

FORMAT FOR ANNUAL DEPARTMENT/CENTRE REPORT

(PERIOD: 1 APRIL 2019 – 31 MARCH 2020)

1. Year of Establishment of the Department /Centre: 1995

2. Academic Programmes Offered:

- (i) B. Tech. Core (Theory and Laboratory) and Elective courses in Chemistry
- (ii) B. Tech. in Chemical Science & Technology
- (iii) M. Sc in Chemistry
- (iv) Ph. D

3. No. of Laboratories with brief introduction: (Total No:) Brief Description of each

Sr. No.	Details of Laboratory	Number	Approx. Floor space (m ²)	Availability of facilities like board, LCD, PC/Laptop, AC, internet
<u>Laboratories for B. Tech and M. Sc program</u>				
01	Chemistry Laboratory (B. Tech, 1 st sem) / Chemical Technology Lab – I, B. Tech (CST)	01	200	White board, PC, internet, phone
02	Chemical Technology Lab – II, B. Tech (CST)	01	140	White board, PC, internet, phone
03	Chemical Technology Lab – III, B. Tech (CST) / Physical Chemistry Lab (M. Sc)	02	300	White board, PC, internet, phone
04	Inorganic Chemistry Lab (M. Sc) / Organic Chemistry Lab (M. Sc)	01	180	White board, PC, internet, phone
<u>Research Laboratories:</u>				
05	CHL –101, CHL – 102, CHL –103, CHL – 104, CHL –105, CHL –106, CHL – 201, CHL-202, CHL-203, CHL-204, CHL – 205, CHL – 206, CHL-3201, CHL-3202, CHL-3203, CHL-3204, CHL-3207, CHL-3209, CHEL-004, CHEL-005, CHEL-006, CHEL –101, CHEL –102, CHEL – 103, CHEL – 104, CHEL – 105, CHEL – 106, CHEL –107, CHEL –108, CHEL – 109, CHEL – 201, CHEL –202, CHEL –203, CHEL – 204, CHEL – 205, CHEL – 206, CHEL –207, CHEL – 208, CHEL – 209, CHEL –301, CHEL –302, CHEL –303, CHEL – 304, CHEL – 305, CHEL – 306, CHEL –307, CHEL –308, CHEL – 309.	48	80 (average)	White board, computers, internet, phone, Centralized AC
06	Analytical equipment Lab I – VI	06	540	phone, computers, internet, AC
07	Computer Lab	02	80	phone, computers, internet, AC
08	Ultrapure (Milliipore) water Lab	01	50	AC

4. Major Equipment and Facilities acquired during 1 April 2019 – 31 March 2020:

- (1) Cryostream low temperature device with accessories for Single Crystal XRD
Make: Oxford, Model: 800 Series (*Status: Order placed*)
- (2) Refrigerated Centrifuge (02 Nos.)
Make: Eppendorf Model: 5910R (*Status: Functioning*)
- (3) Quaternary Gradient High Performance Liquid Chromatography,
Make: Agilent Model: 1260 Infinity II (*Status: Order to be placed*)
- (4) ICE FLAKER MACHINE
Make: SIMAG Model: SPR200 (*Status: Functioning*)

5. Major Areas of Research and Development:

The Department is engaged in various research and Development activities such as:

Catalysis, Supramolecular Chemistry, Nanoscale Science and Technology, Synthesis, structure and reactivity of Inorganics, Newer reagents, Protocols and Newer methodologies, Synthesis of natural products and Carbohydrate Chemistry, Bio-organic Chemistry, Bio-inorganic Chemistry and Co-ordination Chemistry & Organometallics, Chiral recognition using metal complex based host, Metal removal from wastewater using polymer based chelators, Polymer synthesis, Organic Photochemistry, Molecular dynamics, Quantum Molecular dynamics, Physical Chemistry – Spectroscopic and Theoretical investigations on Novel Materials, peptide chemistry, Development of new theoretical approaches to: Laser Assisted Control of Chemical Reactions, and, Resonances in Electron – Molecule Scattering, Biomimetic Chemistry and Chemical Biology, Computational Biophysics and Chemistry, Oxidation Catalysis, Molecular Magnetism, Synthesis of Single-Molecule Magnets (SMMs), MRI Contrast agents, Water Oxidation Chemistry, Experimental & Theoretical Physical Chemistry, Self-organization and Nonlinear dynamics, Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Supramolecular dynamic aggregates, peptides, lipids, Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS, Synthetic organic chemistry, Natural product synthesis with the emphasis of new synthetic methodology; development of new reactions, asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study, solar fuel from water, Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks (MOFs), Peptidomimetics: Synthesis, Conformation and Biological activity, Nanofluidics, Organometallic Chemistry and Catalysis, Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor, Organofluorine Chemistry etc.

6. Major initiatives and breakthrough in Research and Development during 1 April 2019 – 31 March 2020:

Major Initiatives in R&D:

Development of novel methods for the construction of diverse organic molecules those are of important in biological and medicinal sciences, Development of novel strategies for C-H activation for the regioselective carbon-carbon and carbon-heteroatom bonds formations, which are important in academia and chemical industries from both environmental and economic standpoint, Supramolecular chemistry of polypeptides which are important in drug delivery and nanotechnology, Design and development of novel approaches for the development drugs for misfolding diseases, such as Alzheimer's disease (AD) and Parkinson's disease etc. Development of atom economic routes for the construction of novel molecules which are important in pharmaceuticals, materials chemistry such as construction of devices etc.,

Breakthrough Innovations:

There are some salient research achievements observed in the ongoing research and development under institutional and sponsored research projects which has appeared in reputed peer-reviewed journals and newspapers recently in various fields of chemistry as mentioned below,

- Electro-kinetic streaming potential” to harvest energy from flowing tap water and “contrasting inter-facial activities” entailing different types of semiconducting materials to generate power from stagnant water,
- Water-repelling cotton for sustained drug release,
- Development of a low-cost, hand-held device for rapid detection of bacteria, bringing portable bacterial detection kits closer to reality etc.,

7. Research Projects:

(a) New Sponsored Projects (Total No:07)

Principal Investigator	Name of Project	Sponsoring Agency	Amount Sanctioned (Rs. In Lakh)	Co-Investigator	Duration
A. T. Khan	Synthesis of Heterocycles and Their Biological and Photo-Physical Studies	DST-CRG	59.43	-	3 years
A. K. Saikia	Synthesis of Heterocyclic Compounds via Activation of C-H, Allylic-OH and Alkynes by Organic and Metallic Reagents	CSIR	12.8	-	3 years
A. Bhunia, Bose Institute, Kolkata	Tailor Made Peptidomimetics Designing Against Human Islet Amyloid Polypeptide (hIAPP) Aggregation: A Therapeutic Approach Associated with Type-2 Diabetes	DBT	99.0	B. Mandal	3 years
C. V. Sastri	Chemical and Structural Intricacies in the Formation, Stability and Reactivity of Metal-Oxygen Adducts in Non-Heme Synthetic Scaffolds	DST-SERB	47.82	-	3 years
C. K. Jana	Metal Free Simultaneous C(sp ³)-H and C(sp ²)-H Functionalizations of Aliphatic Amines/Amino Acids and Nitrosoarenes to Indoles and Perophoramidine's Analogs	SERB	60.3	-	3 years
A. Kumar A. S	Design of Efficient, Recyclable and Sustainable Immobilised Molecular-Pincer Group (VIII) Metal Catalytic Systems for Fine Chemical Synthesis Via Direct Functionalisation of Carbon Dioxide	STARS-MHRD	49.92	-	3 years (2020-2023)
P. K. Kancharla	Synthesis of 1-C, 2-C, 3-C-Branched Pyranosides and Heptanosides, Higher-Carbon Sugars, L-Sugars and All the Epimers of Sialic acids and KDN Non-Ulosinic acids from Perlin Aldehydes	DST-EMR	46.80	-	3 years (2020-2023)

(b) Ongoing Sponsored Projects (Total No: 23)

Principal Investigator	Name of Project	Sponsoring Agency	Amount Sanctioned (Rs. In Lakh)	Co-Investigator	Duration
HoD	DST-FIST Project under level-II category	DST	550.00	-	5 years
	Advanced Materials and Molecules	MHRD	400.00	-	5 years
A. K. Saikia	Diastereo- and Enantio-selective Synthesis of Oxygen, Nitrogen and Sulfur Heterocyclic Compounds	SERB (DST)	50.00	-	3 years
S. Paul	Understanding the Inhibiting Actions of Different Inhibitors on the Aggregation of Human Amylin Peptide	SERB (DST)	45.21	-	3 years
C. V. Sastri	Bio Inspired green catalyst for water	DST-UKIERI	5.68	-	3 Years

& Prof. S. P. deVisser (Manchester university)	oxidation				
C. V. Sastri & Prof. Peter Comba (Heidelberg University)	Modulating the reactivity of high-valent nonheme transition metal oxidants by tuning ligand field enforced by substituted bispidine ligands	DST DAAD (Indo-German PPP)	8.90	-	3 Years
C. V. Sastri, Prof. G. Rajaraman (IITB), Prof. Peter Comba (H.U.) & Prof. K. Ray (Humboldt University)	Perspective of Fluctuations in Electron Transfer Reactions in Non-Heme Chemistry	SPARC (MHRD)	71.18	-	3 Years
C. Mukherjee	Synthesis and MR Image Investigation on MRI Contrast Agent-Entrapped Mesoporous Silica Nanoparticles	DBT	69.00	A. S. Achalkumar	2018-2021
A. S. Achalkumar	Molecular Engineering of Perylene for Energy Conversion	SERB (DST)	41.00	-	2019-2021
C. K. Jana	Synthesis and Biological Evaluation of Dysideanone and Its Synthetic Analogs for the Development of Potent and Selective Anti-Oral-Cancer Agents	DBT	44.10	-	2018-2021
S. C. Pan	Organocatalytic Asymmetric Kinetic Resolution for the Synthesis of Aziridines and Tetrahydropyrans	SERB (DST)	43.00	-	3 years
	Organocatalytic Asymmetric Reactions with 3-carbomethoxy-dihydro-2-quinolones	CSIR HRDG	12.00	-	3 years
	Novel Rationally Designed DNA Gyrase Inhibitors as Antibacterials	DBT	41.00	P. Satpati	3 years
L. M. Kundu	Development and evaluation of peptide conjugated antitumor drugs in combination with nucleobases deaminases for controlled and targeted drug delivery	DBT	70.00	R. Anand (IIT Bombay)	3 years
R. Tamuli (BSBE, IITG)	Understanding Molecular Mechanism of Calcium Signaling in Neurospora Crassa	DBT	84.53	M. Sarma	3 Years
U. Manna	Multilayer of Porous Micro-Capsules to Develop Robust Slippery Liquid-Infused Porous Surface (SLIPS)	BNRS	25.0	-	3 years
	"'Bulk' Superhydrophobic Polymer materials for controlled and Tunable release of Antimicrobial peptides: A novel material for generating antimicrobial Material"	DBT	42.14	S. Chatterjee	3 years
	Bio-mimicked Interface for Developing Smart and Reusable Chemical Sensors Using Liquid Crystal μ -Droplets	IIT Guwahati	10.00	-	1 year
K. P. Bhabak	Development of ROS-Sensitive Turn-on Fluorescent Probes for Targeted Delivery of Anti-cancer	SERB (DST)	53.04	-	2017-2021

	Compounds				
A. Das	Terminal Oxo and Imido Transition-Metal Complexes of Groups 11 (Cu, Ag, Au): Strategies for Sequential C-H Bond Activation and Functionalization, Carbon-Heteroatom (C-N and C-O) Bond-Forming Reactions and Group-transfer catalysis	DST-INSPIRE	35.00	-	6 years (2014-2020)
A. Kumar A. S	Fluorine and Boron Doped pi Conjugated Organic Materials Via Transition Metal Catalyzed C-F Activation	BRNS-DAE	19.98	-	2017-2020
	Fuel Chemical Synthesis Via Catalytic Transformation of Hydrocarbons Using Pincer-Ligated Complexes Based on Inexpensive Transition Metals	CSIR	6.00	-	2017-2020
	Greenhouse Gas to Fuel: Development of Powerful Catalytic Systems Based on Pincer-Metal Catalysts Heterogenized on Solid Supports for the Conversion of Carbon Dioxide to Methanol"	SERB-DST	38.80	-	2019-2022

c) Completed Sponsored Projects (Total No:16)

Principal Investigator	Name of Project	Sponsoring Agency	Amount Sanctioned (Rs. in Lakh)	Co-Investigator	Duration
S. Paul	The Role of Aqueous Solutions of Trimethylamine-N-Oxide (TMAO) on the Pressure Induced Hydrophobic Interactions and the Pressure Induced Hydrogen Bond Properties and Dynamics	DST	21.382	-	3 years
	Counteraction of Osmolyte Trimethylamine-N-Oxide on Pressure Induced and Urea Induced Denaturation of Proteins BPTI and Rnase A: Molecular Dynamics Simulation Study	CSIR	10.62	-	3 years
	The mechanism of bioprotective effect of trehalose through hydrophobic and hydrogen bonding interactions on peptide and polypeptide: A molecular dynamics simulation study	BRNS	24.245	D. Manna	3 years
	Effect of osmolytes urea and trimethylamine-N-oxide on hydrophobicity and protein folding/unfolding under confinement	DST	20.70	-	3 years
B. Mandal	Effect of naturally occurring as well as synthetic cyclic molecules on inhibition of beta amyloid aggregation in vivo and in vitro	DBT Twinning	72.0	A. C. Mondal, JNU	3 years
C. Mukherjee	Synthesis, Characterization and Utilization of Radical-Containing Transition metal Complexes for Mechanistic Understanding and Catalysis	SERB	48.4	-	3 years
D. Das	Bioinspired Semi-conductive Peptides: Self-assembly, Nano-structures and	SERB	49.0	-	3 years

	Application in Organic-Electronics				
D. Srimani	Integration of Photoredox catalysis with Chiral Bronsted Acids: Towards Enantioselective synthetic routes of versatile structural motifs.	DST-INSPIRE	35.0	-	5 years
	N-Heterocyclic Nitrenium Based Pincer Ligand and their Transition Metal Complexes: Exploring Potential Catalytic Application	DST-SERB, ECR	47.0	-	3 years
U. Manna	Stimuli Responsive Super hydrophobic Material for Triggered Drug Release	IIT Guwahati	5.00	-	2 years
	Physically and Chemically Durable "Bulk" Superhydrophobic Material: An Avenue for Smart Drug Delivery	DST	31.56	-	3 years
	Selective Absorption based Oil/Water Separation using durable super hydrophobic interfaces.	MRPL	68.58	-	1 year
	Bulk'-Superhydrophobic Polymer materials for controlled and Tunable release of Antimicrobial peptides: A novel material for generating antimicrobial Material	DBT	48.00	S. Chatterjee	3 years
A. Das	Incorporation of Pendant Lewis Pairs into Secondary Coordination Sphere of the Metal ions: Cooperative Substrate Binding and Activation	DST-SERB	46.2	-	3 years (2017-2020)
A. Kumar A.S.	Chiral and Achiral Hydro functionalization of Olefins Via Iron and Cobalt Catalyzed X-H (X = C and O) Activation Reactions: Access to High Value Fuels, Organic Materials and Commodity Chemicals	SERB-DST	23.1	-	2016-2019
P. K. Kancharla	Dissecting the mechanistic understanding of sialic acid glycosylations utilizing (R)-2-phenylcyanoethane as a novel multipurpose protecting group: Application towards the synthesis of Legionimic acid and its glycosides	DST-ECR	49.7	-	3 years

8. Consultancy (Total No:03)

Principal Investigator	Name of Project	Sponsoring Agency	Amount Sanctioned (Rs. in Lakh)	Co-Investigator	Duration
U. Manna	Oil Removing Membrane with Embedded Lotus Leaf Inspired Wettability	MRPL	68.58	-	1 year
	Synthesis of Scalable and Durable slippery Coatings	MRPL	92.04	-	1 year
A. Kumar A. S.	Catalytic Enhancement of Aromatic Yield	Reliance India Limited	17.70	-	1 year

9. Research Publications

International and National Journal (PERIOD: 1 APRIL 2019 – 31 MARCH 2020)

Total No. of International Journal: 202

Total No. of National Journal:02.....

Format for submission of Research Publications/Journals

Sl. No.	Authors	Paper Title	Journal Name	Year	Vol.	Issue No. (If any)	Starting Page	Ending Page
1	R. Brahma, J. B. Baruah	Self-Assemblies of Zinc Complexes for Aggregation-Induced Emission Luminogen Precursors	ACS Omega	2020	5	7	3774	3785
2	J. Nath, A. Tarai, J. B. Baruah	Copper(II), Zinc(II), and Cadmium(II) Formylbenzoate Complexes: Reactivity and Emission Properties	ACS Omega	2019	4	19	18444	18455
3	M. P. Singh, A. Tarai, J. B. Baruah	Neutral, Zwitterion, Ionic Forms of 5-Aminoisophthalic Acid in Cocrystals, Salts and Their Optical Properties	ChemistrySelect	2019	4	19	5427	5436
4	M. P. Singh, K. Shankar, J. B. Baruah	Study on the interactions of nitrophenols with bis-8-hydroxyquinolinium zinc-2,6-pyridinedicarboxylate	Inorganica Chimica Acta	2019	489		204	210
5	M. P. Singh, J. B. Baruah	Combinations of tautomeric forms and neutral-cationic forms in the cocrystals of sulfamethazine with carboxylic acids	ACS Omega	2019	4	7	11609	11620
6	R. Brahma, M. P. Singh, J. B. Baruah	Stacking among the clips of the poly-aromatic rings of phenazine with hydroxy-aromatics and photophysical properties	RSC Advances	2019	9	57	33403	33412
7	M. P. Singh, A. Tarai, J. B. Baruah	Photo-physical properties of salts of a di-topic imidazole-tethered anthracene derivative in solid and solution	CrystEngComm	2019	21	33	4898	4909
8	S. Pal, A. Dutta, M. Paul, A. Chattopadhyay	Plasmon Enhanced Chemical Reaction at the Hot-Spots of End-to-End Assembled Gold Nanorods.	Journal of Physical Chemistry C	2020	124		3204	3210
9	K. Gogoi, S. Pramanik, A. Chattopadhyay	Charge Transport Characteristics of Surface-Complexed Quantum Dot in a Thin Film Transistor	Advanced Materials Interfaces	2020	7	4	1901665	
10	M. Paul, S. Basu, A. Chattopadhyay	Complexation Reaction Based Two-Dimensional Luminescent Crystalline Assembly of Atomic Clusters for Recyclable Storage of Oxygen	Langmuir	2020	36	3	754	759
11	S. K. Sailapu, D. Dutta, A. T. Simon, S. S. Ghosh, A. Chattopadhyay	Smartphone Controlled Interactive Portable Device for Theranostics in Vitro	Biosensors and Bioelectronics	2019	146		111745	
12	M. Das, U. Goswami, S. Bhattacharyya, R. Kandimalla, A. Chattopadhyay, S. S. Ghosh	Integration of a Nonsteroidal Anti-Inflammatory Drug with Luminescent Copper for in Vivo Cancer Therapy in a Mouse Model	ACS Applied Bio Materials	2019	3	1	227	238
13	M. Das, U. Goswami, R. Kandimalla, S. Kalita, S. S. Ghosh, A. Chattopadhyay	Iron-Copper Bimetallic Nanocomposites Reinforced Dressing Materials for Infection Control and Healing of Diabetic Wound	ACS Applied Bio Materials	2019	2	12	5434	5445
14	A. Pal, A. Bhakat, A. Chattopadhyay	Zinc Ion Induced Assembly of Crystalline Carbon Dots with Excellent Supercapacitor Performance	Journal of Physical Chemistry C	2019	123	32	19421	19428
15	D. Dutta, S. K. Sailapu, A. T. Simon, S. S. Ghosh, A. Chattopadhyay	Gold-Nanocluster-Embedded Mucin Nanoparticles for Photodynamic Therapy and Bioimaging	Langmuir	2019	35	32	10475	10483
16	S. Bhandari, S. Roy, S. Pramanik, A. Chattopadhyay	Chemical Reactions Involving the Surface of Metal Chalcogenide Quantum Dots	Langmuir	2019	35	45	14399	14413
17	U. N. Pan, P. Sanpui, A. Paul, A. Chattopadhyay.	Protein-Nanoparticle Agglomerates as Plasmonic-Magneto-Luminescent Multifunctional Nanocarrier for Imaging and Combination Therapy.	ACS Applied Bio Materials	2019	2	8	3144	3152

18	S. Ali, R. Gattu, V. Singh, S. Mondal, A. T. Khan, G. Dubey, P. V. Bharatam	Reaction of Arylamines with Nitroalkenes in Presence of Bismuth(III) Triflate: Easy Access to 2,3-Dialkylquinolines	Organic and Bio-molecular Chemistry	2020	18		1785	1793
19	S. Rajamanickam, C. Sah, B. A. Mir, S. Ghosh, G. Sethi, V. Yadav, S. Venkataramani, B.K. Patel	Bu ₄ Ni-Catalyzed, Radical-Induced Regioselective N-Alkylations and Arylations of Tetrazoles Using Organic Peroxides/Peresters	Journal of Organic Chemistry	2020	85	4	2118	2141
20	A. Dahiya, A. K. Sahoo, T. Alam, B.K. Patel	tert-Butyl Nitrite (TBN), a Multitasking Reagent in Organic Synthesis	Chemistry - An Asian Journal	2019	14	24	4454	4492
21	P. Sau, A. Rakshit, T. Alam, H. K. Srivastava, B.K. Patel	Tert-Butyl Nitrite Mediated Synthesis of 1,2,4-Oxadiazol-5(4 H)-ones from Terminal Aryl Alkenes	Organic Letters	2019	21	13	4966	4970
22	G. Shukla, T. Alam, H. K. Srivastava, R. Kumar, B.K. Patel	Visible-Light-Mediated Ir(III)-Catalyzed Concomitant C3 Oxidation and C2 Amination of Indoles	Organic Letters	2019	21	10	3543	3547
23	A. Rakshit, P. Sau, S. Ghosh, B.K. Patel	One-Pot Sequential Synthesis of Fused Isoquinolines via Intramolecular Cyclization/Annulation and their Photophysical Investigation	Advanced Synthesis and Catalysis	2019	361	16	3824	3836
24	T. Sarkar, K. Talukdar, S. Roy, T. Punniyamurthy	Expedient iron-catalyzed stereospecific synthesis of triazines: Via cycloaddition of aziridines with diaziridines	Chemical Communications	2020	56	23	3381	3384
25	S. Pradhan, M. Mishra, P. B. De, S. Banerjee, T. Punniyamurthy	Weak Coordination Enabled Switchable C4-Alkenylation and Alkylation of Indoles with Allyl Alcohols	Organic Letters	2020	22	5	1720	1725
26	S. Banerjee, S. Vivek Kumar, T. Punniyamurthy	Site-selective rh-catalyzed c-7 and c-6 dual C-H functionalization of indolines: Synthesis of functionalized pyrrolocarbazoles	Journal of Organic Chemistry	2020	85	4	2793	2805
27	S. Pradhan, P.B. De, T. Punniyamurthy	Weak Coordination-Guided Regioselective Direct Redox-Neutral C4 Allylation of Indoles with Morita-Baylis-Hillman Adducts	Organic Letters	2019	21	24	9898	9903
28	T. A. Shah, P. B. De, S. Pradhan, S. Banerjee, T. Punniyamurthy	Cp*Co(III)-Catalyzed Regioselective C2 Amidation of Indoles Using Acyl Azides	Journal of Organic Chemistry	2019	84	24	16278	16285
29	T. A. Shah, P. B. De, S. Pradhan, S. Banerjee, T. Punniyamurthy	Exploiting Strained Rings in Chelation Guided C-H Functionalization: Integration of C-H Activation with Ring Cleavage	Chemistry - An Asian Journal	2019	14	24	4520	4533
30	S. Vivek Kumar, S. Banerjee, T. Punniyamurthy	Rh-Catalyzed C-C/C-N bond formation: Via C-H activation: Synthesis of 2 H-indazol-2-yl-benzo [a] carbazoles	Organic Chemistry Frontiers	2019	6	23	3885	3890
31	M. Vijay, S.V. Kumar, V. Sathesh, P. Ananthappan, H.K. Srivastava, S. Ellairaja, V. S. Vasantha, T. Punniyamurthy	Stereospecific Assembly of Fused Imidazolidines via Tandem Ring Opening/Oxidative Amination of Aziridines with Cyclic Secondary Amines Using Photoredox Catalysis	Organic Letters	2019	21	18	7649	7654
32	M. Mishra, P. B. De, S. Pradhan, T. Punniyamurthy	Stereospecific copper(II)-catalyzed tandem ring opening/oxidative alkylation of donor-acceptor cyclopropanes with hydrazones: Synthesis of tetrahydropyridazines	Journal of Organic Chemistry	2019	84	17	10901	10910
33	S. Kumar, S. Pradhan, S. Roy, P.B. De, T. Punniyamurthy	Iron-Catalyzed Regioselective Remote C(sp ²)-H Carboxylation of Naphthyl and Quinoline Amides	Journal of Organic Chemistry	2019	84	16	10481	10489

34	B. Ketan Das, S. Pradhan, T. Punniyamurthy	Stereospecific assembly of tetrahydroquinolines: Via tandem ring-opening/oxidative cyclization of donor-acceptor cyclopropanes with N -alkyl anilines	Chemical Communications	2019	55	56	8083	8086
35	C.R. Das, T. Dutta, M. Ray	Effect of ligand and bridge substitution on chiral recognition of 1-phenylethylammonium cation by an anionic binuclear Ni(II) complex	Inorganica Chimica Acta	2020	486		367	376
36	N. Renubala Devi, S. Shit, B. K. Behera, A. K. Saikia	Synthesis of 4-Vinyl-1,2,3,4-tetrahydroisoquinoline from N-Tethered Benzyl-Alkenol Catalyzed by Indium(III) Chloride: Formal Synthesis of (±)-Isocyclocelabenzene	Synthesis	2020	52	9	1425	1434
37	A. Kumari Sahu, R. Unnava, S. Shit, A. K. Saikia	In(OTf) ₃ -Catalyzed One-Pot Tandem Mannich and Conia-Ene Cyclization Reaction of N-Propargyl Amido Alcohols with 1,3-Dicarbonyl Compounds: An Approach To Construct Tetrahydro-1H-pyrrolo[2,1-a]isoindolone-1,1-dicarboxylate and Its Application	Journal of Organic Chemistry	2020	85	4	1961	1971
38	U. Borthakur, A. K Saikia	Bismuth(III)-Triflate-Catalyzed Highly Diastereoselective Synthesis of Substituted Tetrahydrothiophene via Tandem Isomerization, Michael and Aldol Reactions	Chemistry Select	2019	4	37	11136	11139
39	S. Shit, N. Devi, N. Renubala Devi, A. K. Saikia	Stereoselective synthesis of hexahydrofuro[3,4-b] furan-4-ol and its dimer via tandem Prins and pinacol rearrangement	Organic & Biomolecular Chemistry	2019	17		7398	7407
40	S. Mahata, A. Bhattacharya, J. P. Kumar, B. B. Mandal, V. Manivannan	Naked-Eye Detection of Pd ²⁺ Ion Using a Highly Selective Fluorescent Heterocyclic Probe by "Turn-Off" Response and in-vitro Live Cell Imaging	J. Photochemistry. Photobiology A: Chemistry	2020	394		112441	
41	J. Bori, S. Mahata, V. Manivannan	A New Route for the Synthesis of 2,4-Bis(2-pyridyl)-6-(pyridyl)pyrimidines: Synthesis and Characterization of Co(II), Ni(II) Complexes of 2,4,6-Tris(2-pyridyl)pyrimidine	Inorganica Chimica Acta	2020	506		119506	
42	A. Das, B. Nayak, G. Das	Effect of substitution on halide/hydrated halide binding: A case study of neutral bis-urea receptors	CrystEngComm	2020	22	12	2197	2207
43	P. Dey, G. Das, A. Ramesh	Interplay between Supramolecular and Coordination Interactions in Synthetic Amphiphiles: Triggering Metal Starvation and Anchorage onto MRSA Cell Surface	Langmuir	2020	36	8	2110	2119
44	A. Ghosh, G. Das	Green synthesis of a novel water-stable Sn(II)-TMA metal-organic framework (MOF): An efficient adsorbent for fluoride in aqueous medium in a wide pH range	New Journal of Chemistry	2020	44	4	1354	1361
45	R. Singh, G. Das	A Luminescent Probe for Ratiometric Optical Detection of Hg ^{II} and Turn-On Fluorescent Sensing of Cull	Chemistry - An Asian Journal	2019	14	24	4625	4630
46	S. Mukherjee, G. Das, A. Ramesh	Biocompatible nanocomposite tailored to endure the gastric niche renders effective in vitro elimination of intestinal pathogenic bacteria and supports adhesion by beneficial bacteria	ACS Applied Bio Materials	2019	2	8	3225	3233

47	P. Mullick, S. Mukherjee, G. Das, A. Ramesh	Generation of a Hydroxyapatite Nanocarrier through Biom mineralization Using Cell-Free Extract of Lactic Acid Bacteria for Antibiofilm Application	ACS Applied Bio Materials	2019	2	7	2927	2936
48	S. Halder, S. Samanta, G. Das	Exploring the potential of a urea derivative: An AIE-luminogen and its interaction with human serum albumin in aqueous medium	Analyst	2019	144	8	2696	2703
49	B. Nayak, S. Halder, G. Das	Terminal Substituent Induced Differential Anion Coordination and Self-Assembly: Case Study of Flexible Linear Bis-Urea Receptors	Crystal Growth and Design	2019	19	4	2298	2307
50	R. Singh, G. Das	Towards Fluorogenic and Chromogenic Sensing of Heavy Metal Ions in Aqueous Medium: A Mini-Review	Springer Proceedings in Physics	2019	236		57	65
51	S. Halder, U. Manna, G. Das	Tuning the aggregation performance by varying the substituent position: Comparative study of neutral bis-urea derivatives in aqueous medium	New Journal of Chemistry	2019	43	35	14112	14119
52	B. Nayak, S. Halder, S. De, G. Das	Binding consistency of anions by the effect of aromatic: Meta-substitution of bis-urea receptors: Entrapment of hexafluorosilicate clusters	CrystEngComm	2019	21	46	7172	7181
53	N. Borah, B. Nayak, A. Gogoi, G. Das	A benzimidazole-based non-symmetrical tripodal receptor for the ratiometric fluorescence sensing of fluoride ions and solid state recognition of sulfate ions	New Journal of Chemistry	2019	43	42	16497	16505
54	A. Mandal, A. Choudhury, S. Sau, P.K. Iyer, P. Mal	Exploring Ambipolar Semiconductor Nature of Binary and Ternary Charge-Transfer Cocrystals of Triphenylene, Pyrene, and TCNQ	Journal of Physical Chemistry C	2020	124	12	6544	6553
55	M. Adil Afroz, N. Ghimire, K.M. Reza, B. Bahrami, R.S. Bobba, A. Gurung, A.H. Chowdhury, P.K. Iyer, Q. Qiao	Thermal Stability and Performance Enhancement of Perovskite Solar Cells through Oxalic Acid-Induced Perovskite Formation	ACS Applied Energy Materials	2020	3	3	2432	2439
56	N. Zehra, A. Kalita, A.H. Malik, U. Barman, M. Adil Afroz, P.K. Iyer	Conjugated Polymer-Based Electrical Sensor for Ultratrace Vapor-Phase Detection of Nerve Agent Mimics	ACS Sensors	2020	5	1	191	198
57	A. Mandal, A. Choudhury, R. Kumar, P.K. Iyer, P. Mal	Exploring the semiconductor properties of a charge transfer cocrystal of 1-aminopyrene and TCNQ	CrystEngComm	2020	22	4	720	727
58	P.K. Iyer, K. Chatterjee	Biomaterials Research in India - An ACS Applied Bio Materials Forum	ACS Applied Bio Materials	2019	2	12	5216	5217
59	S. Mondal, V. Kumar, S. Roy Chowdhury, M. Shah, A. Gaur, S. Kumar, P.K. Iyer	Template-Mediated Detoxification of Low-Molecular-Weight Amyloid Oligomers and Regulation of Their Nucleation Pathway	ACS Applied Bio Materials	2019	2	12	5306	5312
60	M.N. Khatun, A.S. Tanwar, N. Meher, P.K. Iyer	An Unprecedented Blueshifted Naphthalimide AIEEgen for Ultrasensitive Detection of 4-Nitroaniline in Water via "Receptor-Free" IFE Mechanism	Chemistry - An Asian Journal	2019	14	24	4725	4731
61	M. Maharana, N. Baruah, S.K. Nayak, N. Meher, P.K. Iyer	Condition Assessment of Aged Ester-Based Nanofluid through Physicochemical and Spectroscopic Measurement	IEEE Transactions on Instrumentation and Measurement	2019	68	12	4853	4863

62	Afroz M.A., Gupta R.K., Garai R., Hossain M., Tripathi S.P., Iyer P.K.	Crystallization and grain growth regulation through Lewis acid-base adduct formation in hot cast perovskite-based solar cells	Organic Electronics	2019	74		172	178
63	A. Mandal, A. Choudhury, P.K. Iyer, P. Mal	Charge Transfer Versus Arene-Perfluoroarene Interactions in Modulation of Optical and Conductivity Properties in Cocrystals of 2,7-Di-tert-butylpyrene	Journal of Physical Chemistry C	2019	123	30	18198	18206
64	N. Meher, P.K. Iyer	Functional group engineering in naphthalimides: A conceptual insight to fine-tune the supramolecular self-assembly and condensed state luminescence	Nanoscale	2019	11	28	13233	13242
65	R. Ratha, A. Singh, M. A. Afroz, R.K. Gupta, M. Baumgarten, K. Müllen, P.K. Iyer	6,7-Di(thiophen-2-yl)naphtho[2,3-c][1,2,5]thiadiazole and 4,6,7,9-tetra(thiophen-2-yl)naphtho[2,3-c][1,2,5]thiadiazole as new acceptor units for D-A type co-polymer for polymer solar cells	Synthetic Metals	2019	252		113	121
66	S. Mondal, S. Roy Chowdhury, M. Shah, V. Kumar, S. Kumar, P.K. Iyer	Nanoparticle Assisted Regulation of Nucleation Pathway of Amyloid Tetramer and Inhibition of Their Fibrillation Kinetics	ACS Applied Bio Materials	2019	2	5	2137	2142
67	T. B. Raju, P. Gopikrishna, J. V. Vaghasiya, S.S. Soni, P.K. Iyer	The solvatochromism and aggregation-induced enhanced emission of triphenylamine substituted styrene derivatives and its application in dye sensitized solar cells	Journal of Photochemistry and Photobiology A: Chemistry	2019	376		12	21
68	R. Ratha, M.A. Afroz, R.K. Gupta, P.K. Iyer	Functionalizing benzothiadiazole with non-conjugating ester groups as side chains in a donor-acceptor polymer improves solar cell performance	New Journal of Chemistry	2019	43	10	4242	4252
69	A. Dey, A. Singh, D. Dutta, S.S. Ghosh, P.K. Iyer	Rapid and label-free bacteria detection using a hybrid tri-layer dielectric integrated n-type organic field effect transistor	Journal of Materials Chemistry A	2019	7	31	18330	18337
70	S. Basu, C. Gayen, S. Dolai, A. Paul	Tailoring the luminescence of atomic clusters via Ligand Exchange Reaction Mediated post synthetic modification	Physical Chemistry Chemical Physics	2020	22	7	3959	3964
71	S. Basu, W. Nawaj, C. Gayen, A. Paul	Photo induced chemical modification of surface ligands for aggregation and luminescence modulation of copper nanoclusters in presence of oxygen.	Physical Chemistry Chemical Physics	2019	21	39	21776	21781
72	C. Gayen, S. Basu, U. Goswami, A. Paul	Visible light excitation induced luminescence from gold nanoclusters following surface ligand complexation with Zn ²⁺ for day light sensing and cellular imaging	Langmuir	2019	35	27	9037	9043
73	C. Gayen, U. Goswami, K. Gogoi, S. Basu, A. Paul	Crystallization induced emission enhancement of nanoclusters and one step conversion of "nanoclusters to nanoparticles" as the basis for intracellular logic operations	ChemPhys Chem	2019	20	7	953	958
74	A. Bhatta, G. Krishnamoorthy, N. Marimuthu, A. Dihingia, P. Manna, H.T. Biswal, M. Das, G. Krishnamoorthy	Chlorin e6 decorated doxorubicin encapsulated chitosan nanoparticles for photo-controlled cancer drug delivery	International Journal of Biological Macromolecules	2019		136	951	961
75	M. Das, S. Sahu, G. Krishnamoorthy	Tweaking the proton transfer triggered proton transfer of 3,5-bis(2-hydroxyphenyl)-1H-1,2,4-triazole	Physical Chemistry Chemical Physics	2019	21	28	15669	15677

76	B. Mondal, D. Borah, R. Mazumdar, B. Mondal	Nitric Oxide Dioxygenase Activity of a Nitrosyl Complex of Mn(II)-Porphyrinate in the Presence of Superoxide: Formation of a Mn(IV)-oxo Species through a Putative Peroxynitrite Intermediate	Inorganic Chemistry	2019	58	21	14701	14707
77	S. Paul and S. Paul	Inhibitory Effect of Choline-O-Sulfate on the A β ₁₆₋₂₂ Peptide Aggregation : A Molecular Dynamics Simulation Study	Journal of Physical Chemistry B	2019	123	16	3475	3489
78	S. Paul and S. Paul	Molecular Dynamics Simulation Study on The Inhibitory Effects of Choline-O-sulfate on hAPP Protofibrillation	Journal of Computational Chemistry	2019	40	22	1957	1968
79	S. Pal and S. Paul	The Effect of Hydrated And Non-Hydrated Choline Chloride-Urea Deep Eutectic Solvent (Reline) on Thrombin Binding G-Quadruplex Aptamer (TBA): A Classical Molecular Dynamics Simulation Study	Journal of Physical Chemistry C	2019	123	18	11686	11698
80	K. G. Chattaraj and S. Paul	Underlying Mechanistic Insights of the Structural Properties of Melamine and Uric Acid Complex on the Compositional Variation at Ambient Conditions by Employing Classical Molecular Dynamics Simulation	Journal of Chemical Physics	2019	151		054503	054503-20
81	P.K. Naik, S. Paul and T. Banerjee	Thermal Hydrogenation and Degradation of Quinoline from Reactive Force Field Simulations	Chemistry Select	2019	4	44	12996	13005
82	K. G. Chattaraj and S. Paul	Inclusion of Theobromine Modifies Uric Acid Aggregation with Possible Changes in Melamine-Uric Acid Clusters Responsible for Kidney Stones	Journal of Physical Chemistry B	2019	123	49	10483	10504
83	S. Pal and S. Paul	ATP Controls the Aggregation of A β ₁₆₋₂₂ Peptides	Journal of Physical Chemistry B	2020	124	1	210	223
84	R. Paul and S. Paul	Computational Study of Encapsulation of Polyaromatic Hydrocarbons by Endo-Functionalized Receptors in Non-Polar Medium	Journal of Chemical Information and Modeling	2020	60	1	212	225
85	R. Paul and S. Paul	Tuning the Trapping of Epoxides by Endo-Functionalized Molecular Tubes in Aqueous Medium: A Computational Study	Journal of Physical Chemistry C	2020	124	6	3589	3600
86	K. G. Chattaraj, R. Paul and S. Paul	Switching of Self-Assembly to Solvent-Assisted Assembly of Molecular Motor: Unveiling the Mechanisms of Dynamic Control on Solvent Exchange	Langmuir	2020	36	7	1773	1792
87	S. Pal and S. Paul	Understanding The Role of Reline, a Natural DES, on Temperature-Induced Conformational Changes of C-Kit G-Quadruplex DNA: A Molecular Dynamics Study	Journal of Physical Chemistry B	2020	124	15	3123	3136
88	S. Alam, T.K. Sahu, D. Gogoi, N.R. Peela, M. Qureshi	Bio-template assisted hierarchical ZnO superstructures coupled with graphene quantum dots for enhanced water oxidation kinetics	Solar Energy	2020	199		39	46
89	S. Bhowmick, A. Dhankhar, T.K. Sahu, R. Jena, D. Gogoi, N.R. Peela, S. Ardo, M. Qureshi	Low Overpotential and Stable Electrocatalytic Oxygen Evolution Reaction Utilizing Doped Perovskite Oxide, La _{0.7} Sr _{0.3} MnO ₃ , Modified by Cobalt Phosphate	ACS Applied Energy Materials	2020	3	2	1279	1285

90	S. Alam, M.S. Ansari, A. Banik, R. Ali, S. Verma, M. Qureshi	Ultrasensitive NOX Detection in Simulated Exhaled Air: Enhanced Sensing via Alumina Modification of In-Situ Grown WO ₃ Nanoblocks	Chemistry - An Asian Journal	2019	14	24	4673	4680
91	G. Gogoi, C.T. Moi, A.S. Patra, D. Gogoi, P.N. Rao, M. Qureshi	A Z-Scheme Strategy that Utilizes ZnIn ₂ S ₄ and Hierarchical VS ₂ Microflowers with Improved Charge-Carrier Dynamics for Superior Photoelectrochemical Water Oxidation	Chemistry - An Asian Journal	2019	14	24	4607	4615
92	M.K. Mohanta, T.K. Sahu, D. Gogoi, N.R. Peela, M. Qureshi	Hexagonal Boron Nitride Quantum Dots as a Superior Hole Extractor for Efficient Charge Separation in WO ₃ -Based Photoelectrochemical Water Oxidation	ACS Applied Energy Materials	2019	2	10	7457	7466
93	A.S. Patra, M.S. Chauhan, S. Keene, G. Gogoi, K.A. Reddy, S. Ardo, D.L.V.K. Prasad, M. Qureshi	Combined Experimental and Theoretical Insights into the Synergistic Effect of Cerium Doping and Oxygen Vacancies in BaZrO ₃ Hollow Nanospheres for Efficient Photocatalytic Hydrogen Production	Journal of Physical Chemistry C	2019	123	1	233	249
94	T. K. Sahu, A.K. Shah, A. Banik, M. Qureshi	Enhanced Surface and Bulk Recombination Kinetics by Virtue of Sequential Metal and Nonmetal Incorporation in Hematite-Based Photoanode for Superior Photoelectrochemical Water Oxidation	ACS Applied Energy Materials	2019	2	6	4325	4334
95	M.S. Ansari, A. Banik, S. Alam, M. Qureshi	Combined effect of in-situ grown p-type CuSbS ₂ / n-type CdS coupled with hierarchical ZnO nano disks for improved photovoltaic light harvesting efficiency	Journal of Power Sources	2019	425		204	216
96	A. Banik, M.S. Ansari, M. Qureshi	Superior light harnessing and charge injection kinetics utilizing mirror-like nano cuboidal ceria coupled with reduced graphene oxide in zinc oxide nanoparticle based photovoltaics	Solar Energy	2019	185		89	99
97	C.T. Moi, G. Gogoi, T.K. Sahu, D. Gogoi, N.R., Peela, M. Qureshi	Design of noble metal free hierarchical VS ₂ onto WO ₃ nanoflakes as an effective heterojunction strategy for enhanced photoelectrochemical water oxidation	Sustainable Energy and Fuels	2019	3	12	3481	3488
98	A.K. Shah, T.K. Sahu, A. Banik, D. Gogoi, N.R., Peela, M. Qureshi	Reduced graphene oxide modified CuBi ₂ O ₄ as an efficient and noble metal free photocathode for superior photoelectrochemical hydrogen production	Sustainable Energy and Fuels	2019	3	6	1554	1561
99	S.S. Bag, A. Yashmeen	FRET events in fluorescent pentapeptides containing aliphatic triazolo amino acid scaffolds: Role of spacer lengths	Journal of Photochemistry and Photobiology A: Chemistry	2019	378		171	183
100	S.S. Bag, S.K. Das	Triazolyl C-nucleosides via the intermediacy of β -1'-ethynyl-2'-deoxyribose derived from a Nicholas reaction: Synthesis, photophysical properties and interaction with BSA	Tetrahedron	2019	75	22	3024	3037
101	V. Raturi, K. Abhishek, S. Jana, S.S. Bag, V. Trivedi	Virtual screening, molecular modelling and biochemical studies to exploit PF14_0660 as a target to identify novel anti-malarials	Letters in Drug Design and Discovery	2019	16	4	417	426
102	S. Kalita, S. Kalita, A. Paul, A. Sarkar and B. Mandal	Peptidomimetics prepared by tail-to-side chain one component peptide stapling inhibit Alzheimer's amyloid- β fibrillogenesis	Chemical Science	2020	11		4171	4179

103	T. Mondal and B. Mandal	Total degradation of extracellular amyloids by miniature artificial proteases	Chemical Communications	2020	56	15	2348	2351
104	R.S. Giri, S. Roy, G. Dolai, S.R. Manne, B. Mandal	FeCl ₃ -Mediated Boc Deprotection: Mild Facile Boc-Chemistry in Solution and on Resin	ChemistrySelect	2020	5	6	2050	2056
105	B. N. Ratha, R. K. Kar, S. Kalita, S. Kalita, S. Raha, A. Singha, K. Garai, B. Mandal, A. Bhunia	Sequence specificity of amylin-insulin interaction: a fragment-based insulin fibrillation inhibition study	Biochimica et Biophysica Acta (BBA)-Proteins and Proteomics	2019	1867	4	405	415
106	S. R. Manne, J. Chandra, B. Mandal	Synthesis of o-Nitroarylamines via Ipso Nucleophilic Substitution of Sulfonic Acids	Organic letters	2019	21	3	636	639
107	S. Kumar, S. Srivastav, M. Fatima, R.S. Giri, B. Mandal, A.C. Mondal	A Synthetic Pro-Drug Peptide Reverses Amyloid- β -Induced Toxicity in the Rat Model of Alzheimer's Disease	Journal of Alzheimer's Disease	2019	69	2	499	512
108	T. Mondal and B. Mandal	Engineered peptidic constructs metabolize amyloid β by self-assembly-driven reactions	Chem. Commun.	2019	55		4933	4936
109	R.S. Giri and B. Mandal	Formation of supramolecular single and double helix-like structures from designed tripeptides	CrystEngComm		21	37	5618	5625
110	R.S. Giri and B. Mandal	Unique crystallographic signatures of Boc-Gly-Phe-Phe-OMe and Boc-Gly-Phe-Phe-OMe and their self-association	CrystEngComm		21	2	236	243
111	C. Colombari, A.H. Tobing, G. Mukherjee, C.V. Sastri, A.B. Sorokin, S.P. de Visser	Mechanism of Oxidative Activation of Fluorinated Aromatic Compounds by N-Bridged Diiron-Phthalocyanine: What Determines the Reactivity?	Chemistry - A European Journal	2019	25	63	14320	14331
112	P. Barman, F.G. Cantú Reinhard, U.K. Bagha, D. Kumar, C.V. Sastri, S.P. de Visser	Hydrogen by Deuterium Substitution in an Aldehyde Tunes the Regioselectivity by a Nonheme Manganese(III)-Peroxo Complex	Angewandte Chemie International Edition	2019	58	31	10639	10643
113	G. Mukherjee, A. Alili, P. Barman, D. Kumar, C.V. Sastri, S.P. de Visser	Interplay Between Steric and Electronic Effects: A Joint Spectroscopy and Computational Study of Nonheme Iron(IV)-Oxo Complexes	Chemistry - A European Journal	2019	25	19	5086	5098
114	G. Mukherjee, F. G. Cantu Reinhard, U. Bagha, C. V. Sastri, S. P. de Visser	Sluggish Reactivity by a Nonheme Iron(IV)-tosylimido Complex as Compared to its Oxo Analogue	Dalton Transactions	2020	49		5921	5931
115	O. Biswas, N. Akhtar, Y. Vashi, A. Saha, V. Kumar, S. Pal, S. Kumar, D. Manna	Chloride Ion Transport by PITENINs across the Phospholipid Bilayers of Vesicles and Cells	ACS Applied Bio Materials	2020	3	2	935	944
116	S. Dey, A. Gupta, A. Saha, S. Pal, S. Kumar, D. Manna	Sunlight-Mediated Thiol-Ene/Yne Click Reaction: Synthesis and DNA Transfection Efficiency of New Cationic Lipids	ACS Omega	2020	5	1	735	750
117	S. Dey, A. Patel, K. Raina, N. Pradhan, O. Biswas, R.P. Thummer, D. Manna	A stimuli-responsive anticancer drug delivery system with inherent antibacterial activities	Chemical Communications	2020	56	11	1661	1664
118	A. Saha, N. Pradhan, S. Chatterjee, R.K. Singh, V. Trivedi, A. Bhattacharyya, D. Manna	Fatty-Amine-Conjugated Cationic Bovine Serum Albumin Nanoparticles for Target-Specific Hydrophobic Drug Delivery	ACS Applied Nano Materials	2019	2	6	3671	3683
119	A. Saha, N. Akhtar, V. Kumar, S. Kumar, H.K. Srivastava, S. Kumar, D. Manna	PH-Regulated anion transport activities of bis(iminourea) derivatives across the cell and vesicle membrane	Organic and Biomolecular Chemistry	2019	17	23	5779	5788

120	N. Akhtar, N. Pradhan, A. Saha, V. Kumar, O. Biswas, S. Dey, M. Shah, S. Kumar, D. Manna	Tuning the solubility of ionophores: Glutathione-mediated transport of chloride ions across hydrophobic membranes	Chemical Communications	2019	55	58	8482	8485
121	G. C. Paul, P. Sarkar, C. Mukherjee	Synthesis, characterization and study on the dissimilar reactivity of a Ni (II)-bis (iminosemiquinone) complex core to ligand-appended hemilabile-CH ₂ OH and-CH ₂ NH ₂ units	Inorg. Chim. Acta (Invited Article)	2019	502		119340	
122	M. Khannam, S. K. Sahoo and C. Mukherjee	Effect of Ligand Chirality and Hyperconjugation on the Thermodynamic Stability of a Tris(aquated) Gd ^{III} Complex: Synthesis, Characterization, and T ₁ -Weighted Phantom MR Image Study	European Journal of Inorganic Chemistry	2019			2518	2523
123	R. K. Gupta, A. Dey, A. Singh, P. K. Iyer and A. S. Achalkumar	Hetero Atom Bay-Annulated Perylene Bisimides: New Materials for Organic Field Effect Transistors	ACS Applied Electronic Materials	2019		1(9)	1959	1969
124	V.K. Vishwakarma, S. Nath, M. Gupta, J.-H. Jou, S.K. Pal, A.S. Achalkumar	Room temperature columnar self-assembly and acidochromism of Pyrazino[2,3-g]quinoxaline derivatives	ACS Applied Electronic Materials	2019	3	1(8)	1378	1386
125	S. Turlapati, B.N. Sunil, V. K. Vishwakarma, A.S. Achalkumar, G. Hegde	Influence of lateral methyl/chloro substituent on the liquid crystalline and photoswitching behaviour of bent-core mesogens bearing azobenzene wing: synthesis and characterization	New Journal of Chemistry	2020	44		5731	5738
126	A. Purkait and C.K. Jana	N-Aminations of Benzylamines and Alicyclic Amines with Nitrosoarenes to Hydrazones and Hydrazides	Synthesis	2019	51	13	2687	2696
127	S. Ghosh and C. K. Jana	Rapid access to cinnamamides and piper amides via three component coupling of arylaldehydes, amines, and Meldrum's acid	Green Chemistry 2019	2019	21	21	5803	5807
128	S. Ghosh and C. K. Jana	Metal free biomimetic deaminative direct C-C coupling of unprotected primary amines with active methylene compounds	Organic and Biomolecular Chemistry	2019	17	48	10153	10157
129	S. K. Roy, A. Purkait, S. M. Tarik Aziz, C. K. Jana	Acid mediated coupling of aliphatic amines and nitrosoarenes to indoles	Chemical Communications	2020	56	21	3167	3170
130	B. Pramanik, N. Singha, and D. Das	Sol-, Gel-, and Paper-Based Detection of Picric Acid at Femtogram Level by a Short Peptide Gelator.	ACS Applied Polymer Materials	2019	1		833	843
131	N. Singha, A. Srivastava, B. Pramanik, S. Ahmed, P. Dowari, S. Chowdhury, B. K. Das, A. Debnath, D. Das.	Unusual Confinement Property of a Water Insoluble Small Peptide Hydrogel.	Chemical Science	2019	10		5920	5928
132	M. Azharuddin, G.H. Zhu, D. Das, E. Ozgur, L. Uzun, A. P. F. Turner, H. K. Patra	A repertoire of biomedical applications of noble metal nanoparticles.	Chemical Communications	2019	55		6964	6996
133	A. Dasgupta and D. Das.	Peptide Amphiphiles: Self-Assembly to Applications	Langmuir		35		10704	10724
134	N. Singha, S. Neogi, B. Pramanik, S. Das, A. Dasgupta, R. Ghosh and D. Das	Ultra-Fast, Highly Sensitive and Selective Detection of p-Xylene at Room Temperature by Peptide-Hydrogel Based Composite	ACS Applied Polymer Materials	2019	1		2267	2272

135	W. M. Nau, K. Assaf and D. Das	Applications of Cucurbiturils in Medicinal Chemistry and Chemical Biology	Frontiers in Chemistry	2019	7		619	
136	N. Singha, B. K. Das, B. Pramanik, S. Das and D. Das	Freeze the dynamicity: Charge transfer complexation assisted control over reaction pathway	Chemical Science	2019	10		10035	10039
137	P. Dowari, S. Das, B. Pramanik, D. Das.	pH clock instructed transient supramolecular peptide amphiphile and its vesicular assembly.	Chemical Communications	2019	55		14119	14122
138	P. Dowari, B. Pramanik, D. Das	pH and Secondary Structure Instructed Aggregation to a Thixotropic Hydrogel by a Peptide Amphiphile	Bulletin of Materials Science	2020	43		70	
139	B. K. Das, B. Pramanik, S. Chowdhury, O. A. Scherman, D. Das	Light-triggered syneresis of a water insoluble peptide-hydrogel effectively removes small molecule waste contaminants	Chemical Communications	2020	56		3393	3396
140	C. Gharui, S. Prakash, D. Chopra, S. C. Pan	Organocatalytic asymmetric addition of thioglycolates to o-quinone methides: a route to 5-substituted-5H-benzoxathiepine-2(3H)-ones	Organic & Biomolecular Chemistry	2020	18		2828	2833
141	S. Mukhopadhyaya, C. Gharui, S. C. Pan	Applications of Bifunctional Organocatalysts on ortho-Quinone Methides	Asian Journal of Chemistry	2019	8	11	1970	1984
142	C. Parida, R. Maity, S.C. Sahoo, S.C. Pan	α -Nitro- α,β -Unsaturated Ketones: An Electrophilic Acyl Transfer Reagent in Catalytic Asymmetric Friedel-Crafts and Michael Reactions	Organic Letters	2019	21	17	6700	6704
143	B. Mondal, M. Balha, S. C. Pan	Organocatalytic asymmetric spirocyclization reactions of cyclic 2,4-dienones with cyanoketones: synthesis of spiro-dihydropyrano cyclohexanones	Organic & Biomolecular Chemistry	2019	17		7849	7853
144	S.C. Sahoo and S.C. Pan	Synthesis of N-Formyl-2-benzoyl Benzothiazolines, 2-Substituted Benzothiazoles, and Symmetrical Disulfides from N-Phenacylbenzothiazolium Bromides	Organic Letters	2019	21	16	6208	6212
145	M. Balha, B. Mondal and S.C. Pan	Organocatalytic asymmetric synthesis of dihydrofuran-spirooxindoles from benzylidene malononitriles and dioxindoles	Organic & Biomolecular Chemistry	2019	17		6557	6561
146	C. Gharui and S.C. Pan	Employment of α -nitroketones in organic synthesis	Organic & Biomolecular Chemistry	2019	17		5190	5211
147	A. Rana and M. Sarma	Computational Investigation of Dissociative Electron Attachment to Ammonia	Journal of Indian Chemical Society	2019	96		785	791
148	S. Das, H. Horo, U. Goswami, L.M. Kundu	Synthesis of a Peptide Conjugated 5-Fluorouracil Gelator Prodrug for Photo-Controlled Release of the Antitumor Agent	Chemistry Select	2019	4	22	6778	6783
149	S. Das, K. Verma, V. K. Dubey and L. M. Kundu	Fabrication of nanoparticles from a synthesized peptide amphiphile as a versatile therapeutic cargo for high antiproliferative activity in tumor cells	Bio-organic Chemistry	2020	94		103440	

150	H. Horo, S. Das, B. Mandal and L. M. Kundu	Development of a photoresponsive chitosan conjugated prodrug nano-carrier for controlled delivery of antitumor drug 5-fluorouracil	International Journal of Biological Macromolecules	2019	121		1070	1076
151	D. Singha, D.K. Sahu, K. Sahu	Probing the interfacial transition of acetonitrile/AOT/n-heptane microemulsion through in situ silver colloid synthesis	Colloids and Surfaces A	2019	574		171	177
152	P. Biswas, D.K. Sahu, K. Sahu, R. Banerjee	Spectroscopic Studies of Asparaginyl-tRNA Synthetase from Entamoeba histolytica	Protein & Peptide Letters	2019	26		435	448
153	A. Mukhopadhyay, K. Jana, T. Hossen, K. Sahu, J.N. Moorthy	Coumarin-Annulated Regioisomeric Heptahelicenes: Influence of Helicity on Excited-State Properties and Chiroptical Properties	Journal of Organic Chemistry	2019	84		10658	10668
154	T. Hossen and K. Sahu	Photo-induced Electron Transfer or Proton-Coupled Electron Transfer in Methylbipyridine/Phenol Complexes: A Time-Dependent Density Functional Theory Investigation	Journal of Physical Chemistry A	2019	123		8122	8129
155	T. Pal and K. Sahu	Anomalous Variation of Excited-State Proton Transfer Dynamics inside a Triblock Copolymer-Cationic Surfactant Mixed Micelle	Journal of Physical Chemistry B	2019	123		8559	8568
156	T. Hossen and K. Sahu	Effect of Photoacid Strength on Fluorescence Modulation of 2-Naphthol Derivatives inside β -Cyclodextrin Cavity: Insights from Fluorescence, Isothermal Calorimetry, and Molecular Dynamics Simulations	Journal of Physical Chemistry B	2019	123		9291	9301
157	D.K. Sahu, P. Sarkar, D. Singha, K. Sahu	Protein-activated transformation of silver nanoparticles into blue and red-emitting nanoclusters	RSC Advances	2019	9		39405	39409
158	A. Das, N. Anbu, M. Sk, A. Dhakshinamoorthy, S. Biswas	Influence of Hydrogen Bond Donating Sites in UiO-66 Metal-Organic Framework for Highly Regioselective Methanolysis of Epoxides	ChemCatChem	2020	12	6	1789	1798
159	A. Das, N. Anbu, H. Reinsch, A. Dhakshinamoorthy, S. Biswas	A Thiophene-2-carboxamide-Functionalized Zr(IV) Organic Framework as a Prolific and Recyclable Heterogeneous Catalyst for Regioselective Ring Opening of Epoxides	Inorganic Chemistry	2019	58	24	16581	16591
160	A. Das, N. Anbu, A. Dhakshinamoorthy, S. Biswas	A highly catalytically active Hf(IV) metal-organic framework for Knoevenagel condensation	Microporous and Mesoporous Materials	2019	284		459	467
161	R. Dalapati, S. Biswas	A Pyrene-Functionalized Metal-Organic Framework for Nonenzymatic and Ratiometric Detection of Uric Acid in Biological Fluid via Conformational Change	Inorganic Chemistry	2019	58	9	5654	5663
162	A. Das, N. Anbu, M. Sk, A. Dhakshinamoorthy, S. Biswas	Highly Active Urea-Functionalized Zr(IV)-UiO-67 Metal-Organic Framework as Hydrogen Bonding Heterogeneous Catalyst for Friedel-Crafts Alkylation	Inorganic Chemistry	2019	58	8	5163	5172
163	R. Dalapati, S. Biswas	Aqueous Phase Sensing of Fe ³⁺ and Ascorbic Acid by a Metal-Organic Framework and Its Implication in the Construction of Multiple Logic Gates	Chemistry - An Asian Journal	2019	14	16	2822	2830

164	S. Nandi, S. Biswas	A recyclable post-synthetically modified Al(III) based metal-organic framework for fast and selective fluorogenic recognition of bilirubin in human biofluids	Dalton Transactions	2019	48	25	9266	9275
165	C. Gogoi, H. Reinsch, S. Biswas	A pyrazine core-based luminescent Zr(IV) organic framework for specific sensing of Fe ³⁺ , picric acid and Cr ^{2O7} -	CrystEngComm	2019	21	41	6252	6260
166	C. Gogoi, M. Yousufuddin, S. Biswas	A new 3D luminescent Zn(II)-organic framework containing a quinoline-2,6-dicarboxylate linker for the highly selective sensing of Fe(III) ions	Dalton Transactions	2019	48	5	1766	1773
167	R. Dalapati, S. Nandi, K. Van Hecke, S. Biswas	Fluorescence Modulation of an Aggregation-Induced Emission Active Ligand via Rigidification in a Coordination Polymer and Its Application in Singlet Oxygen Sensing	Crystal Growth and Design	2019	19	11	6388	6397
168	A. Das, S. Das, V. Trivedi, S. Biswas	A dual functional MOF-based fluorescent sensor for intracellular phosphate and extracellular 4-nitrobenzaldehyde	Dalton Transactions	2019	48	4	1332	1343
169	A. Das, N. Anbu, M. Sk, A. Dhakshinamoorthy, S. Biswas	A functionalized UiO-66 MOF for turn-on fluorescence sensing of superoxide in water and efficient catalysis for Knoevenagel condensation	Dalton Transactions	2019	48	46	17371	17380
170	M. Sk, M.R.U.Z. Khan, A. Das, S. Nandi, V. Trivedi, S. Biswas	A phthalimide-functionalized UiO-66 metal-organic framework for the fluorogenic detection of hydrazine in live cells	Dalton Transactions	2019	48	33	12615	12621
171	R.J. Das, K. Mahata	Mutualistic Benefit in the Self-sorted Co-aggregates of peri-Naphthoindigo and a 4-Amino-1,8-Naphthalimide Derivative	Soft Materials	2019	15		5282	5286
172	R. Gogoi, A. B. Neog, N. Sarmah, K. Raidongia	Preparation of responsive bilayer membrane through morphological tuning of nano-scale building blocks.	Journal of material chemistry A	2019	7	37	21157	21167
173	J. Deka, K. Saha, T. J. Konch, R. Gogoi, S. Saikia, P. P. Saikia, G.K. Dutta, K. Raidongia	Reconstruction of soil components into multi-functional freestanding membranes	ACS omega	2019	4	1	1292	1299
174	T. J. Konch, A. P. Bora and K. Raidongia	Disposable fluidic devices of bio-nanochannels for enzymatic monitoring and energy harvesting	ACS applied bio materials	2019	2	6	2549	2556
175	N. Deka, J. Barman, J. Deka, K. Raidongia, G.K. Dutta	Micro-porous organic polymer-derived nitrogen doped porous carbon spheres for efficient capacitive energy storage.	Chem electro chem	2019	6	13	3327	3336
176	K. Saha, J. Deka, K. Raidongia	Energy from the nanofluidic transport of water through nanochannels between packed silica spheres.	ACS applied Nano materials	2019	2	9	5850	5856
177	J. Deka, K. Saha, S. Kumar, H. K. Srivastava, K. Raidongia	Electrical power generation from the contrasting interfacial activities of boron- and nitrogen- doped reduced grapheme oxide membrane.	ACS applied Nano materials	2019	12	12	7997	8004
178	N. Biswas, K. Das, B. Sardar, D. Srimani	Acceptorless Dehydrogenative Construction of C=N and C=C Bonds through Catalytic Aza-Wittig and Wittig Reactions in the Presence of an Air-stable Ruthenium Pincer Complex	Dalton Transactions	2019	48		6501	6512

179	K. Das, A. Mondal, D. Pal, H. K. Srivastava, D. Srimani	Phosphine-Free Well-Defined Mn(I) Complex-Catalyzed Synthesis of Amine, Imine, and 2,3-Dihydro-1H-perimidine via Hydrogen Autotransfer or Acceptorless Dehydrogenative Coupling of Amine and Alcohol	Organometallics	2019	38	8	1815	1825
180	K. Das, A. Mondal, D. Pal, D. Srimani	Sustainable Synthesis of Quinazoline and 2-Aminoquinoline via Dehydrogenative Coupling of 2-Aminobenzyl Alcohol and Nitrile Catalyzed by Phosphine-Free Manganese Pincer Complex	Organic Letters	2019	21	9	3223	3227
181	P. Daw, A. Kumar, D. Oren, N. Angel Espinosa-Jalapa, D. Srimani, Y. Diskin-Posner, G. Leitun, L. J. W. Shimon, R. Carmieli, Y. Ben-David, and D. Milstein	Redox Noninnocent Nature of Acridine-Based Pincer Complexes of 3d Metals and C-C Bond Formation	Organometallics	2020	39	2	279	2851
182	A. Shome, A.M. Rather, A. Ghosal, B.K. Bhunia, B.B. Mandal, U. Manna	Rational Chemical Engineering in Natural Protein Derived Functional Interface	ACS Sustainable Chemistry and Engineering	2019	7	8	7502	7509
183	A. Das, D. Parbat, A. Shome, U. Manna	Sustainable Biomimicked Oil/Water Wettability That Performs Under Severe Challenges	ACS Sustainable Chemistry and Engineering	2019	7	13	11350	11359
184	U. Baruah, A. Das, U.Manna	Synthesis of Dual-Functional and Robust Underwater Superoleophobic Interfaces	ACS Applied Materials & Interfaces	2019	11	31	28571	28581
185	Supriya Das, Avijit Das, Dibyangana Parbat and Uttam Manna*	Catalyst-Free and Rapid Chemical Approach for In-situ Growth of 'Chemically Reactive' and Porous Polymeric Coating	ACS Applied Materials & Interfaces	2019	11	37	34316	34329
186	A. Shome, K. Maji, A. M. Rather, A. Yashwanth, D.K. Patel, U. Manna	A Scalable Chemical Approach for Synthesis of Highly Tolerant and Efficient Oil-Absorbent	Chemistry - An Asian Journal	2019	14	24	4732	4740
187	D. Parbat, A. Das, K. Maji, U. Manna	Hydrophobicity or Superhydrophobicity - Which is Right Choice for Stabilizing Underwater Superoleophilicity?	Journal of Materials Chemistry A	2020	8	1	97	106
188	S. Das, R. Kumar, D. Parbat, S. Sekula-Neuner, M. Hirtz, U. Manna	Covalently Modulated and Transiently Visible Writing: Rational Association of Two Extremes of Water Wettabilities	ACS Applied Materials & Interfaces	2020	12	2	2935	2943
189	K. Maji, A. Das, M. Hirtz, U. Manna	How Does Chemistry Influence Liquid Wettability on Liquid Infused Porous Surface?	ACS Applied Materials & Interfaces	2020	12	12	14531	14541
190	A. Saha, B. Rattan, S. Sekharan, U. Manna	Quantifying the interactive effect of water absorbing polymer (WAP)-soil texture on plant available water content and irrigation frequency	Geoderma	2020	368		1	15
191	G. Pandit, K. Biswas, S. Ghosh, S. Debnath, A. P Bidkar, P. Satpati, A. Bhunia, S. Chatterjee	Rationally designed antimicrobial peptides: Insight into the mechanism of eleven residue peptides against microbial infections	BBA Biomembranes	2020	1862		183177	183189
192	M. Chetia, S Debnath, S. Chowdhuri, S. Chatterjee	Self-assembly and multifunctionality of peptide organogels: oil spill recovery, dye absorption and synthesis of conducting biomaterials	RSC advance	2020	10		5220	5233
193	D. Bhattacharjee, A. Sufian, S.K. Mahato, S. Begum, K. Banerjee, S. De, H.K. Srivastava, K.P. Bhabak	Trisulfides over disulfides: highly selectivesynthetic strategies, anti-proliferative activitiesand sustained H2S release profiles	Chemical Communications	2019	55		13534	13537

194	N. Malviya, C. Sonkar, R. Ganguly, D. Bhattacharjee, K.P. Bhabak, S. Mukhopadhyay	Novel Approach to Generate Self-Deliverable Anticancer Ru(II) agent in the Self-Reacting Confined Gel Space	ACS Applied and Materials Interfaces	2019	11	50	47606	47618
195	B. K. Sarmah, M. Konwar, D. Bhattacharyya, P. Adhikari, A. Das	Regioselective Cyanation of Six-Membered N-Heteroaromatic Compounds Under Metal-, Activator-, Base- and Solvent-Free-Conditions	Advanced Synthesis and Catalysis	2019	361	24	5616	5625
196	D. Bhattacharyya, S. Nandi, P. Adhikari, B. K. Sarmah, M. Konwar, A. Das	Boric acid catalyzed chemoselective reduction of quinolines	Organic and Biomolecular Chemistry	2020	18		1214	1220
197	K. Das, M. Dutta, B. Das, H. K. Srivastava, A. Kumar	Efficient Pincer Ruthenium Catalysts for Kharasch Addition of Carbon Tetrachloride to Styrene	Advanced Synthesis and Catalysis	2019	361		2965	2980
198	K. Das, P. G. Nandi, K. Islam, H. K. Srivastava, A. Kumar	N-Alkylation of Amines Catalyzed by a Ruthenium-Pincer Complex in the Presence of in situ Generated Sodium Alkoxide	European Journal of Organic Chemistry	2019	40		6855	6866
199	N.R. Peela, S.K. Yedla, B. Velaga, A. Kumar, A.K. Golder	Choline chloride functionalized zeolites for the conversion of biomass derivatives to 5-hydroxymethylfurfural	Applied Catalysis A, General	2019	580		59	70
200	A. Mukherji, P.K. Kancharla	C-H...Anion Interactions Assisted Addition of Water to Glycals by Sterically Hindered 2,4,6-Tri-tert-butylpyridinium Hydrochloride	Organic Letters	2020	22	6	2191	2195
201	S. Halder, R.B. Addanki, P.K. Kancharla	Three-step synthesis of protected L-altriose from D-galactose derived Perlin aldehyde	Journal of the Indian Chemical Society	2020	97	2	243	250
202	T. Ghosh, A. Mukherji, P.K. Kancharla	Sterically Hindered 2,4,6-Tri-tert-butylpyridinium Salts as Single Hydrogen Bond Donors for Highly Stereoselective Glycosylation Reactions of Glycals	Organic Letters	2019	21	10	3490	3495
203	N. J. Pawar, W. Lei, T. Higo, C. Bhattacharya, P. K. Kancharla, F. Zhang, K. Baryal, C-X. Huo, J. Liu, R. J. Linhardt, X. Huang, L. C. Hsieh-Wilson,.	Expedient Synthesis of Core Disaccharide Building Blocks from Natural Polysaccharides for Heparan Sulfate Oligosaccharide Assembly	Angewandte Chemie International Edition	2019	58	51	18577	18583
204	T. Ghosh, A. Mukherji, P.K. Kancharla	Open-Close Strategy toward the Organocatalytic Generation of 2-Deoxyribosyl Oxocarbenium Ions: Pyrrolidine-Salt-Catalyzed Synthesis of 2-Deoxyribofuranosides	European Journal of Organic Chemistry	2019	2019	45	7488	7498

Conference/Workshop/Seminar/Symposia (PERIOD: 1 APRIL 2019 – 31 MARCH 2020)

Total No. of papers published in Conference Proceedings:19.....

Format for submission of papers published in Conference Proceedings

Sl. No.	Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year	Starting Page	Ending Page
1	T. Mondal and B. Mandal	Engineered peptides for total degradation of Amyloid	International Symposium on Pathomechanisms of Amyloid Diseases, USA	2019	106	107
2	B. Mandal	Controlling amyloid aggregation by engineered peptides	ANNUAL WINTER MEETING 2019, BSBE, IITK	2019	24	25

3	S. Kalita, S. Kalita, A. Paul and B. Mandal	Inhibition of Amylin Aggregation by Single Point Mutation of hIAPP at Different Positions	7th Indian Peptide Symposium (IPS)	2019	41	41
4	S. Kalita, S. Kalita and B. Mandal	Tail-to-Side Chain Cyclic Peptides synthesized via Incorporation of Dicarboxylic Acids at the N-Terminus Exhibits Inhibitory Efficacy of Alzheimers Amyloid- β ($A\beta$ 1-40) Fibrils	7th Indian Peptide Symposium (IPS)	2019	OPA-5	OPA-5
5	R. S. Giri and B. Mandal	Supramolecular Self-association of Two Different Tripeptides: Crystallographic Insights	Regional Seminar on SCIENCE FOR SUSTAINABLE DEVELOPMENT (SSD-62019)	2019	50	50
6	C. Mukherjee	Biomimetic and Catalytic Activities by Transition Metal Complexes of Non-Innocent Ligands	19 th International Conference on Biological Inorganic Chemistry	2019		
7	D. Das	Supramolecular Aggregates: The Surprise Continues	NATCOSEB XIX Amity University, Kolkata	2019		
8	B. K. Das, B. Pramanik and D. Das	Light triggered syneresis of a water insoluble supramolecular peptide-hydrogel	NATCOSEB XIX Amity University, Kolkata	2019		
9	D. Das	Supramolecular aggregates of small molecules as Chemosensors: some new and few old revisited	TSRP-2020 BARC	2020		
10	M. Sarma	Theoretical Chemistry: An Interplay between Structure and Dynamics	Emerging Trends in Chemical Sciences (ETCS) 2020, February 13-15, 2020, Gauhati University, Guwahati, India	2020		
11	H. P. Bhattacharyya and M. Sarma	Efficiency of a Photocatalyst: Computational Investigation	Recent Advances in Chemistry (RAC) 2019, October 14-15, 2019, NIT Meghalaya, Shillong, India	2019		
12	H. K. Singh and M. Sarma	DFT Studies on the Interaction between the Ditopic Receptor and Benzene Metabolites	Recent Advances in Chemistry (RAC) 2019, October 14-15, 2019, NIT Meghalaya, Shillong, India	2019		
13	M. Sarma	Theoretical Chemistry: An Interplay between Structure and Dynamics	Recent Advances in Chemistry (RAC) 2019, October 14-15, 2019, NIT Meghalaya, Shillong, India	2019		
14	H. P. Bhattacharyya	Theoretical Investigation of Efficiency of a Photo	Mechanistic Processes in Organometallic Chemistry	2019		

	and M. Sarma	Catalyst in Water Splitting	Faraday Discussion, September 02 – 04, 2019, University of York, United Kingdom			
15	V. Arora, M. Dutta, K. Das, B. Das, H. K. Srivastava, A. Kumar	Poster presentation “Pincer-Nickel Catalyzed N-Alkylation and Catalytic Dehydrogenative Coupling Reaction”	26 th CRSI National Symposium in Chemistry, VIT, Vellore. February 2020	2020		
16	K. Das, P. G. Nandi, K. I. Islam, H. K. Srivastava, A. Kumar	Poster presentation titled “Solvent-Free and Efficient Pincer-Ruthenium Catalytic Systems for N-Alkylation of Amines Promoted by a Base Generated In- Situ from Alcohol”	Modern Trends in Inorganic Chemistry MTIC-XVIII, IIT Guwahati, Guwahati. December 2019	2019		
17	V. Arora, M. Dutta, K. Das, B. Das, H. K. Srivastava, A. Kumar	Poster presentation titled “Highly Efficient Pincer-Nickel Complex for Solvent-Free Catalytic N-Alkylation and Catalytic Dehydrogenative Coupling Reaction”	Modern Trends in Inorganic Chemistry MTIC-XVIII, IIT Guwahati, Guwahati. December 2019	2019		
18	K. Das, A. Kelkar, H. K. Srivastava, A. Kumar	Poster presentation titled “Rational Design of Pincer-Metal Complexes For Catalytic Functionalization of Carbon Dioxide”	19 th National Workshop on Catalysis-2019, IIT Delhi, May 2019 “ <i>Special Poster Award</i> ”	2019		
19	M. Dutta, K. Das, B. Das, H. K. Srivastava, A. Kumar	“Highly Efficient Pincer Ruthenium Catalysts for Atom Transfer Radical Additions”	19 th National Workshop on Catalysis-2019, IIT Delhi, May 2019	2019		

Book, Book Chapter, etc. (PERIOD: 1 APRIL 2019 – 31 MARCH 2020)

Total No. of Books published:

Total No. of Book Chapters published:

Format for submission of Book

Sl. No.	Name of Author/s	Name of Book	Publisher	Volume and Issue No. (If any)	Total Page No.	ISBN	Year of Publication
1	A. Srivastava and C. K. Jana	Heterocycles via Cross Dehydrogenative Coupling: synthesis and functionalization	Springer			978-981-13-9143-9	2019

Format for submission of Book Chapter, etc.

Sl. No.	Name of Author/s	Name of Paper	Name of Book	Publisher	Volume and Issue No. (If any)	Page No.	ISBN	Year and Date of Publication
1	S. C. Pan and M. Balha	Organocatalytic Asymmetric Synthesis of Spiroacetals and Bridged Acetals	Fundamental and Prospects of Catalysis	Bentham				In press
2	N. Jana, D. Parbat	Superhydrophobic Interfaces for High-	Materials Horizons:	Advances in		411-457		2019

	and U. Manna	Performance/Advanced Application	From Nature to Nanomaterials	Sustainable Polymers				
3	K. Das and A. Kumar AS		Advances in Organometallic Chemistry	Science Direct	72	1-57		2019

10. Conferences/Workshops/Symposia Attended: International, National

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
S. Paul	CECAM50 (Molecular and materials simulation at the turn of the decade: Celebrating 50 years of CECAM)	EPFL, Lausanne, Switzerland	9-12 September, 2019	International
	DAE Computational Chemistry Symposium (DAE-CCS-2019)	BARC, Mumbai, India	7-9 November, 2019	National
C. V. Sastri	DST DAAD Program	Heidelberg University	Feb, 2020	International
C. Mukherjee	19 th International Conference on Biological Inorganic Chemistry	Switzerland	11-16 August, 2019	International
A. S. Achalkumar	Advances in Chemical and Materials Science (ICMM-2019)	Mangalore University	17-19 October 2019	International
	Emerging Trends in Liquid Crystal Research	CeNS, Bangalore	15 October 2019	International
	ICANN 2019	IIT Guwahati, Guwahati-39	18-21 December 2019	International
D. Das	NATCOSEB XIX	Kolkata	17 October 2019	National
	TSRP-2020	BARC	08 January 2020	International
S. C. Pan	International Conference on Chemistry for Human Development	Kolkata	9-11 Jan, 2020	International
	International Conference on Organometallics and Catalysis	Goa	7-10 March, 2020	International
M. Sarma	Mechanistic Processes in Organometallic Chemistry Faraday Discussion	University of York, United Kingdom	September 02 – 04, 2019	International
	Spectroscopy and Dynamics of Molecules and Clusters (SDMC) 2020	Kumbhalgarh, Rajasthan, India	February 20 – 23, 2020	National
	International Conference on Spectroscopy and Dynamics of Molecular and Condensed Matter Systems (ICSD) 2020	Puri, Odisha, India	March 01 – 04, 2020	International
U. Manna	INT Seminar	Karlsruhe Institute of Technology, Germany	July, 2019	International
	Recent Advances in Chemistry (RAC)	NIT Meghalaya	October 14-15, 2019	National
	Chemical Science in India: Leaders in the Field Symposium	IISER Kolkata	October 18-20, 2019	International
U. Manna	International Conference on Advanced Nanomaterials and Nanotechnology	IIT Guwahati	December 18-21, 2019	International
	International Conference on Functional Materials	IIT Kharagpur	January 06-08, 2020	International
Akshai	ICANN 2019	IIT Guwahati	December	International

Kumar A S			2019	
	MTIC XVIII	IIT Guwahati	December 2019	International
	19 th National Workshop on Catalysis-2019	IIT Delhi	May 2019	National
	International Conference on Advances in Chemical and Materials Science (ICCM-2019)	Mangalore University, Mangalore, INDIA	October 2019	International
	RSC Roadshow	IIT Guwahati	November 2019	International

11. Invited Lectures of Faculty: In India, Abroad (Please do not repeat entries from Sl. No. 10)

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
T. Punniyamurthy	Stereoselective Carbon-Carbon and Carbon-Heteroatom Bond Formation: Application to Medicinally Important Heterocyclic Scaffolds	University of Kolkata <i>Conference: ICCHD-2020</i>	Kolkata, India	January 9-10, 2020
	Regioselective Carbon-Carbon and Carbon-Heteroatom Bond Formation: Synthesis of Medicinally Important Heterocyclic Scaffolds	Indian Science Congress, Agricultural University	Bangalore, India	January 5-7, 2020
	Regioselective C-H Bond Functionalization: A Roadmap to Heterocycle Synthesis	BITS	Pilani, India	December 15, 2019
	150 th Year of Periodic Table	Bhattadev University	Bajali, India	October 26, 2019
	Carbon-Carbon and Carbon-Heteroatom Bond Formation	Organic Chemistry Symposium	Lucknow, India	September 15, 2019
	Regioselective Carbon-Heteroatom Bond Formation	National Conference OMSRI, IIT Roorkee	Roorkee, India	February 10, 2019
	Regioselective Carbon-Carbon and Carbon-Heteroatom Bond Formation	Emerging Trends in Chemistry, IIT Indore	Indore, India	July 12-15, 2019
A. K. Saikia	Stereoselective Synthesis of Heterocyclic Compounds	Indian Chemical Society, Kolkata	Pt. Ravishankar Shukla University, Raipur, Chhattisgarh	15 November, 2019
	Stereoselective Synthesis of Heterocyclic Compounds with Special Emphasis on Bioactive Molecules	Gauhati University	Gauhati University Guwahati	15 February, 2020
B. Mandal	Engineered peptides for total degradation of Amyloid	University of Miami	Miami, USA	18-20 December, 2019
	Controlling amyloid aggregation by engineered peptides	BSBE, IIT Kanpur	Kanpur	6-8 December, 2019
	Drug discovery and design	Chemistry Department, North Bengal University	West Bengal	28 August, 2019
	Solid phase peptide synthesis			29 August, 2019
C. K. Jana	C-H Functionalization Enabled Multicomponent Reactions (CH-MCR) Anilines	Kaleidoscope	Goa	July, 2019
	Nature-Inspired Development of Unnatural Meroterpenoids as Promising Anti-colon Cancer Agents	INCD	IIT Guwahati	September, 2019
	Iminium- Activated C-H	NOST OCC	Udaipur	December,

	Functionalization of Amines			2019
S. C. Pan	Metal Free Synthesis of Cyclic Molecules	NISER	Bhubaneswar	12 July, 2019
M. Sarma	Invited Lecture at Department of Chemical Sciences, Tezpur University, Assam, India	Tezpur University, Assam, India	Tezpur, Assam, India	June 08, 2019
	Invited cum Popular Lecture at Saraighat College, Changsari, Assam, India	Saraighat College, Assam, India	Changsari, Assam, India	July 26, 2019
	Invited cum Popular Lecture at Science Camp for Higher Secondary Students, IIT Guwahati, Guwahati, India	IIT Guwahati, Guwahati, Assam, India	Guwahati, Assam, India	August 13, 2019
	Invited Lecture at Recent Advances in Chemistry (RAC) 2019	National Institute of Technology Meghalaya, Shillong, India	Shillong, Meghalaya, India	October 14 – 15, 2019
M. Sarma	Invited cum Popular Lecture at Science Camp for Higher Secondary Students, IIT Guwahati, Guwahati, India	IIT Guwahati, Guwahati, Assam, India	Guwahati, Assam, India	November 08, 2019
	Invited Lecture at Emerging Trends in Chemical Sciences (ETCS) 2020	Gauhati University, Guwahati, India	Guwahati, Assam, India	February 13 – 15, 2020
D. Srimani	Application of Acceptorless Dehydrogenation and Hydrogen Auto-transfer in Sustainable Synthesis	St Gregorios College, Kottarakara <i>Conference name:</i> “Green Approaches towards Chemical Synthesis” GACS2019	Kerala	November 8, 2019
S. Chatterjee	Rational Design of Small Antimicrobial Peptides and their Mechanism of Action	Madurai Kamraj University, Indian Peptide society	Madurai	February 19-20, 2020
Akshai Kumar A S	“Pincer Complexes in Catalytic Conversions: Synthesis of Fuel and Value-Added Chemicals ”	ICANN 2019	IIT Guwahati, Guwahati, INDIA	December 2019
	“Pincer-Metal Complexes in Catalytic Conversions: Synthesis of High Value Fuels and Commodity Chemicals”	Modern Trends in Inorganic Chemistry MTIC-XVIII,		
	“Pincer-Metal Complexes in Catalytic Conversions: Synthesis of High Value Fuels and Commodity Chemicals”	IPC Department	IISc, Bangalore, INDIA	October 2019
	“Efficient Pincer-Ruthenium Catalytic Systems for Dehydrogenation and Related Reactions”	International Conference on Advances in Chemical and Materials Science (ICCM-2019)	Mangalore University, Mangalore, INDIA	October 2019
	“Metal Carbonyls”	St. Aloysius College	Mangalore, INDIA	October 2019

12. Visitors From Other Institutes / Universities / Organisations / Invited Lectures
(Only distinguished visitors invited by appropriate authority)

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date	Remarks
Prof Uttam Tambar	UT Southwestern, USA	Stereoselective Functionalization of Unsaturated Hydrocarbons	5 th -7 th March 2020	
Prof Stellios Arseniyadis	Queen Mary University, London, UK	From organometallic catalysis to bio-hybrid catalysis: Some recent results from the group	do	
Prof. Uday Maitra	IISc Bangalore	Bile Salt derived Metallohydrogels and		

		their Applications	03/03/2020	
Prof. Sundarababu Baskaran	IIT Madras	Novel Oxidative Cyclization of Carbanion: Stereoselective Synthesis of Heterocyclic Ring Systems	21/02/2020	
Prof. Tushar Kanti Chakraborty	IISc Bangalore	Radical cyclization as a key step in the synthesis of terpenoid natural products	12/05/2020	
Prof. Michael Schmittel	University of Siegen, Germany	Communicating Systems (Molecular Cybernetics): Networking Molecular Devices for Catalysis and Information Handling	10/12/2019	
Dr Nabanita Deb	Weizmann Institute of Science, Israel	Cold Chemistry with Cold Atoms/ Molecules	25/10/2019	
Prof. Suresh Valiyaveeti	National University of Singapore	Optical properties of perylene encapsulated silica and polymer nanoparticles	21/10/2019	
Dr Arjun Saha	University of California Los Angeles, USA	Development and Application of QM Methods for Large Molecular Systems and its Future in Drug Discovery	21/10/2019	
Prof. Hirtz	KIT, Germany	Departmental Talk	28/10/2019	
Prof. Vinod K Tiwari	Banaras Hindu University	Click Inspired Facile Synthesis of Diverse Glycodendrimers and their Therapeutic Potential	17/10/2019	
Dr. Pawan Kumar	University of Alberta, Canada	Bandgap tuned 2D graphenic semiconductors for photoreduction of CO ₂ to solar fuels and energy applications	15/10/2019	
Prof. Priyadarsi De	IISER-Kolkata	Sequence Controlled Alternating Copolymers	22/08/2019	
Dr. Srinivas Dharavath	McMaster University, Hamilton, Canada	Synthesis of New Green High Energy Density Materials With Fine-tuned Properties	19/07/2019	
Prof. Patrick Y. S. Lam	Baruch S. Blumberg Institute	Departmental Talk	30/05/2019	
Prof. Peter Comba	Heidelberg University	Part of SPARC and DST DAAD program	Aug-Sep 2019	
Prof. Kallol Ray	Humboldt University	Part of SPARC (MHRD) program	Oct-Nov 2019	

13. Seminars/Workshops/Conferences/Short-Term Courses Organised

Sl. No.	Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem. /Wor./Con.	Funded By	Date	International/ National	No. of participants
1	G. Das	Modern Trends In Chemistry (MTIC)	RSC, ACS, Bruker, Metrohm, Orbit technologies pvt. Ltd., TechRVL, Labguard, Inkarp, General Electric, AB chemical & Instruments etc.	11- 14 December, 2019	International	650
2	A. Kumar A.S.	RSC Roadshow 2019	RSC	6 November 2019	International	400

A brief report on the major NATIONAL and INTERNATIONAL events with photographs may also be given separately in addition to the format given above.

14. Patents:

No. of Patents Applied with details03.....

No. of Patents Granted with details 01.....

Sl. No.	Name of Faculty and co researcher	Name	Date Applied/Granted	Application No.	Remarks
1	B. Mandal and T.	Design and Development	23 Jan, 2019	20193100277	Applied

	Mondal	of Functional Mimics of α -Secretase and their Application in Drug Design against Amyloidoses			
2	B. Mandal and J. Chandra	A method for preparation of sulphonates of alcohol, oxime-o-sulphonates and their derivatives	31 Jul, 2019	317283	Granted
3	C. K. Jana and S. Ghosh	A one step process for synthesis of cinnamamides and piper amides	20 September, 2019	201931038052	Applied
4	U. Manna, V. Nandakumar, Karthick R, A. Das, K. Maji, A. Shome	A process for preparation of a super hydrophobic membrane	7 February, 2020	202041005525	Applied

15. Awards and honours:

- Prof. A. Chattopadhyaya was awarded (a) J. C. Bose Fellowship 2020 (SERB), (b) Invited to join the Editorial Advisory Board of the Journal of Materials Chemistry A (Royal Society of Chemistry), (c) Elected to be the Fellow of the Indian National Science Academy (2020),
- Prof. S. C. Pan selected as Fellow of the Indian Chemical Society.
- Dr. M. Sarma selected as Member of the Royal Society of Chemistry (MRSC), April 2019
- Dr. U. Manna received (i) Bilateral Exchange of Academics Award by DAAD (2019), (ii) INSA-Young Scientist Award (2019), (iii) Merck Young Scientist Award (Runner-up) in Chemical Science (2019) and (iv) Emerging Investigators by Chemical Communication (2020).
- Dr. Akshai Kumar A. S. selected as Member- American Chemical Society in 2019.

16. Students' Achievements:

- Dr. Rumi Khandelia (Supervisor – A. Chattopadhyaya) selected for Marie Curie Fellowship,
- Dr. Srestha Basu (Supervisor – A. Paul) selected for JSPS Fellowship,
- Ms. Srijita Paul (Supervisor – S. Paul) received the best poster award in Research Conclave 2019,
- Ms. Dibyangana (Supervisor – U. Manna) Parbat got best poster presentation in REFLUX 7.0 conference-2019, IIT Guwahati,
- Ms. Arpita Shome (Supervisor – U. Manna) got best oral presentation in REFLUX 7.0 conference-2019, IIT Guwahati,
- Ms. Supriya Das (Supervisor – U. Manna) got best poster award in RAC 2019 conference, NIT Meghalaya,
- Ms. Arpita Shome got best poster in International Conference on Advanced Nanomaterials and Nanotechnology, 2019, IIT Guwahati,
- Ms. Arpita Shome got best oral presentation in National Conference on Issues and Challenges in Water Treatment and Allied Research for Sustainable Environment (WATER 2020) organized by Centre for the Environment, IIT Guwahati,
- Ms. Arpita Shome has been selected for the AWSAR-DST BEST stories Award 2019 for her science story "Cotton-the Trivialized Treasure",
- Mr. Kanu Das (Supervisor- Akshai Kumar A.S.) received Special poster award during 19th National Workshop on Catalysis-2019, IIT Delhi, May 2019,
- Mr. Chandrakanta Parida (Supervisor – S. C. Pan) got best poster award in ICCHD 2020 held in Kolkata 9-11 Jan, 2020.
- Mr. Gourab Mukherjee (Supervisor - C. V. Sastri) visited to Manchester University during July-September 2019 as a part of DST UKIERI,

(m) Mr. Sayanta Sekhar Nag (Supervisor - C. V. Sastri) to Heidelberg university Aug-Oct 2019 as a part of DST DAAD and SPARC.

17. Any Other (Special Mention)

Some research work has been highlighted/reported in different news papers,

<https://www.thehindu.com/news/national/other-states/iit-g-offers-new-tech-to-tap-energy-from-water/article30435707.ece>

<https://thenortheasttoday.com/iit-guwahati-builds-hand-held-device-to-detect-bacteria/>

<https://www.thehindu.com/sci-tech/science/iit-guwahati-uses-water-repelling-cotton-for-sustained-drug-release/article28109995.ece>

18. Faculty Members (In alphabetical order according to surname)

Sr. No.	Name	Name of the University/Institute/Org PhD degree received from	Designation	Areas of Interest	Date of joining (Not Internal Promotion) for the faculty members who joined during the reporting year
01	Achalkumar A.S.	Ph.D. (CSMR, Bangalore)	Professor	Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Green Chemistry	
02	Akshai Kumar A. S.	Ph.D. (IISc Bangalore)	Assistant Professor	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation	
03	Bag Subhendu Sekhar	Ph.D. (IIT Kharagpur)	Professor	Bioorganic Chemistry and Chemistry of Unnatural Nucleic Acid and Peptides	
04	Baruah, Jubaraj B.	Ph.D. (IISc Bangalore)	Professor	Homogeneous Catalysis, Supramolecular chemistry and material design	
05	Bhabak, Krishna Pada	Ph.D. (IISc Bangalore)	Assistant Professor	Organic and Bio-organic Chemistry	
06	Biswas, Shyam Prosad	Ph.D. (Ulm University, Germany)	Associate Professor	Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks	
07	Chattopadhyay, Arun	Ph.D. (Columbia University)	Professor	Nanoscale Science and Technology	
08	Chatterjee Sunanda	Ph.D. (IISc Bangalore)	Assistant Professor	Peptide Chemistry, Supramolecular Chemistry, Antimicrobial peptide research, Peptidomimetic chemistry	
09	Das, Animesh	Ph.D. (University of Goettingen, Germany)	Assistant Professor	Organometallic chemistry and catalysis	
10	Das, Debapratim	Ph.D. (IACS, Kolkata)	Professor	Supramolecular dynamic aggregates, peptides, lipids	

11	Das, Gopal	Ph.D. (IIT Kanpur)	Professor	Supramolecular, Bioorganic chemistry and Biom mineralization
12	Dutta, Sumana	Ph.D. (IACS, Kolkata)	Associate Professor	Experimental & Theoretical Physical Chemistry / Self-organization and Nonlinear dynamics
13	Gupta, Ashish K.	Ph.D. (Univ. of California, Los Angeles)	Professor	Quantum Molecular Dynamics
14	Iyer, Parasmeswar K.	Ph.D. (CSMCRI, Bhavnagar)	Professor	Polymer synthesis, Organic / Organometallic Chemistry & Device fabrication, Sensors
15	Jana, Chandan K.	Ph.D. (WWU Muenster, Germany)	Professor	Total Synthesis/ Natural Product Based Drug Discovery/ Synthetic Methodology/ Development of New Reaction
16	Kancharla, Pavan K.	Ph.D. (IIT Kanpur)	Assistant Professor	Organic Chemistry, Carbohydrate Chemistry, Development of Synthetic Methodology, Organocatalysis.
17	Khan, Abu Taleb	Ph.D. (Kalyani University, W.B)	Professor	Synthesis of Natural Products, Heterocycles and Carbohydrate Chemistry, Newer Methodologies
18	Krishnamoorthy, G.	Ph.D. (IIT Kanpur)	Professor	Organic Photochemistry & Spectroscopy
19	Kundu, Lal Mohan	Ph.D. (LMU Munich, Germany)	Associate Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
20	Mahata Kingsuk	Ph.D (University of Siegen, Germany)	Associate Professor	Solar Fuel from Water, Supramolecular Catalysis, Theranostic Nano-Medicine
21	Manivannan, V.	Ph.D. (IACS, Calcutta)	Professor	Coordination Chemistry
22	Mandal, Bhubaneswar	Ph.D. (EPFL, Lausanne, Switzerland)	Professor	Peptide Chemistry and Amyloid Research
23	Manna, Debasis	Ph.D. (University of Illinois at Chicago)	Professor	Lipid-Protein Interaction, Lipid Synthesis
24	Manna, Uttam	Ph.D. (IISc, Bangalore)	Associate Professor	Bio-Inspired Polymeric Materials.
25	Mondal, Biplab	Ph.D. (IIT Bombay)	Professor	Coordination and Bioinorganic Chemistry
26	Mukherjee, Chandan	Ph.D. (Max-Planck Institute of Bioinorganic Chemistry, Muelheim, Germany)	Professor	Oxidation Catalysis / Molecular Magnetism / Synthesis of Single-Molecule Magnets (SMMs) / MRI Contrast agents / Water Oxidation Chemistry
27	Pan, Subhas Chandra	Ph.D. (Max-Planck-Institut fuer Kohlenforschung, Muelheim an der	Professor	Synthetic organic chemistry: Natural product synthesis with the

		Ruhr, Germany)		emphasis of new synthetic methodology; development of asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study	
28	Panda, Aditya N.	Ph.D. (IIT Kanpur)	Professor	Dynamics of bimolecular scattering processes	
29	Patel, Bhisma K.	Ph. D. (IIT Kanpur)	Professor	Bio-Organic Chemistry and Newer Methodologies	
30	Paul, Anumita	Ph.D. (Columbia University)	Professor	Surface Science, Catalysis, Thin Films	
31	Paul, Sandip	Ph.D. (IIT Kanpur)	Professor	Computational Biophysics and Chemistry	
32	Punniyamurthy, T.	Ph.D. (IIT Kanpur)	Professor	Synthetic Organic Chemistry	
33	Qureshi, Mohd	Ph.D. (IIT Kanpur)	Professor	Materials Chemistry	
34	Ray, Manabendra	Ph.D. (IIT Kanpur)	Professor	Bioinorganic and Coordination chemistry	
35	Raidongia, Kalyan	Ph.D. (JNCASR)	Associate Professor	Physical Chemistry	
36	Sahu, Kalyanasis	Ph.D. (IACS, Kolkata)	Associate Professor	Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS	
37	Saikia, Anil Kr.	Ph.D. (RRL Jorhat)	Professor	New Synthetic Methodology & Natural Product Synthesis	
38	Sastri, Chivukula V	Ph.D. (University of Hyderabad)	Professor	Biomimetic Chemistry and Chemical Biology	
39	Sarma, Manabendra	Ph.D. (IIT Bombay)	Associate Professor	Development of new theoretical approaches to Laser Assisted Control of Chemical Reactions, and Resonances in Electron – Molecule Scattering Reactions	
40	Srimani, Dipankar	Ph.D (IACS, Jadavpur)	Associate Professor	Organic, Organonometallic Chemistry	