranes for Food Quality Monitoring  DST/SJF/CS/2021/109	Dr.P Biji  PSG Institute of Advanced Studies Coimabtores
23.	Metal Halide-Organic Hybrids as Efficient Next Generation Scintillator Materials for X-ray Imaging  DST/SJF/CS/2021/108	Dr.Janardan Kundu  Indian Institute of Science Education and Research, Tirupati
24.	Design, Synthesis and Evaluation of Novel Ligands for the Treatment of Dengue  DST/SJF/CS/2021/107	Dr.Sahil Kumar  Delhi Pharmaceutical Sciences and Research University, Delhi
25.	Cyclic Aryl Amino Silylene CARAS for Activation of Industrially Important Small Molecules  DST/SJF/CS/2021/106	Dr.Sakya Singha Sen  National Chemical Laboratory, Pune
26.	Strategies towards rational design of Schiff bases and their various groups of metal complexes for organic light-emitting diodes Schiff base  DST/SJF/CS/2021/105	Dr.M Sennappan  Dayananda Sagar College of Engineering, Bengaluru
27.	Design, Synthesis and Application of Chiral Alkoxyamide Phase-Transfer Catalysts  DST/SJF/CS/2021/104	Dr.Modhu Sudan Maji  Indian Institute of Technology-Kharagpur