# 2 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, November 05, 2023 1:00 PM - 3:00 PM				
Regency Ballroom R/S, Hyatt Regency Orlando				
BOARD NUMBER	Title	First Name	Last Name	Paper Number
21	Machine Learning Based Meta-Analysis of the Association between HLA-Peptide Binding Interactions and HLA-Linked Disease Susceptibility	Hyeju	Song	2b
22	Sustainable Wastewater Treatment Technology: Application of Bio-Electrochemical Membrane Process	Maryam	Amouamouha	2c
23	Designing Colloidal Particles for Complex Self-Assembly Behavior	Hillary	Pan	2d
24	Computational Assessment of Catalytic Materials	Alexander	Hoffman	2e
25	Tracking the Dynamics of Metal Nanomaterial to Improve Catalyst Design for Sustainable Fuel Production	Johanna	Schroeder	2f
26	Developing Nanoscale Tools to Advance Maternal, Fetal, and Neonatal Health	Andrea	Joseph	2g
27	A Facile Structural Engineering of Metal-Organic Frameworks for Enhanced Gas Separation Performance	Heseong	An	2h
28	Metabolic Engineering to Produce Gene Therapies and Therapeutic Biomolecules	Miguel	Santoscoy	2i
29	Multi-Scale Disease Profiling Using Molecularly Programmable Tools	Shih-Ting (christine)	Wang	2j
30	High Density Soft Electronic Fibers	Muhammad	Khatib	2l
31	Application of Quantum Materials in Dynamic Catalysis	Richard	Tran	2m
32	Advancing Biomass As Renewable Energy: Investigating Syngas Inhibition, Reaction Rate, and Reactor Simulation for Enhanced Hydrogen Production Via Steam Gasification	Jieun	Kim	2n
33	Nano Biomanufacturing for Medicine and the Environment	Navid	Bizmark	2o
34	3D Printing across Length Scales and Material Classes for Energy, Environmental, and Health Applications	Max	Saccone	2p
35	Development of Multi-Functional Materials for a Defossilized Carbon Economy	Chae	Jeong-Potter	2q
36	Precise Manufacturing of Advanced Materials Driven By Atomic Scale Characterization	Prashant	Kumar	2s
37	Protein- and Virus-Based Materials for Environmental and Agricultural Applications	Adam	Caparco	2t
38	Engineering Diagnostics for Mental Health Monitoring	Marjon	Zamani	2u
39	Hit the Lights: Developing Multiplex, Multichromatic Optogenetic Circuits for Cell Signaling and Tissue Engineering Applications	James	Tang	2v
40	Development of Computational Tools for Peptoid Structure-Property Prediction	Rakshit	Jain	2w
41	Mesoscale Self-Organization of Biomolecular Condensates	Sam	Wilken	2x
42	Enhancing the Sustainability of Produced Water Treatment: Integrated EC-MF-Mdc System for Membrane Distillation with Crystallization	Chidambaram	Thamaraiselvan	2y
43	Sustainable Polymeric Membranes for Molecular Separation- Greener Approach Towards Net Zero Emission	Lakshmeesha	Upadhyaya	2z
44	Architecting Functional Colloidal Materials *Via* Non-Equilibrium Interfacial Assembly	Pavel	Shapturenka	2aa
45	Belowground Carbon Farming: Engineering Genetic Circuits in Plant Roots and Rhizobacteria for Soil Carbon Sequestration	Christopher	Dundas	2ab
46	Utilization of Renewable Energy Resources for New Energy Technologies: The Development of Cost-Effective and Stable Electro-Catalysts for Energy Conversion and Storage.	Syed Asad	Abbas	2ac
47	Molecular Engineering of Reactive Electrochemical Interfaces	Weilai	Yu	2ad
48	*Antibody-Conjugated Polymers and Nanoparticles for Targeted Chemo- and Immuno-Therapies*	Bin	Liu	2ae
49	Active Site Design That Traverses Catalytic Contexts	Joy	Zeng	2af

BOARD NUMBER	Title	First Name	Last Name	Paper Number
50	Advancing Materials Synthesis and Printing Technologies for Next-Generation Applications	Shalinee	Kavadiya	2ag
51	Monitoring Boron Concentration in Qatar Seawater and Its Impact on Desalination Processes	Mosab	Subeh	2ah
52	Engineering Biochemical Processes in Plant-Microbe Interactions for Sustainable Agriculture	Kong	Wong	2ai
53	Sustainable Chemistry with Machine Learning and Multi-Scale Simulations	Aditya Dilip	Lele	2aj
54	Cellular Control of Cu(I)-Catalyzed Alkyne-Azide Cycloaddition (CuAAC) Via Extracellular Electron Transfer in Complex Environments	Gina	Partipilo	2ak
55	Transport-Directed Electrosynthesis for Decarbonization of Chemical Manufacturing	Justin	Bui	2al
56	Understanding Heterogenous Catalysis Via Multiscale Kinetic Simulation	Chuhong	Lin	2am
57	Designing Membrane Systems for the Direct Separation of Multicomponent Organic Solvent Mixtures	Hyeokjun	Seo	2an
58	Optimal Design of Soft Matter Via Simulation, Machine Learning and Large Language Models	Jiale	Shi	2ao
59	Biofuels, Biolubricants, and Biomaterials from Biomass and Energy-Efficient Ultrasonic Separation for the Sustainability and Decarbonization	Junli	Liu	2ap
60	Accurate Computational Design of Programmable 3D Protein Crystals and Capsids	Shunzhi	Wang	2aq
61	Understanding and Controlling the Surface Physics and Chemistry of Complex Oxides	Abhinav	S. Raman	2ar
62	Carbon Capture and Utilization Using Non-Equilibrium Plasmas	Hongtao	Zhong	2as
63	Accelerated Materials Design and Discovery Using Self-Driving Laboratories.	Kiran	Vaddi	2at
64	Pressing Play on Self-Assembled Biomaterials	Shayna	Hilburg	2au
65	Understanding Nanostructured Materials for High Catalytic Activities in Biosensors, Anti-Bacterial Activity, and Batteries	Anuja	Tripathi	2av
66	Developing Computational Tools for *in silico* elucidation of Cancer Mechanisms, Microenvironment, and Drug Repositioning Candidates	Wheaton	Schroeder	2aw
67	Multiscale Molecular Modeling in Porous Materials: A Comprehensive Approach Towards Accurate Predictions and Real Applications	Filip	Formalik	2ax
68	Sustainable Catalysis for Carbon Waste Valorization: Integrating System and Molecular-Level Approaches	Houqian	Li	2ay
69	Atomically Thin Membrane for Energy-Efficient Separation	Shiqi	Huang	2az
70	Sustainable Chemical Manufacturing, Decarbonization, and Waste Management	Sean	Najmi	2ba
71	Synthesis, Characterization, and Analysis of Non-Linear Polymers for Medicine	Zixian	Cui	2bb
72	Physics-Based and AI-Driven Design of Functional Soft Materials	Riccardo	Alessandri	2bc
73	Designing Advanced Separation Processes for Critical Materials and Discovering Porous Membrane Materials for Sustainable Energy Applications	Xiaoyu	Wang	2bd
74	Multiscale Computational Design of Polymeric Materials for Sustainability and Healthcare	Heyi	Liang	2be
75	Developing Workflows to Understand and Design Complex Alloy Catalysts Using Density Functional Theory, Machine Learning, and Catalysis First-Principles	Gaurav	Deshmukh	2bf
76	Computation and Theory-Guided Materials Discovery and Design for CO2 Capture, Utilization, and Storage	Bohak	Yoon	2bg
77	Alkalide-Assisted Direct Electron Injection for the Noninvasive n-Type Doping of Graphene	Sanghwan	Park	2bh

BOARD NUMBER	Title	First Name	Last Name	Paper Number
78	Extremophile Stress Proteins for Engineering Novel Properties in Living Cells and Biomaterials	Samuel	Lim	2bi
79	Solar Thermochemical Fuel Production	Remo	Schäppi	2bk
80	Bridging the Gap between Structure & Function for Sustainable Carbonaceous Systems: An Analytical Multi-Scale Approach	Heather	LeClerc	2bl
81	Advancements in Nanoengineering: Colloidal Soft Materials & Advanced Coatings for Energy and Bio-Applications	Shuhao	Liu	2bm
82	A Data-Driven Approach to Materials Development for Emerging Separations Challenges	Matthew	Rivera	2bo
83	Accelerating Transport Efficiency Via Active Motion: From Fundamentals to Practical Applications	Haichao	Wu	2bp
84	From Molecular Design to Macroscopic Properties: Interfacing Principles of Materials Chemistry, Molecular Self-Assembly, and Polymer Science for Sustainability	Ty	Christoff-Tempesta	2bq
85	Modeling, Control and Optimization	Paulina	Quintanilla	2br
86	Exploiting Microbial Communities through Systems Biology and Synthetic Biology	Yiyi	Liu	2bs
87	Penetration of Fluorescent Dye through Polymer Coatings	Krishnaroop	Chaudhuri	2bt
88	Advanced Polymer-Derived Membranes for Pre-Combustion CO_2 Capture and Blue H_2 Production	Leiqing	Hu	2bu
89	Leveraging Linked Organ-on-a-Chip Platforms to Study Gut Microbiome Effects on Human Health and Disease	Danielle	Brasino	2bv
90	Barrier-Free Paper Analytical Devices for Multiplex Colorimetricdetection	Ayushi	Chauhan	2bw
91	Automatic Reaction Mechanism Generation for Complex Systems Using Machine Learning and Computation	Matthew S.	Johnson	2bx
92	Harvesting Cultivated Meat Grown in a Bioreactor with a Low Shear Centrifuge. Centrifuge Is Either Single Use or CIP/Sip.	David	Richardson	2by
93	Out-of-Equilibrium Generic Framework Predicts Concentration-Dependent Liquid Crystals	Jonathan	Salmeron-Hernandez	2bz
94	Enabling and Sensing Technologies for Healthcare, Environmental Monitoring, and Disease Control	Mohammad	Mofidfar	2ca
95	Targeted Degradation of Secreted and Cell Surface Proteins through the LRP-1 Pathway	Elise	Loppinet	2cb
96	Excipient-Based Strategy for Engineering Stable Ultraconcentrated Insulin Formulation	Yanxian	Zhang	2cc
97	Transport of Soft Materials for Biomedical and Environmental Applications	Jin Gyun	Lee	2cd
98	Strain-Stiffening Modular Gels with Dynamic, Secondary Cross-Linking	Sonu	Kizhakkepura	2ce
99	Solid Electrolyte Interphase: Where Polymer Composites Meet Electrochemistry	Huada	Lian	2cf
100	Postdoc Candidate: Nanoscale Self-Assembly in Block Copolymer Blends	Rahul	Kumar	2ch
101	Biological Upcycling of Wastes for Sustainable Development	Jinjin	Diao	2ci
102	Selective Separation and Degradation of PFAS Using Redox-Based Polymers	Paola	Baldaguez Medina	2cj
103	Guiding the Design of Energy Systems with Techno-Economic Assessment and Safety, Risk, and Reliability Analysis	Ahmad	Al-Douri	2ck
104	Conversion of END-of-Life Waste Streams to Low Carbon Fuels and Materials in a Circular Economy MODEL	Emmanuel	Galiwango, P.Eng.	2cl
105	Drug Delivery and Organismal Biophysics	Pankaj	Rohilla	2cm
106	Systems Engineering for Manufacturing of Advanced Biotherapeutics	Francesco	Destro	2cn
107	Accelerated Energy Materials Discovery through Semiempirical Electronic Structure Methods	Yeongsu	Cho	2co
108	From Causal Discovery to Multiscale Modeling in Biological Signaling Networks	Robert	Gregg	2cq

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109	Innovating Light-Matter Coupling at the Nanoscale Interfaces	Jingang	Li	2cr
110	Build It up and Break It Down: Synthetic Biology and Biochemical Engineering for Sustainable Chemical Production and Bioremediation	Jeremy David	Adams	2cs
111	Molecular Engineering and Structural Design of Polymeric Materials for Energy-Water-Environment Nexus	Youhong (Nancy)	Guo	2ct
112	Understanding Gas Transport in Novel Membranes for Energy-Efficient Gas Separations: Polymers, Carbon Molecular Sieves, and Metal-Organic Frameworks	Hyun Jung	Yu	2cu
113	Chemical Systems Engineering for Water Solutions & Bioproducts Manufacturing	Remil	Aguda	2cw
114	Real-Time Green CO2 Tracking with Artificial Intelligence in Biomass Co-Processing	Liang	Cao	2cx
115	Physics-Informed Material Discovery Tools for Energy and Space Applications	Maitreyee	Sharma Priyadarshini	2cz
116	Machine Learning Solutions to Complex Problems in Health, Environment, and Materials	Prateek	Verma	2da
117	Adaptable Self-Driving Laboratories for Material Science and Chemistry	Robert	Epps	2db
118	Miniaturized Systems for Disease Management and Decentralized Diagnostics	Hanie	Yousefi	2dc
119	Microtubular Gas-Diffusion Electrodes for High-Efficiency Electrochemical CO_2 Reduction	Hesamoddin	Rabiee	2dd
120	Developing a Sustainable Future through Research and Education in Synthetic Biology and Metabolic Engineering of Clostridia	Hyeongmin	Seo	2de
121	Advancing Health and Sustainability through Multiscale Computational Modeling of Soft Materials	Zhiqiang	Shen	2df
122	Utilization of Biomass-Based and Industrial Waste in 3D Printing Applications	Anqi	Ji	2dg
123	Analysis and Design of Catalytic Reactions and Materials through Combined Experimental, Kinetic, and Computational Assessments	Wenshuo	Hu	2di
124	Transport Phenomena and Materials Design in Electrochemical Renewable Energy Storage	Zhifei	Yan	2dj
125	Unraveling Reaction Kinetics of Complex Systems for Sustainable Process Development	SriBala	Gorugantu	2dk
126	Computational and Experimental Investigation of the Distribution of Mo-Oxide Species in Mo/H-ZSM-5	Fateme	Molajafari	2dl
127	Decoding and Expanding Genome Functions for Living Technologies	Anush	Chiappino-Pepe	2dm
128	Towards Next-Generation Non-Invasive Epidermal Biomedical Devices for Continuous Health Monitoring	Tamoghna	Saha	2dn
129	New Classes of Materials and Automated Experimental Design into Energy Storage Research	Juhyeon	Ahn	2do
130	Beyond Connectomic Imaging: Building an Integrative Platform to Investigate the Brain	Xiaotang	Lu	2dp
131	Illuminating Neurochemical Signaling in the Brain with Near Infrared Nanosensors	Natsumi	Komatsu	2dq
132	Mulitscale Modeling of Interfacial Electrocatalytic Processes	Nitish	Govindarajan	2dr
133	The Ultra-Fast Dissolving Property of " *Fenamates* " Encapsulated Carbon Nanofibers (CNFs) for the Drug Delivery Application	Suresh	Manivel	2dt
134	Bridging Biological Sequence and Molecular Function for Precision Diagnostics and Therapeutics	Sevahn	Vorperian	2du
135	Bridging Physics-Informed and Data-Driven Materials Designs for Deep Decarbonization	Jiayu	Peng	2dv
136	New Data-Driven Modeling Paradigms in Systems Engineering Using Novel Neural Network Structures	Angan	Mukherjee	2dw

BOARD NUMBER	Title	First Name	Last Name	Paper Number
137	Rational Design of Sustainable Chemical Solutions with Reaction Networks and Data Science	Evan	Spotte-Smith	2dx
138	Peptide Guided Bio-Synthetic Composite Materials for Engineered Biointerfaces	Tyler	Jorgenson	2dy
139	Autonomous Bioelectronic Systems for Multiplex Functions	Xu	Zhang	2ea
140	Multiscale Engineering of Multiphasic Polymer Composites for Soft Electronics and Robotics	Samuel E.	Root	2ed
141	Understanding and Engineering Sustainable Catalysis	Selin	Bac	2ec
142	Engineering Polymer Thin Films for Bio-Active and Energy Storage	Pengyu	Chen	2ee
143	Protein Engineering for Microbial Interface Study	Zihang	Su	2eg
144	Re-Engineering Plasmonic Materials and Nucleic Acid across Different Length Scales for Advanced Catalysis and Biosensing	Yifeng	Shi	2eh
145	*Design Principles and Mechanistic Understanding of Heterogeneous Catalysis Towards Sustainable Development*	Md Delowar	Hossain	2ei
146	Effect of CO2-Pretreatment on Reverse Water Gas Shift (rWGS) Using Ni-Doped CaTiO3/CaO	Seongbin	Jo	2ej
147	Nano-Bio Interface Engineering with Precise Polymeric Nanostructures	Beihang	Yu	2ek
148	Advanced Porous Materials for Molecular Discrimination of Light Hydrocarbons at Sub-Angstrom Precision	Taehoon	Hyun	2el
149	Overcoming Transport Barriers in Fluid-Solid Physical and Chemical Processes	Anthony	Vallace	2em
150	Non-Equilibrium Dissipation As an Organizing Principle in Driven Soft Materials: From Polymers to Active Drops	Kailasham	Ramalingam	2en
151	Advancing Sustainable Chemistry through Experimental and Computational Approaches to Multi-Phase Chemical Reaction Processes	Ari	Fischer	2eo
152	Charged Polymers and Granular Biomaterials for Biomedical Applications	Gabriel	Rodriguez	2ep
153	Artificial Neural Network Model for Capturing the Effect of Local Atomic Environment on Surface Diffusion in Metals and Theirs Alloys	Sandip	Sawarkar	2eq
154	Decarbonization of Fine Chemicals: Development of Alternative Pathways to Close the Carbon Cycle	Juan	Jimenez	2er
155	Development and Application of Surface-Active Nanoparticles	Rong	Ma	2et
156	Tailoring Therapeutic Peptides to Enable Reversible Encapsulation into Different Drug Carriers	Mark	Bannon	2eu
157	Flow Chemistry-Enabled Sustainable Reaction Engineering	Suyong	Han	2ew
158	Engineering Polypeptides through Molecular Simulations, Machine Learning and Optimization Methods for Biological and Clean Energy Applications	Yiming	Wang	2ex
159	Builiding Nanomaterials for Energy Conversion and Energy Storage	Dr. Aniket Sandip	Mule	2ey
160	Next-Generation Bioelectronics Enabled By Single-Crystalline Inorganic Semiconductor Membranes	Jiho	Shin	2ez
161	Engineering Hierarchical Materials for Structural Composites and Advanced Textiles	Lauren W.	Taylor	2fb
162	Hydrogel and Polymer Composite Materials for Water Treatment Technologies & Monitoring of Emerging Contaminants to Further the Understanding of the Environmental Exposome	Angela	Gutierrez	2fc
163	Synthesis and Computational Investigation of Novel Antioxidants Prepared By Oxidative Depolymerization of Lignin and Aldol Condensation of Aromatic Aldehydes	Daihong	GAO	2fd
164	Selective Recovery of Pd^{2+} from Spent e-Wastes *Via* Thermo-Responsive Poly(NIPAM-co-14TCE-4)@PS Nanoparticles.	Hiluf Tekle	Fissaha	2fe
165	Laccase-Mediated Oxygen Reduction in Liquid Flow Fuel Cells for Efficient Oxidation of Biomass Derived Aldehydes with Co-Generation of Electricity	Nan	Liu	2ff

BOARD NUMBER	Title	First Name	Last Name	Paper Number
166	Immunoengineering in Gut-Lung Axis	Mohammad Aminul	Islam	2fg
167	Advanced Material Systems That Harness Inhomogeneity and Multi-Scale Phenomena	Tetsu	Ouchi	2fh
168	The inside-out Lab: Engineering Microbial Communities from the inside-out	Jenna	Ott	2fi
169	Thermochemical Processing of Biomass, Plastics and Waste Feedstocks	Harisankar	S	2fj
170	High-Throughput Characterization of Transport Phenomena through Dynamic Membrane Systems	Jonathan	Ouimet	2fk
171	Jonathan Soucy: The Nerv Lab Will Excite Learning	Jonathan	Soucy	2fl
172	Programming Nanoparticles: Inverse Design for Next-Generation Materials	Timothy C.	Moore	2fm
173	Developing Materials-Based Biointeractive Therapeutics and Technologies	Sohyung	Lee	2fn
174	Dynamic Catalysts: Machine Learning Assisted Operando Characterization.	Prahlad Kumar	Routh	2fo
175	Quick-Release Antifouling Hydrogels for Solar-Driven Water Purification	Xiaohui	Xu	2fp
176	Advancing PFAS Elimination through Catalytic Supercritical Water Reactors and AI-Enhanced Process Intensification	Wenjia	Wang	2fq
177	*Microgel Surface Engineering to Enhance Cell Adhesion and Porosity of Injectable Granular Hydrogel Tissue Scaffolds*	Jing	Liu	2fr
178	Towards Machine Learning Prediction of Kinetic Properties of Enzyme Variants	Veda Sheersh	Boorla	2fs
179	Stimuli-Responsive Complex Fluids and Anisotropic Materials	Tadej	Emersic	2ft
180	Bridging Thermal and Electrochemical Catalysis: Rational Catalyst Design at Atomic Scales through Physical and Machine Learning Based Insights	Shyam	Deo	2fu
181	Research and Teaching Interests of Andrew J. Fox - Modeling Multiphase Fluid Dynamics in the Inertial to Turbulent Regime	Andrew	Fox	2fw
182	Design and Engineering of Molecules Using Molecular Simulations and Machine Learning	Siva	Dasetty	2fx
183	Engineering Tissue Physicochemical Properties for Multi-Omic Characterization	Seo Woo	Choi	2fy
184	Leveraging Immunoengineering for Vaccine and Therapeutics Design	Duo	Xu	2fz
185	Active Matter and Liquid Crystals Under External Fields: Basic Science and Applications	Antonio	Tavera Vazquez	2ga
186	Inverse Design of Complex Flow Systems Using Theory and Differentiable Direct Numerical Simulations	Mohammed	Alhashim	2gb
187	Elasticity Induced Dynamics of Complex Fluids and Filaments	Manish	Kumar	2gc
188	Atomic and Molecular Design of Materials for Sustainable Energy Storage Solutions	Julia	Yang	2gd
189	Multi-Fidelity Computer-Aided Molecular Design	Kevin P.	Greenman	2ge
190	Probabilistic Prediction Model-Based High-Throughput Screening for Discovering Feasible and Effective Catalysts for Dry Reforming of Methane	Hyundo	Park	2gf
191	Heterogenization of Metallocene Catalysts over Surfactant Modified Layered Double Hydroxide Sheets for Efficient Olefine Copolymerization.	Hassam	Mazhar	2gg
192	Exploring the Frontiers of Molecular Diffusion through Machine Learning-Based Forcefields and Electron Density Predictors	Siddarth	Achar	2gh
193	The Signal in the Noise: Fluctuations in Interfacial Chemistry, Quantum Molecular Machines and Photosynthesis	Amro	Dodin	2gi
194	Simulation-Aided Energy and Economic Evaluation for Amine-Based CO_2 Capture Matching Existing Power and Industrial Processes	Koki	Yagihara	2gj

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195	Exploring the Potential Applications of Advanced Porous Nanomaterials for Real World Challenges: Molecular Simulations and Experiments	Mahdi	Niknam	2gk
196	Bio Soft Materials for Advance Applications	Diego	Gomez-Maldonado	2gl
197	Spatial and Temporal Control of Immunobiologics for Disease Treatment	Parisa	Yousefpour	2gm
198	Improving Biological Molecule Delivery through Understanding the Endomembrane System	Ryan	Splichal	2gn
199	Rational Sustainable Polymer Materials Design Using Multiscale Simulation and Theory	Pierre	Kawak	2go
200	Driving Electron and Photon Induced Chemistries to Enable a Sustainable Economy	Samji	Samira	2gp
201	Machine Learning-Assisted Multiscale Modeling for Materials Design	Fangxi	Wang	2gq
202	Cracking the Code: Engineering Extracellular RNA and Nanoparticle Trafficking to Control Host-Microbe Interactions	Angela	Chen	2gr
203	Unleashing the Therapeutic Potential of Cells: Cellular Reprogramming and Tissue Engineering for Enhanced Function and Healing	Pihu	Mehrotra	2gs
204	Enabling Microscale Processing for Structured Healthcare Materials	Zehao	Pan	2gt
205	Revolutionizing Tissue Repair with Advanced Functional Adhesives	Aishwarya	Menon	2gu
206	Engineering Complex Fluid-Fluid and Fluid-Solid Interfaces for Drug Delivery	Vineeth 'Vinny'	Chandran Suja	2gv
207	Catalyst Design for Water Treatment Using *Ab Initio* Simulation	Yu	Chen	2gw
208	New Dimensions in the Human Command of Matter Toward Sustainability	Saman	Moniri	2gx
209	Spectroscopic and Computational Study of Catalytic Nickel Nitride Structures for Plasma-Assisted Ammonia Synthesis	Yiteng	Zheng	2gy
210	Computational Studies of the Structure and Dynamics of Biomolecules at Interfaces	Faramarz	Joodaki	2gz
211	Spectroscopic Imaging and Computational Chemistry at the Intersection of Biology and Material Science	Matthew	Confer	2ha
212	Investigation of Breast Cancer Recurrence Mechanisms Following Radiotherapy of Mammary Gland Adipose Tissue: Evaluating Cellular Metabolism & 3D in Vitro Models	Kevin	Corn	2hb
213	DFT and Classical MD: A Computational Toolkit to Study Electrocatalysis and the Electrode-Electrolyte Interface	Andrew	Wong	2hc
214	Upcycling of Plastics and Bio-Polymers: Design of Catalysts and Reactions	Jaeheon	Kim	2hd
215	Faculty and Post-Doc Candidate: Dr. Yaprak Ozbakir	Yaprak	Ozbakir	2he
216	Cellulose Based Anti-Fouling Coatings for Application in Medical Devices.	Eric	Walker	2hf
217	Model-Based Pharmaceutical Process Design	Ayse	Eren	2hg
218	Big Data Analytics for Disease Systems Biology and Bioprocess Engineering	Saratram	Gopalakrishnan	2hh
219	Sustainable Chemical Manufacturing	Arthur	Shih	2hi
220	Bioinspired Soft Separation Materials and 2D Polymers	Yu-Ming	Tu	2hj
221	Multi-Scale Processing of Architecturally Complex Polymer Materials	Michael	Burroughs	2hk
222	Radiation Therapy Enhances Breast Cancer Cell Proliferation and Invasion in Extracellular Matrix Hydrogels	Tian	Zhu	2hl
223	Non-Invasive Sensing and Actuation inside Biological Systems with Functional Soft Materials	Yuxing	Yao	2hm
224	Translational Research for Auditory and Sensory Systems.	Parveen	Bazard	2hn
225	Scalable Ionic Polymer Thin Films for Iontronic Device Applications	Kwang-Won	Park	2ho

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226	A Computationally Assisted Approach for Designing Wearable Biosensors Toward Non-Invasive Personalized Molecular Analysis	Daniel	Mukasa	2hp
227	Rational Design of Polymers for Sustainable Water, Energy, and Environmental Separations	Rahul	Sujanani	2hq
228	Beyond Adsorbates: Tracking Dynamic Catalyst Reshaping to Uncover Hidden Structure-Function Relationships	Griffin A.	Canning	2hr
229	Fabrication of Polymeric Systems for Biomaterials	Keturah	Bethel	2hs
230	Rigorous Statistical Mechanics and Rare Events Tools to Model Catalyst Site Ensembles	Salman A.	Khan	2ht
231	Carbon Capture and Aerosol Technology for Carbon Dioxide Utilization	Onochie	Okonkwo	2hu
232	Computational Living Matter through the Lens of Biomolecular Condensates, Active Systems, and Data-Driven Learning	Hongbo	Zhao	2hv
233	Computational Modeling of Cellular Metabolism across Spatiotemporal Scales for Health and Biotechnology Applications.	Tracy	Kuper	2hw
234	Combined Synthetic and Kinetic Approaches for Understanding Catalytic Processes	Gregory	Tate	2hx
235	NON-Oxidative Catalytic Cnversion of Methane into Benzene over Hierarchical Mo/HZSM-5 Catalyst	Deepti	Mishra	2hy
236	Materials for a Sustainable Future: Understanding Electronic Structure & Engineering Electron Transfer to Design Materials for Sustainability	Subhajyoti	Chaudhuri	2hz
237	Electrochemical Systems with Flowable Suspension Electrolytes for Sustainable Future	Madhu Venkata Rama Krishna	Majji	2ia
238	Rheological (Structural) and Interfacial Properties of Emulsions and Foams for Environmental Applications	Muchu	Zhou	2ib
239	Adhesion of Wet, Compliant and Rough Soft Materials	Preetika	Karnal	2ic
240	Applications of Genome-Scale Modeling on Quantifying Metabolism and Strain Design	Patrick	Suthers	2id
241	Electronic Waste Derived Three-Dimensional Carbon Aerogel for the Adsorption of Phenol from Wastewater	Marut	Jain	2ie
242	Chemical Conjugation Strategies for Functional Intracellular Delivery of Protein Therapeutics	Azmain	Alamgir	2if
243	Efficient, Scalable, and Sustainable Manufacturing of Polymer Composites and Applications in Fire Safety	Yufeng	Quan	2ig
244	Harnessing Water Entropy and Electric Field to Design Aqueous Polymer Systems for Sustainability and Bioengineering	Shensheng	Chen	2ih
245	Materials for CO_2 Capture, Conversion and Storage	Nabankur	Dasgupta	2ii
246	Innovating Pharmaceutical Technology through Prototyping, Process Analytics and Modeling	Ajinkya	Pandit	2ij
247	Single-Step Aerosol Method for Scalable and Sustainable Valorization of Lignin	Sujit	Modi	2ik
248	Deep Learning-Enabled Design of Protein-Nucleic Acid Assemblies for Gene Regulation and Gene Therapy	Cameron	Glasscock	2il
249	Biomaterials of Tomorrow: Feedstock's Variability a Materials Challenge for Renewable Resources Engineering.	Diana	Ramirez Gutierrez	2im
250	Hydrogen Transfer-Mediated Chemical Transformation and the Coupled Physical Effects	Gang	Wan	2in
251	Ultra-Flexible Endovascular Probes for Brain Recording through Micron-Scale Vasculature	Anqi	Zhang	2io
252	Engineering Biomaterials for Women's Health	Aida	López Ruiz	2ip
253	Integrated Functional Polymer Engineering Pipeline for Next-Generation Biotechnologies	Juhyuk	Park	2iq

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254	Effect of the Concentration of Brönsted and Lewis Acidic Sites on the Main Reaction Pathways during the Conversion of Fructose over Sn-KIT-6-PrSO_3h Bifunctional Catalyst	Edgar	Tututi	2is
255	Immunoengineering Strategies for Neurological Diseases	Rick	Liao	2it
256	Theoretical and Computational Approaches for Upscaling Nanoengineered Materials to Design High Strength Polymeric Structural Materials	Nitant	Gupta	2iu
257	Computational Design of Materials for Energy Conversion and Storage	Alexandra	Zagalskaya	2iv
258	Energy System Decarbonization: Leveraging Optimization-Based Techniques for a Sustainable Future	Kaiyu	Cao	2iw
259	A Microfluidic Chip Structure with Ultra-High Liquid-Liquid Mass Transfer Performance	Jing	Song	2ix
260	Liquid Flow Fuel Cell with Modified Anode for Efficient Oxidation of 5-Hydroxymethylfurfural to Produce 2, 5-Furandicarboxylic Acid with Co-Generation of Electricity	Ye	Qiang	2iy
261	Catalytic Microwave-Assisted Pyrolysis of Waste Plastics for Circular Economy Development	Leilei	Dai	2iz
262	Hierarchical Structuring of Biopolymers for Environmental Nanotechnologies	Muchun	Liu	2ja
263	Integrating Molecular Modeling and Machine Learning for Insight into Bulk and Interfacial Phenomena	Alejandro	Gallegos	2jb
264	Effect of PZT Loading and Surfactant Concentration on Cure Depth of PZT Ceramic Ink	Hrudaya	Biswal	2jc
265	Surface Nano-Structuring for Membranes Synthesis and Sustainable Separation Processes Development	Yian	Chen	2jd
266	Permeability, Energetics and Kinetics of Photosynthetic Metabolites across Synthetic Microcompartments	Daipayan	Sarkar	2je
267	Computational Tools for the Discovery and Redesign of Natural and Synthetic Biological Systems	Mohammad Mazharul	Islam	2jf
268	Hybrid Materials for Clean Energy and Sustainability	Hsinhan	Tsai	2jg
269	Computational and Experimental Study of Solvent-Based Brine Desalination.	Gabriel	Barbosa	2jh
270	Improving Gene Therapy Manufacturing and Vector Transduction Efficiency through Capsid Engineering	Jing	Guo	2ji
271	Programming Dynamic States for Directed Active Materials for Tunable Structure, Rheology, and Mechanics	Hojin	Kim	2jj
272	Sulfonated Ionomer Composite Membranes for Use in Vanadium Redox Flow Batteries	Xueting	Wang	2jk
273	Teaching-Focused Faculty Candidate: Using Computational Tools in Chemical Engineering Classrooms	Anukriti	Shrestha	2jl
274	Predictive Electrolyte Thermodynamics based on openCOSMO-RS from Infinite Dilution to Ionic Liquids	Simon	Müller	2jm
275	Creating a Toolbox for Studying Soft Material Self-Assembly and Dynamics	Joshua	Mysona	2jn
276	Integrating Molecular Science with Systems Engineering to Drive Sustainable and Circular Economy	Pooja	Bhalode	2jo
277	Multi-Level Simulation Driven Discovery of Correlated Materials for Carbon Capture, Biomimetic Catalysis, and Quantum Information Science	Jan Niklas	Boyn	2jp
278	High-Throughput Machine-Guided Hybrid Materials Exploration Via Combinatorial Resonant Infrared Matrix Assisted Pulsed Laser Evaporation	Wiley	Dunlap-Shohl	2jq
279	Ion and Polymer Containing Systems: From Nanoscale Physics to Engineering Applications	Harnoor Singh	Sachar	2jr
280	Bring First Principles Towards Continuum: Multiscale Computational Chemistry in Fluids and Materials for Future Sustainable Energy Landscape	Rui	Xu	2js
281	Fundamentals of Active Transport Phenomena in Disordered Materials.	Tingtao	Zhou	2jt

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282	On Improving the Inadequacies in Moment Inversion Algorithm for the Extended Quadrature Method of Moments (EQMOM)	Meltem	Turan	2ju
283	Optimised Integrated Processes for Carbon Capture: From Direct Air Capture to Concentrated Point Sources	Marina	Micari	2jv
284	Upcycling of Plastic Waste into Value-Added Chemicals through Oxidation and Hydrogenation Reactions	Hyunjin	Moon	2jw
285	Monocytes Use Protrusive Forces to Generate Migration Paths in Viscoelastic Collagen-Based Extracellular Matrices	Kolade	Adebowale	2jx
286	Rational Design Strategies for Engineering Hierarchical Soft Matter	Shravan	Pradeep	2jy
287	Toward Efficient Electricity-Powered CO_2 Fixation Systems with Synthetic Biology	Shanshan	Luo	2jz
288	Unraveling the Chemistry on Metal/Metal Oxide Catalysts with Automated Mechanism Generation and Multiscale Modeling	Bjarne	Kreitz	2ka
289	Unraveling the Multi-Scale Dynamics of Soft Materials: A Path to Sustainable Engineering and Environmental Applications	Rishabh V.	More	2kb
290	Realizing the Untapped Potential of Solar-Driven Catalysis	Aisulu	Aitbekova	2kc
291	Exploring the Intersection of Heterogeneous Catalysis and Carbon Capture	Karoline	Hebisch	2kd
292	Designer Polymers for Intracellular Organelle Engineering	Amal	Narayanan	2ke
293	Engineering of Transport Processes out of Equilibrium: Environmental Applications Driven By Fundamental Science	Fernando	Temprano Coleto	2kf
294	Advancing Catalyst Design through Insights from Computational Modeling	Shyama Charan	Mandal	2kh
295	Sustainable Material Design through Machine Learning and Computer Simulations	Ludwig	Schneider	2ki
296	Dynamic, Remote-Controllable Electroactive Hydrogel Waveguide Architectures	Oscar Alejandro	Herrera Cortes	2kj
297	Rational Design Approaches and Engineering Effective and Stable Targeted Delivery Systems and Formulations for RNA Therapeutics	Talia	Shmool	2kk
298	Multi-Phase Ge(GeO_x)/T-Nb_2O_{5-X}/C Composite with Synergistically Improved Electrochemical Performance Toward Lithium Storage	Wei	Tao	2kl
299	Developing Approaches for Polymer Upcycling and Designing Sustainable Polymers	Divya	Iyer	2km
300	Catalyzing the Future: Creating a Confined Environment for the Production of Sustainable Chemicals	Honghong	Shi	2kn
301	Numerical Simulations of Multiphase Flows	Ricardo	Constante-Amores	2ko
302	Electrochemical Upgrading of Small Molecules Via Catalytic Microenvironment and Active Site Tuning	Sunmoon	Yu	2kp
303	Modeling of Eicosanoid Class Switch during Arachidonic Acid Metabolism in Mouse Macrophage Cells Using the Cybernetic Framework	Sana	Khanum	2kq
304	Direct Electrosynthesis of Ammonia from Nitrate Reduction Reaction Via Catalyst Design and Electrolyzer Engineering	Feng-Yang	Chen	2ks
305	A Systems Approach Towards Reconciling Single-Cell Heterogeneity and Cell Phenotype in Health and Disease	James	Park	2ku
306	Electrifying the Chemical Industry Towards a Sustainable Future	Rong	Xia	2kv
307	Migrating Solvation Structures in Li-Ion Battery Electrolytes Revealed By Electrophoretic NMR	David	Halat	2kw
308	Atomic-Level Design of Sustainable Nanomaterials for Greenhouse Gas-Energy-Climate Nexus	Haiyan (Christina)	Mao	2ky
309	Exploring the Frontiers of Biotherapeutic Production: Harnessing the Power of Host Diversity, Coculture for Advancing Live Biotherapeutic Development, and Biocatalysis	Priyanka	Nain	2kz

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311	Influence of Neutral Comonomer Side Chain Length on Transport and Co-Transport of Carboxylates and Alcohols in PEGDA-Based Membranes	Antara	Mazumder	2lb
312	Accelerating the Advancement of Functional Nanomaterials for Clean Energy Applications	Chaochao	Dun	2lc
313	Catalyst Optimisation and Design for Heterogeneous Reaction Systems	Shambhawi	Shambhawi	2ld
314	Complex Modeling in Biology: Studying Intracellular Entry in the Past and Aging in the Future	Xinxin	Wang	2le
315	Quantifying Exosomes, Supermeres and Lipoproteins Subfractions for Early Detection of Cancer and Cardiovascular Disease	Sonu	Kumar	2lf
316	Nanoscale Thermodynamics in Liquids and Soft Materials	Xingfei	Wei	2lh
317	Utilizing Microbial Communities for Valorization of Waste Carbon	Bradley	Biggs	2li
318	Processing-Structure-Property Relationships for Anisotropic Soft Materials	Kushal	Bagchi	2lk
319	Meet the Candidate: Yoorae Noh – Sustainable Eco-Friendly Plastic Manufacture, Recovery, and Management	Yoorae	Noh	2ll
320	Rapidly Ordered Block Copolymer Membranes with Tunable Pore Sizes for Wastewater Treatment	Kshitij	Sharma	2lm
321	Redox Gel Polymer Electrolyte with Radical Molecules for Fibrous Energy Storage Devices	Jeong-Gil	Kim	2ln
322	Boost up the Electrical Property of CNT Fibers By Governing Impurities on the Surface of CNT with Microwave-Assisted Purification	Min Ji	Kim	2lo
323	An Optimized Miniaturized Annular Rotating Flow Reactor for Controllable Continuous Preparation of Functionalized Polysilsesquioxane Microspheres	Tianyao	Tang	2lp
324	Design of Fast-Charging Anode Interphase Based on the Understanding of Ion and Electron Transport	Shuo	Jin	2lq
325	Exploring API Impregnation Technology with a Case Study on Carbamazepine	Mehrdad	Khakbiz	2lr
326	Circular Engineering Applied to Technological Processes	Andrea	Landazuri	2ls
327	Synthetic Ru/K2CO3–MgO Dual Function Materials for Integrated CO2 Capture and Conversion Via Methanation at Low Temperatures	Tae-Young	Kim	2lt
328	Iron-Based Catalyst for Production of Hydrogen and CNTs through the Catalytic Decomposition of Methane.	Shashank	Shekhar	2lu
329	Engineering and Adaptive Laboratory Evolution of *Escherichia coli* for Improving Methanol Assimilation Based on a Hybrid Xump Pathway	Qing	SUN	2lv
330	Mathematical Model of the Dezincification Behavior for the Commercial-Scale Rotary Hearth Furnace	Jinsu	Kim	2lw
331	Meet the Post-Doc Candidates Session: Process Intensification for Industrial Crystallizations Via Process Control and Design Strategies	Montgomery	Smith	2lx
332	Energy and Charge Transport and Forces in Novel Chemical Environments	Mohammadhasan	Dinpajooh	2ly
333	Spatial Systems Biology for Translational Cancer Immunotherapy	Alexander	Xu	2lz
334	Integrating Simulations and Experiments to Elucidate Ion and Small Molecule Transport in Polymeric Materials	Everett	Zofchak	2ma
335	Programmable Synthetic Circuits for Smart Therapeutics	Alexander	Vlahos	2mb
336	Engineering and stabilizing cell aggregates for synthetic multicellularity	Heidi	Klumpe	2mc
337	Conjugated polymers based bioelectronic sensors for living-nonliving interfaces	Sujitkumar	Bontapalle	2md

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339	Machine-Learning Driven Exploration of Catalytic Reaction Networks	Hyunwook	Jung	2mf
340	Transforming cell therapy manufacturing and cancer management with large-volume microfluidics	Avanish	Mishra	2mg
341	Empowering Health through Engineering: Utilization of Drug Delivery and Nanotechnology Towards Improved Health Equity	Olivia	Lanier	2mh
342	Advancing Switchable Solvents for the Sustainable Water Reuse and Desalination Applications	Kinnari	Shah	2mi
343	Extending a Microfluidic Platform to Elucidate Bacterial Communication in humans its impact on disease	Corine	Jackman Burden	2mj
344	Electrochemistry Nano Laboratory (Echem NanoLab): Wearable sensing platforms for continuous health monitoring	Farnaz	Lorestani	2mk
345	Creating Advanced Therapeutics and Applications in Enzyme-Controlled Spatiotemporal Technologies	Zhimin	Huang	2ml
346	Interfacial Engineering for Plasmon-Enhanced Nanomaterials for Energy Conversion and Biosensing applications	Lemma	Tufa	2mm
347	Cell-Free Synthetic Biology by Design for Precision Medicine	Yan	Zhang	2mn
348	Design of Advanced Functional Materials for Cardiovascular engineering	Renato	Navarro	2mo
349	Bio- and Art-inspired Bioelectronics for Next-generation Brain-machine Interface	Xiao	Yang	2mp
350	2D Materials for Applications in Optoelectronics, Energy Harvesting and Beyond	Debjit	Ghoshal	2mq
351	Multiscale Modelling Framework to Understand the Effect of Site Heterogeneity on Activity in Paramagnetic Single Atom Catalysts	Sanjana	Srinivas	2mr
352	An Overview of the Application of and Advances in Sparse Identification in Process Systems Engineering	Fahim	Abdullah	147al