# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
Exhibit Hall GH, San Diego Convention Center				
BOARD NUMBER	Title	First Name	Last Name	Paper Number
1	Shuting Xiang	Shuting	Xiang	4a
2	Sustainable Complex Fluids	Kelsi M.	Rehmann	4b
3	Decoding and Expanding Cellular Functions for Living Technologies	Anush	Chiappino-Pepe	4c
4	Engineering Multi-Fate, Trackable Cells for Smart Precision Medicine	Arash	Farhadi	4d
5	Biointerfacing Materials and Technologies	Sohyung	Lee	4f
6	Discovery of Polyethylene-Active Enzymes from the Gut of the Yellow Mealworm and Beyond	Ross	Klauer	4g
7	Neural Engineering for Restoring Vision: Stem Cell Therapies and Microphysiological Systems	Jonathan	Soucy	4i
8	Hierarchical Molecular Design at the Organic-Inorganic Interfaces and Photonics Applications	Wenhao	Shao	4j
9	Understanding the Relationship between Composition and Functionality in Lithium Metal Solid Electrolyte Interphases	Katherine	Steinberg	4k
10	Targeted Error Correction in Soft and Biological Materials	Ella	King	4m
11	From Tackling Plastics Waste to Designing Better Electric Cars: Engineering Transport Processes in Soft Materials to Advance the Sustainable Economy	R Bharath	Venkatesh	4n
12	Liquid Metal Catalysts for Bio and Synthetic Polymer Pyrolysis	Aaditya Hari	Bharanidharan	4o
13	De Novo Protein Design for Programmable Biomaterials and Delivery	Shunzhi	Wang	4p
14	Neuro-Nanotechnology: Designing Functional Tools for Bidirectional Neural Engineering	Shoichi	Nishitani	4q
15	Control of Spatiotemporal Dynamics of Living Cells through Biomolecular Phase Separation	Dongheon	Lee	4r
16	Modeling Complex Self-Assembled Diblock Polymer Phases in Thin Films	Ben	Magruder	4s
17	Controlling Electrochemical CO2 Reduction Using Chirality-Induced Spin in Electrocatalysis	Jeiwan	Tan	4t
18	Data-Driven Discovery and Design of Biomacromolecular Dynamics	Shayna	Hilburg	4u
19	Energy-Efficient Alternatives for Sustainable Polymer Processing	Anubhav	Sarmah	4v
20	Unlocking a Circular Carbon Economy Via Heterogeneous Catalysis	William	Broomhead	4w
21	Establishing Extremophiles As High-Throughput Screening Platform for Protein Engineering	Jingyao	Li	4x
22	Developing Biosensors for Characterizing Protein-Metal Interactions	Jingyao	Li	4aa
23	Computational Heterogeneous Catalyst Design from Material Stability to Mechanistic Assessment	Alexander	Hoffman	4y
24	Computational Catalyst Design and Discovery for Green Chemistry and Renewable Energy Technologies	Qiu	Jin	4z
25	Development of Multiphase Systems for Environmental Engineering Applications	Sam David	Swaminathan	4ab
26	Accelerating the Pace of Materials Discovery for Energy Conversion	Jin	Huang	4ac
27	The Specificity and Kinetics of RNA-RNA Interactions	Ofer	Kimchi	4ad
28	Digitalization in Chemical Engineering: Accelerating Scientific Discovery and Enabling Smarter Manufacturing	Daniel	Laky	4l
29	Process Intensification in Chemical Engineering & Crystallization: Improving and Robustifying the Engineered and the Engineer	Montgomery	Laky	4ae
30	Toward Gastrointestinal (GI) Tract Therapeutic Biomedical Devices; From Bio-Interface Engineering to Ingestible Electronics	Hyunah	Ahn	4af
31	Designing Robust Catalysts for a Sustainable Future	Junjie	Chen	4ag
32	Microscale Tissue Engineering to Study Vascular-Immune Crosstalk in Cancer	Chia-Wen	Chang	4ah
33	Advancing Sustainability and Health through Multiscale Computational Modeling of Soft Materials	Zhiqiang	Shen	4ai
34	Non-Viral Delivery of Nucleic Acids for Various Therapeutic Applications	Manan	Rajith Singh	4al

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
35	Advancing Sustainability: Separation Innovations for Net Zero Emissions	Lakshmeesha	Upadhyaya	4an
36	Micro/Nanoenginering of Living Soft Materials for Advancements in Healthcare and Environmental Sustainability	Roya	Koshani	4ao
37	Tuning Palladium Site Density and Atomicity in Pd-Cu Alloys to Steer Diverse C_2 Product Yields in CO_x Electrocatalytic Hydrogenation	Zehua	Jin	4aq
38	Toward Orthogonal Organelles for Engineered Cellular Processes	Ka-Hei	Siu	4ar
39	Exploring the Impact of Metal Coordination and Nanostructure on Magnetically Responsive Poly(ionic liquid) Copolymers and Surfactant-Complexes.	Kayla	Foley	4as
40	First Principles-Based Multiscale Modeling of Dispersed, Multifunctional Heterogeneous Catalysts in Dynamic Reactive Environments for Decarbonization	George	Yan	4at
41	Hybrid Materials for Catalysis and Sensing	Yifeng	Shi	4au
42	Real-Time Computational Modelling Based on Machine Learning and External Electric Fields for Enhancing Catalyst Performance Towards Selective Product	Shyama Charan	Mandal	4av
43	Mapping Neurochemistry of the Brain with Near-Infrared Nanosensors and Deep-Brain Microscopy	Natsumi	Komatsu	4ax
44	Polymer Self-Assembly and Dynamics Toward Sustainable Applications	Jonathan	Coote	4ay
45	Integrated Manufacturing for the Future: Bridging Advanced Technologies and Sustainable Practices	Dharneedar	Ravichandran	4az
46	The Influence of Water Structure on Water-Responsive Actuation of *Bombyx Mori* Silk.	Darjan	Podbevšek	4ba
47	Designing Functional Polymers for Sustainable Electrochemical Energy Storage and Conversion	Ting	Ma	4bb
48	Unraveling Environmental and Human Health Challenges: From Microbes to Cancer	Carolina	Trenado-Yuste	4bc
49	Machine Learning Innovations in Biocatalysis and Protein Engineering	Tianhao	Yu	4bd
50	Prediction of Molecular Properties of Porphyrins Using Machine Learning with Database Screening Using Kernel Similarity	Eldhose	Iype	4be
51	Polyelectrolyte Complex: Structure-Property Relationships and Functional Materials.	Isaac	Ramírez Marrero	4bf
52	Thermodynamic Assessment of Antisolvent Screening for Drowning-out Crystallization	Taehyun	Kim	4bg
53	Next-Gen Biosynthesis Planning	Vikas	Upadhyay	4bh
54	Multiscale Molecular Modeling in Porous Materials: Accurate Predictions for Sustainable Applications	Filip	Formalik	4bi
55	Dynamics of Complex Fluids and Data-Driven Manifold Dynamics	Manish	Kumar	4bj
56	Advancing Circular Biorefinery Technologies through Catalysis for Sustainable Utilization of Lignocellulosic Biomass	Richa	Tomer	4bk
57	Biomolecular Interactions Understanding and Controlling at Biotic/Abiotic Interfaces	Zihang	Su	4bl
58	Soft and Living Deformable Matter: Biophysical Insight and Bioinspiration from Geometry-Adapted Simulations	Philipp	Schönhöfer	4bm
59	The Study of Micromixing and Phase Transition Phenomena in Pharmaceutical Processes: A Phase-Field Modelling and Raman Microscopy Approach	Irene	Moreno Flores	4bo
60	Multiscale Modeling and Analysis of Adsorption Based Processes: Applications to Hydroisomerization of Alkanes and Breakthrough Curve Modeling	Shrinjay	Sharma	4bp
61	Breaking Frontiers in Decarbonization and Sustainability of Multi-Phase Reactors: Transition from Lab Scale to Commercialization	Nitin	Minocha	4bq
62	Molecular Design and Synthesis of Functional Two Dimensional Polymeric Materials	Zitang	Wei	4bs
63	Designing Electrified Catalytic Processes and Multi-Functional Materials for Decarbonization	Chae	Jeong-Potter	4bt
64	Multifunctional Soft Robots Enabled By Complex Material Response and Collective Interactions	Shih-Yuan	Chen	4bu

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
65	Electrochemically Upgrading Hydrocarbons: From Mechanisms to Applications	Haochen	Zhang	4bv
66	*Self-Assembly Design, Cooperativity, & Thermodynamics in Synthetic Nanostructures Fabricated from DNA*	Jacob	Majikes	4bw
67	Understanding, Design, and Engineering of Materials and Interfaces at the Atomic Scale for a Sustainable Energy Future	Guomin	Zhu	4bx
68	Sustainable Engineering Via Molecular Science: Gas Adsorption, PFAS Separation, and Advanced Desalination	Gabriel	Barbosa	4by
69	Adsorbate and Transition State Scaling Relationships over Transition Metal Catalysts Under the Effect of Charge Condensation	Venkata Rohit	Punyapu	4bz
70	Developing Porous Materials & Advanced Processes for Sustainable Chemical Separations	Arvind	Ganesan	4ca
71	A Unified Theoretical Approach to Solving Challenges in Reaction Kinetics of Energy Materials	Chi-Ho	Lee	4cb
72	Understanding the Interaction and Promotional Role of Ag Promoters with Mo/HZSM-5 Catalyst *Via* Sequential Addition in Methane Dehydroaromatization	Deepti	Mishra	4cc
73	Developing and Utilizing Computational Methods for High Ionic Concentration Systems	Yiling	Nan	4cd
74	Machine Learning Potentials in Multiscale Simulation for Heterogeneous Catalysis	Seokhyun	Choung	4ce
75	Enabling Biology-By-Design: Bottom-up Construction of Synthetic Biosystems with *in Vitro* Expression Platform and Recoded Genome for Human Health	Yan	Zhang	4cf
76	Multi-Scale Design and Processing of Soft Materials for Sustainability	Michael	Burroughs	4cg
77	Designing Customized Pano-Structured Materials for Improved Sustainability and Health Monitoring	Yuanwei	Li	4ch
78	In Situ Characterization Guided Electrocatalyst Design Toward Green Chemical Synthesis	Zhiheng	Lyu	4ci
79	Automating Data-Driven Solutions for Industrial Innovation	Andrea	Galeazzi	4cj
80	Prospects of CO_2 Sequestration in Deep Oceanic Sediments Using Experimental and Modelling Approaches	Vikas	Dhamu	4ck
81	Polymer Films One Monomer at a Time: Bringing Moore's Law to Membrane Separations	Brian	Welch	4cl
82	Advanced Optical Nanosensors to Nanoenzymes – Engineered Nanomaterials for Biomedical and Agricultural Applications	Robert	Nißler	4cm
83	Electrochemical Systems for Sustainable Energy: Solid Oxide Electrocatalytic Cells and Lithium-Ion Batteries	Jaesung	Kim	4cn
84	Observation and Identification of Catalytic Nickel Nitride Structures for Plasma-Assisted Ammonia Synthesis	Yiteng	Zheng	4cp
85	Colloidal Soft Materials By Design	Timothy C.	Moore	4cq
86	Understanding Fluid Behavior at the Molecular Scale: Interfacial Phenomena, Confinement Effects, and Rheology	Wenhui	Li	4cr
87	Development of Translational Microscale Systems to Interrogate How Biophysical and Biochemical Cues Alter the Phenotype of Metastatic Hormone Positive (HR+) Breast Cancer	Braulio	Ortega Quesada	4cs
88	Yield in Colloidal Gels Under the Start-up Shear Flow: Role of Hydrodynamic Interactions and Size Polydispersity	Jae Hwan	Jeong	4ct
89	Tracing the Fate of Active Centers in Engineered Catalytic Systems for Sustainable Energy Applications	Rachita	Rana	4cu
91	Optimization for Sustainable Energy Systems and Data-Driven Predictive Analytics for Smart Manufacturing	Seulki	Han	4cw
92	Multiscale Design of Fluids and Interfaces for Sustainable Water-Energy Solutions	Rahul Prasanna	Misra	4cy

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
93	Scalable Manufacturing of X-Ray Compatible Microfluidics for High Throughput Structure Determination and Integrated Liquid Handling Strategies	Sarthak	Saha	4da
94	Connecting Individual-Cell Regulation to Bacterial Biofilm Development to Advance Treatment and Engineering Solutions	Jung-Shen Benny	Tai	4db
95	Advanced Characterization for Understanding Interfaces in Sustainable Climate and Water Applications	Yaguang	Zhu	4dc
96	Leveraging Biopolymer Processing and Systems Thinking for the Replacement of Critical Plastic Infrastructure	Julie	Rieland	4dd
97	Silicon Based Anodes and Liquid Electrolytes: Strategies for High-Performance Lithium-Ion Batteries	Rohit	Choudhury	4de
98	Integrating Computational and Experimental Approaches to Explore Block Copolymer Self-Assembly, Micellar Dynamics, and Molecular Chain Orientations	Supriya	Gupta	4df
99	Solvent Effects on Solar Fuel Production: Systematic Catalyst and Reactor Design Towards Scalable Photocatalysis	Michael	Allan	4dg
100	Surface Modified Membranes for Pollutant Removal	Lauren	Ward	4dh
101	Unraveling Neurometabolic Crosstalk: Investigating Subcellular Synergy and Intercellular Communication	Wentao	Dong	4di
102	Programming Bioresponsive Nanobiotechnology for Disease Profiling and Precision Medicine	Qian	Zhong	4dj
103	Biopolymer Physics for Health and Sustainability	Pamela	Cai	4dk
104	Improving Drug Safety and Efficacy through Classical and Quantum Simulations	Thiago Jose	Pinheiro Dos Santos	4dl
105	*A Continuous Flow Process for the Controlled Formation Nanoparticles: An Approach for Tuning Nanoparticle Properties and for Elucidating Nanoparticle Formation Mechanisms*	Nouha	El Amri	4dm
106	Integrative Machine Learning Analysis of HLA-Peptide Binding and Disease Association across HLA Molecules	Hyeju	Song	4dn
107	Electrochemical Pathways to Sustainability: Impaired Water and CO2 Electrolysis	Ahmed	Badreldin	4do
108	Advanced Biomaterials-Mediated Transcellular Communication for Tissue Engineering Applications and Therapeutics	Georgios	Tseropoulos	4dp
109	Illuminating the Electrified Interfaces for Energy and the Environment	Yirui	Zhang	4dq
110	Switching the Lights on: The Vision of a ML Model for Enhanced Photocatalysis	Filippo	Balzaretti	4dr
111	Energy Efficient Carbon Capture from Wet Flue Gas Streams and Seawater	Nicholas	Gregorich	4ds
112	Discovering Enzyme Allosteric Sites to Inform Drug Design	Granton	Jindal	4dt
113	Chemical Engineering Fundamentals and Applied Research Towards Workforce Development and Commercialization	Remil	Aguda	4du
114	Electrochemical Nitrogen Fixation: Innovative Pathways to Sustainable Ammonia and Urea Production	Ishita	Goyal	4dv
115	Continuous Improvement in Gene Therapies Facilitated By Electrically Mediated Processes	Molly A.	Skinner	4dw
116	Engineering Unconventional Bacteria for Multidisciplinary Translational Technologies	Cholpisit	Kiattisewee	4dx
117	Physicochemical Fluid Dynamics for Energy and the Environment	Fernando	Temprano Coleto	4dy
118	Unraveling Soft Matter Systems: Theoretical Insights and Molecular Simulations for Fundamental Understanding and Real-World Applications	Umesh	Dhumal	4dz
119	Developing Theoretical and Computational Methods for Modeling Systems of Charged Macromolecules and Biomacromolecules	Jason	Madinya	4ea

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
120	Mechanochemically-Responsive Active Living Matter in Complex Environments	Babak	Vajdi Hokmabad	4eb
121	Development, Optimization, and Functionalization of Nanostructured Catalysts for the Production of Valuable Hydrocarbons Via Fischer-Tropsch Synthesis	Luis	Caballero	4ec
122	Near-Infrared Fluorescent Nanosensors for High Spatiotemporal Neuropeptide Imaging	Jaquesta	Adams	4ed
123	Engineering Tools for the Diagnosis and Treatment of Neurological Disorders	Marjon	Zamani	4ee
124	Real-Time Control and Estimation of Distributed Parameter Systems	Guilherme	Ozorio Cassol	4ef
125	Integrated Electroactive Biofilm-Based Bioelectronics	Xu	Zhang	4eg
126	The Hidden Chokepoints: Exploring Gas Diffusion in the Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase (CODH/ACS) Enzyme Complex Using Molecular Simulations.	Suman	Samantray	4ei
127	Engineered End Fate of Artificially Transferred Mitochondria	Ryan	Miller	4ej
128	Molecular Simulations for Greener Polymers: From Theory to Reality	Pierre	Kawak	4ek
129	Spectroscopic Imaging and Computational Chemistry at the Intersection of Biology and Material Science	Matthew	Confer	4el
130	Precision Bottlebrush Polymers: Synthesis, Characterization, and Potential for Advanced Applications	Nduka	Ogbonna	4em
131	Using Geospatial Analysis to Assess Presumptive PFAS Contamination Sites and Develop Tools to Respond to Federal Regulations	Angela	Gutierrez	4en
132	Bridging Thermal and Electrochemical Catalysis: Rational Catalyst Design at Atomic Scales through Physical and Machine Learning Based Insights	Shyam	Deo	4eo
133	Advancing Chemical Engineering Education: Integrating Industry-Based Curriculum and Innovative Pedagogies	Ifeoluwa	Babalola	4ep
134	Computational and Theoretical Studies of Polymer Self-Assembly	Rahul	Kumar	4eq
135	Protein-Based Materials for Biomedical and Cellular Agriculture Applications	Sanjana	Gopalakrishnan	4er
136	Developing Bio-Based Solutions for Harnessing Natural Resources	Sevcan	Ersan	4es
137	Integrative Structural and Biomolecular Dynamics to Establish Structure-Function and Structure-Property Relationships in Biological Systems	Daipayan	Sarkar	4et
138	Engineering Materials Scale-up Via Optical Metrology and AI-Augmented Simulation: From Batteries to Pharmaceuticals	Andrey	Poletayev	4eu
139	Reaction Engineering of Complex Reaction Systems in Non-Conventional Solvent Environments	Wenjia	Wang	4ev
140	Multifunctional Core-Anchored and Biomass-Derivable Ion-Containing Polymers for Electrochemical Energy Applications	Kevin	Nixon	4ew
141	Multiscale Modeling of Complex Microbial Processes in Bioengineering and the Environment	George E.	Kapellos	4ex
142	Deciphering Catalyst Structural Evolution in Heterogeneous Catalysis: Machine Learning Accelerated Nanoparticle Modeling Under Environment-Driven Reconstruction	Shuqiao	Wang	4ey
143	Thermodynamic Limit of Nanoparticle Disintegration in the Presence of Atom-Trapping Sites	Asanka	Wijerathne	4ez
144	Real Time Decision Making, Design and Optimization Under Uncertainty	Dustin	Kenefake	4fa
145	Low-Cost Medical Devices for Drug Delivery and Fluids in Nature	Pankaj	Rohilla	4fb
146	Engineering the Electrochemical Susceptibility of Reactive Systems	Evan	Miu	4fc
147	Accelerating the Design Cycle of Materials for Energy Applications: Harnessing Data to Bridge the Gap between Prototypes and Synthesis	Jair	Fajardo-Rojas	4fd

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
148	Optimization Models and Algorithms for Infrastructure Planning of Reliable and Resilient Power Systems	Seolhee	Cho	4fe
149	Materials for a Sustainable Future: From Physical Understanding of Fundamental Processes to Data-Driven Discovery of Materials	Subhajyoti	Chaudhuri	4ff
150	The Design of Platinum-Based Bimetallic Catalysts for the Hydrodeoxygenation of Carboxylic Acids	Ayodeji	Omoniyi	4fg
151	Bridging Circular Plastics and Polymer Electronics through Dynamic Network Development and Side-Chain Engineering	Alex	Balzer	4fh
152	Engineering Earth-Mediated Sustainable Soft Matter for Energy, Environment, and Space Exploration Applications	Shravan	Pradeep	4fi
153	Emerging Sources of Non-Determinism: Modified Advanced Control Strategies for Cyberattack Detection, and Control-Based Strategies to Handle Quantum Noise	Keshav	Kasturi Rangan	4fj
154	Advancing Engineering, Biology, and Medicine through Cutting-Edge Computational Methods and Machine Learning	Aref	Hashemi	4fk
155	Carbon-Free Connected Pt–Co Nanoparticle Catalysts with Chemically Ordered Structures for Enhancing Oxygen Reduction Reaction Activity in Polymer Electrolyte Fuel Cells	Qiancheng	Liao	4fl
156	Harnessing Computational Techniques for Next-Generation Sustainable Energy Storage and Optoelectronic Materials	Vallabh	Vasudevan	4fm
157	Designing Catalysts and Elucidating Reaction Mechanisms for Chemical Transformations Foundational to a Circular Carbon Economy	Elizabeth	Bickel Rogers	4fn
158	Moises Gutierrez, M.S., E.I.T. | Ph.D. Candidate Chemical Engineering | *Hansen Biointerface Lab.* | *Tim Taylor Department of Chemical Engineering, Kansas State University*	Moises	Gutierrez	4fo
159	Functional Bio-Interfacing Materials for Translational Biomedical Devices	Shaghayegh	Shajari	4fq
160	Theory-Guided Design of Membrane and Processes for Efficient Separations	Akshay	Deshmukh	4fr
161	Data-Driven Models for Computational Drug Discovery: Enhancing Therapeutic Specificity and Enabling Precision Medicine	Atefe	Alimirzaei	4fs
162	Theoretical Insights into Alternative Oxygen Evolution Reactions	Pooja	Basera	4ft
163	Advancing Urban and Indoor Air Quality: Chemical Engineering Solutions to Environmental Challenges	Britney	Russell	4fu
164	Thermodynamics of Neutral and Charge-Containing Polymer Complexes in Solution and at Interfaces	Samuel	Varner	4fv
165	Advanced Genetic Circuits for Environmental and Industrial Microorganisms	Jae Sung	Cho	4fw
166	From the Atom up: Materials Development for Energy Conversion and Storage	Saman	Moniri	4fx
167	Deciphering Sequence-Dynamics-Rheology Relationships of Biomolecular Condensates	Dinesh	Sundaravadivelu Devarajan	4fy
168	Integrating Machine Learning with Evolutionary Algorithms for the Rapid Discovery of High-Performing Metal-Organic Frameworks for Gas Adsorption	Nicole	Beauregard	4fz
169	Progressing Towards a Sustainable Future with Computational Research: Advancing Energy Storage to Waste Management	Tridip	Das	4ga
170	Computational Scientist, Bringing Experience, Leadership, Multidisciplinary Collaboration, and Passion to Discover the Materials to Solve the Societal Challenges.	Felipe	Jimenez Angeles	4gb
171	Molecular Engineering of Sustainable Foams and Bubbly Fluids	Chenxian	Xu	4gc
172	Optimization, Learning, and Control for Smart Biomanufacturing	Yingjie	Ma	4gd

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
173	Engineering Human Commensal Bacteria for Therapeutic and Personalized Applications	Daniel	Yoo	4ge
174	Decarbonize Material Industries with Clean Energy and Climate Technology	Duhan	Zhang	4gf
175	Characterization and Engineering of Non-Model Fungal and Algal Systems	Hugh	Purdy	4gg
176	Unraveling Electrochemical Interfaces: From Fundamental Understanding to Practical Applications	Ara	Cho	4gh
177	Harnessing Interfacial and Cooperative Interactions to Control Soft Materials: Theory and Simulation	Christopher	Balzer	4gi
178	Electrolyte-Modulated Electrodeposition of Co-Mo Catalysts for Enhanced Alkaline Hydrogen Evolution for Anion Exchange Membrane Water Electrolyzers	Gopinathannair Madhavikutty	Anilkumar	4gj
179	Municipal Solid Waste-Derived Syngasfermentation Process By Pressurization	Gwon Woo	Park	4gk
180	Embracing Complex Organic Wastes As Valuable Feedstocks for a Renewable Future	Heather	LeClerc	4gl
181	Advancing Biomanufacturing for Defossilization of the Carbon Economy	Seung Hwan	Lee	4gm
182	Tailored Heterogeneous Catalysts: Adaptable Surface Interfaces for Sustainable Energy Applications	Baraa	Werghi	4gn
183	Upscaling Transport Phenomena in Biological Systems	Jessica	Sánchez-Vargas	4go
184	How Electrolyte Composition Influences Electrocatalytic Water Splitting Activity	Jay	Bender	4gp
185	Studying Human Metabolic Diseases By Compartmentalized Redox and Metabolic Analyses	Sun Jin	Moon	4gq
186	Computationally Accelerated Waste Valorization Via Materials Discovery and Design	Stephen	Vicchio	4gr
187	Applying for a Post-Doctoral Position in the Development of CO2 Conversion Catalysts	Jong Hyeak	Choe	4gs
188	Scale-up of Milli-Channel Wall Coated Reactor through Intensified Fractals-Based Reactor Design and the Proof-of-Concept	Muhammad Malik Nawaz	Khan	4gt
189	Tandem Catalysis and System Design for Sustainability, Energy Transition, and Decarbonization	Milad	Ahmadi Khoshooei	4gu
190	Two-Dimensional (2D) Polyaramids: The Next Generation of Separations Materials	Cody	Ritt	4gv
191	Engineering Electrochemical Systems for Sustainable Energy and Environmental Solutions	Rohit	Chauhan	4gy
192	Leveraging Bottlebrush Polymers to Design Tissue-Specific Synthetic Extracellular Matrix-Mimics	Monica	Ohnsorg	4gz
193	Data-Centric Modeling, Design, and Synthesis of Complex Materials	Shengli	Jiang	4ha
194	Adaptive Polymer Electronics: Multiscale Design and Mechanism Understanding	Yu	Zheng	4hb
195	Near Field Enhancement from Plasmonic Metal Oxide Nanocrystals: From Fundamentals to Their Applications	Woo Je	Chang	4hc
196	Accurate Thermochemistry & Kinetics of Ionic Solutes with Computational Chemistry	Jonathan	Zheng	4hd
197	Leveraging Polymer Physics and Engineering for Developing Sustainable Electronics and Energy Storage Devices, Membrane Separations, and Preventing Plastic Pollution	Maninderjeet	Singh	4he
198	Mathematical Modeling of Inflammatory Response in Mammalian Macrophages Using Cybernetic Framework and Novel Information-Theoretic Approaches	Sana	Khanum	4hf
199	Tailoring Active Centers on Surfaces and within Confined Spaces to Build Structure-Function Relationships through Kinetic and Spectroscopic Assessments	Rachel A.	Yang	4hg
200	Precision Immunomodulation with Lipid Nanoparticles: Tailoring Local and Systemic Therapies	Alireza	Hassani Najafabadi	4hh
201	AI-Powered Protein Engineering for Clean Energy and Biomedical Applications	Yiming	Wang	4hi
202	Design of Redox-Copolymers for Electrochemical Environmental Remediation and Resource Recovery	Anaira	Roman Santiago	4hj

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BOARD NUMBER	Title	First Name	Last Name	Paper Number
203	Application of Advanced Magnetic Resonance Methodologies to Elucidate Charge Storage Mechanisms and Ion Interactions for Energy Storage Systems and Beyond	Leo W.	Gordon	4hk
204	Developing Vascularized Microphysiological Systems for Disease and Immunology Studies	Zhengpeng	Wan	4hl
205	3D-Printed Zeolite 13X Gyroid Monolith Adsorbents for CO_2 Capture	Solomon Kahsay	Gebremariam	4hm
206	Techno-Economic Optimization of CO2 Capture by Vacuum/Pressure Swing Adsorption Using Hierarchically Porous Structured Composites with Ultra high MOF Loading	Solomon Kahsay	Gebremariam	4ib
207	Understand and Control Ions As Well As We Do for Electrons	Gang	Wan	4hn
208	Bridging the Gender Gap in Autoimmunity with T-Cell–Targeted Biomaterials	Aida	López Ruiz	4hp
209	Chemical Engineering of Nanostructures and Interfaces for Molecular Sensing	Andreas	Güntner	4hq
210	Harnessing Nanotechnology, Microfluidics, and Molecular Biology Techniques to Synthesize Biohybrid Drug Delivery Systems	Uday	Chintapula	4hr
211	Biophysics of Living Matter across Scales–Metabolism, Shape, Organization, and Function	Alejandro	Martinez-Calvo	4hs
212	Investigating Electrochemical Mechanisms in Biophysics and Bioseparations	Pedro	de Souza	4ht
213	Macromolecular Engineering of Membranes Capable of Energy-Efficient Chemical Separations and Water Purification	Benjamin	Pedretti	4hu
214	Decomposing Polyurethane Foam with 1D and 2D MFI Type Zeolites: A Catalytic Approach.	Kanan	Shikhaliyev	4hw
215	Solid Oxide Electrochemical Cells for CO_2 Capture and Conversion	Wenjuan	Bian	4hy
216	Microfluidic and Computational Tools for Behavior-coupled Functional Analysis of Neural Networks in *C. elegans*	Hyun Jee	Lee	4hz
217	Exploring Innovative Approaches in Chemical Engineering: Integrating Research and Teaching for Sustainable Development	Suraj	Borkar	4ia
218	Systems Engineering for Manufacturing of Advanced Biotherapeutics	Francesco	Destro	4ic
219	Modeling Amphiphilic Biomolecules at Interfaces	Zack	Jarin	4id
220	Advances in Chemical Sensing: Harnessing Mid-IR Spectroscopy with Microfabricated Devices for Enhanced Sensitivity and Selectivity	Yaoli	Zhao	4ie
221	Nature-Inspired Smart Soft Materials for Agricultural Applications	Subhash	Kalidindi	4if
222	Advancing Sustainable Biopharmaceutical Manufacturing: Integrating Macromolecule Crystallization Mechanisms and Continuous Processes	Mingxia	Guo	4ig
223	Integration of Mechanistic and Data-Driven Modeling for Advanced Manufacturing Process Design: Focus on Powder-Based Pharmaceutical Manufacturing	Kensaku	Matsunami	4ih
224	Colloid and Ion Transport in Nanostructured Environments	Anni	Shi	4ik
225	Design, Synthesis, and Characterization of Highly Dynamic Catalyst Systems	Siobhan	Brown	4il
226	Microscopy, Rheology, and Dynamics of Microbial Communities in Complex Environments	Meera	Ramaswamy	4im
227	Green Multifunctional Materials for Decarbonization, Water Remediation and Energy Accessibility.	Abdelaziz	Gouda	4in
228	Ionic Liquid-Based Drug Delivery Systems for Subcutaneous Administration of High Concentration Monoclonal Antibodies	Anujan	Ramesh	4io
229	Multiscale Approches for Mechano-Immunomodulation: From Molecular Design to Soft Materials	Junzhe	Lou	4ip
230	Deep Eutectic Solvent Excipients for Concentrated Protein Therapeutic Formulations	Metecan	Erdi	4iq

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
Exhibit Hall GH, San Diego Convention Center				
BOARD NUMBER	Title	First Name	Last Name	Paper Number
231	Developing Polymer-Based Electrolyte for Next-Generation Rechargeable Battery	Jaeyong	Lee	4ir
232	Advanced Therapeutics and Insulin Formulations Design for Advanced Therapy	Yanxian	Zhang	4is
233	Electrification and Decarbonization Strategies through Process Intensification, Integration, and Optimization	Abdullah	Al-Aboosi	4iu
234	Design of Multi-Component Biomaterial Scaffolds for Localized Immunomodulation	Biplab	Sarkar	4iv
235	Revealing the Exceptional Capacitive Potential of High-Quality Bilayer Graphene Obtained through Electrochemical Exfoliation	Isha	Atrey	4iw
236	Probabilistic Regression Using Conditional Invertible Neural Networks: Usecases in Forecasting and Process Modeling in Energy- and Chemical Engineering	Eike	Cramer	4ix
237	Engineering Porous Organic Materials for Sustainable Separations Processes	Isaiah	Borne	4iy
238	The Power of Randomness and Curiosity: Design of Bioinspired Polymer Scaffolds	Tianyi	Jin	4iz
239	Redox-Mediated Electrochemical Separations for Desalination, Environmental Remediation, and Resource Recovery	Nayeong	Kim	4ja
240	Postdoc Candidate: Quantifying Diffusive Mass Transport in Aqueous Two-Phase Systems for Vaccine Manufacturing	Seth	Kriz	4jc
241	Heterogeneous Catalyst Design for Efficient Decarbonization / Defossilization in Chemical Processes	Hyunjin	Moon	4jd
242	Engineering Surface-Active Nanoparticles System	Rong	Ma	4je
243	Engineering Materials Properties and Interfaces for Energy Generation and Storage	Jonathan	Turnley	4jh
244	A Chemical Recovery Free Deacetylation and Mechanical Refining Process for Efficient Conversion of Corn Stover to Hightly Fermentable and Low Carbon Intensity Sugars	Jinxia	Yuan	4ji
245	Tailoring Microenvironments for the Microscopic to Macroscopic Design of Decarbonized Conversion and Separation Processes	Kyra	Yap	4jj
246	Computational Molecular Design and Informatics for Autonomous Molecular Discovery	Wenhao	Gao	4jk
247	Training the Next Generation of Chemical Engineers As a Teaching-Focused Faculty Member	Lianna	Johnson	4jo
248	Next-Generation Epidermal Platforms for Continuous Health Monitoring	Tamoghna	Saha	4jt
249	Discovering Functional Monomer Sequence in Synthetic Polymers	Hao	Yu	4ju
250	Multi-Scale Computational Modeling: Toward Fundamental Design in Electrocatalysis for Sustainable Chemical Production	Hoang	Tran	4jw
251	Engineering and Sustainable Production of Advanced Biomaterial	Kok Zhi	Lee	4jx
252	Promoting Sustainable Engineering of Nanomaterials for Energy and Catalysis Toward Decarbonization	Hongjun	Park	4jy
253	Design for Enzymes: Toolkits, Biochemistry, and Engineering	Linna	An	4jv
254	Rational Design of Allochroic Polyzwitterionic Materials for Efficient Wound Healing	Dong	Zhang	4kc
255	Advancing Electrochemical CO_2 capture through Novel Oxygen-Insensitive Heterocyclic Quinone-Based Compounds	Maryam	Abdinejad	4ke
256	Multi-Faceted Roles of Lithium Metal in Batteries and Electrocatalysis Revealed By Cryo-EM	Xintong	Yuan	4kf
257	Molecular Insights into Lipid-Protein Interactions and Lipid Composition Impacts on Ion Channel Protein in Bilayer Membrane	Anh	Vo	4kg
258	Engineering a Sustainable World: Energizing Electrification in Energy Systems	Shayan	Niknezhad	4kh
259	Bridging Materials to Biology: Tuning Nanostructure for Better Understanding of Nanozymes and Biomimetics	Anuja	Tripathi	4kj

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
Exhibit Hall GH, San Diego Convention Center				
BOARD NUMBER	Title	First Name	Last Name	Paper Number
260	Engineering Catalysts through Machine Learning, Experimental, and Density Functional Theory Methods for Sustainable Energy Applications	Xin	Wang	4kk
261	Modeling Fluxionality and Off-Stoichiometric Restructuring at Electrochemical Interfaces	Zisheng	Zhang	4km
262	Membranes with Functional Intrinsic Cavity for Isomer Separations	Zhiwei	Jiang	4kn
263	Integration of Robotic High-Throughput Experimentation with Machine Learning to Advance Separation Science	Yufei	Wang	4ko
264	Reactor Engineering for a Decarbonized Chemical Industry	Andrew W.	Tricker	4kp
265	Forced Dynamic Operation of Chemical Reactors for Carbon Management and Process Intensification	Austin	Morales	4kq
266	Harnessing Instabilities in Structured Materials for Enhanced Reaction Kinetics and Self-Assembly	Christopher	Browne	4kr
267	Controlling Multidimensional Energy Landscapes of Responsive Soft Material through Multiple Stimuli	Friedrich	Stricker	4ks
268	Unobtrusive Biosensing Platforms for Personalized Health Monitoring	Jihong	Min	4kt
269	Self-Assembly of Shape-Shifting Colloids	Hamed	Almohammadi	4ku
270	Collective Bacterial Responses in Complex Environments	Kelsey	Hallinen	4kv
271	Bridging the Gaps in Modelling Heterogeneous Catalysis Under Realistic and Dynamic Conditions	Kunran	Yang	4kw
272	Trace Metal Incorporation through *in Situ* Cation Exchange: Effects on Energy Conversion and Storage Properties	Raul	Marquez	4ky
273	Bio-Based Separation of Precious Metals As a Teaching-Focused Faculty Member	Geeta	Verma	4kz
274	Electrochemical Mining of Energy Materials from Air, Water, and Waste	Zhiwei	Fang	4la
275	Advanced Materials for Energy Efficient Devices: Taking 2D Materials from Lab to Fab.	Debjit	Ghoshal	4lb
276	Speciation and Solvoacidity in Molten Salts	Haley	Williams	4lc
277	Decoding the Chemistry of 2D Materials Using Machine Learning for Sustainable Energy and Environmental Applications	Moses Abraham	Bokinala	4ld
278	Execution-Time-Certified MPC Solver: As Fast As Linear Systems Solver	Liang	Wu	4le
279	Optimizing Renewable Energies through Consumer Engagement: Media Influence and System Design	Pouya	Ifaei	4lf
280	Engineering Targeted Delivery Systems for Gene Therapy and Gene Editing	Allen	Jiang	4lg
281	Thin Cation Exchange Membranes through Thiol-Ene Click Polymerization	Claudio Adrian	Ruiz Torres	4lh
282	Direct Air Capture in Cold Regions	MinGyu	Song	4li
283	Molecular Science Discovery through Machine Learning-Based Forcefields and Electronic Structure Predictors	Siddarth	Achar	4lj
284	Viscoelastic Flow Instabilities in Porous Media	Emily	Chen	4ll
285	From Organic Frameworks to Polymeric Networks - Controlling Stability and Dynamicity in Developing New Solutions to Clean Energy and Sustainability	Hao	Lyu	4lm
286	Integrated Pyrolytic Valorisation of Paper Recycling Mill Residues: A Pathway to High-Calorific Biofuels and Sustainable Carbon Nanofillers for Rubber Composites	Mukesh	Bhatt	4ln
287	Probing and Designing Electrolytes and Electrochemical Systems for Energy and Sustainability	Sang Cheol	Kim	4lo
288	Structure-Property Relationships for the Thermophysical Properties of Ionic Liquids Under External Electric Fields	Fernando	Carmona Esteva	4lp
289	Molecular Simulations to Probe Dynamics and Interactions in Nucleic Acids and Nucleoprotein Systems	Lev	Levintov	4lq
290	Transient Thermal Barcode (TTB) Technology for Highly-Accurate and Rapid Sorting of Plastics	Patatri	Chakraborty	4lr
291	Engineering Interfaces for Sustainability	Preetika	Karnal	4ls

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
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BOARD NUMBER	Title	First Name	Last Name	Paper Number
292	Catalyst Discovery and Reaction Engineering By Coupling Chemical Reactions across Phase Boundaries	Ari	Fischer	4lt
293	Electrifying the Chemical Industry Towards a Sustainable Future	Rong	Xia	4lu
294	Catalysis and Reaction Engineering for Decarbonization (CARED) Laboratory	Daniyal	Kiani	4lv
295	Rational Design of Polymers for Sustainable Water, Energy, and Environmental Separations	Rahul	Sujanani	4lw
296	Multifunctional Soft Bioelectronics for Personalized Healthcare and Human Machine Interface	Yadong	Xu	4lx
297	New Approaches to Surrogate Modeling Under Uncertainty and Adaptive Learning in Systems Engineering	Samuel	Adeyemo	4ly
298	Opportunity in Structural Design of Amine Modified Polymer of Intrinsic Microporosity for Highly Selective Olefin/Paraffin Separation	Bo Wei Cynthia	Chen	4lz
299	AI-Accelerated Multiscale Kinetics Simulation for Green Electrochemistry	Chuhong	Lin	4ma
300	Structure–Transport Engineering and the Interfacial Chemistry of Electronic Materials	Julian	Vigil	4mb
301	Activity-Driven Functional Liquid Crystalline Matter	Antonio	Tavera-Vazquez	4mc
302	PDMS-Based Cone Type Dielectric Actuator Containing Double-Oxidized Nanosized Graphene-Encapsulated TiO_2 Nanowire at Low Applied Electric Field	Jinsung	SEO	4md
303	"Enhancing Energy Efficiency: Torrefaction of *Chlorella Pyrenoidosa* Microalgae for Solid Fuel Integration in Coal-Fired Power Plants"	Minahil	Khan	4me
304	Accumulation of Biopolymer in the Microalgae *Chlorella sorokiniana* Cultivated Under Petroleum-Derived Produced Water	Fatima	Irfan	4mf
305	Machine Learning Models and Uncertainty for Atomic Simulations	Ni	Zhan	4mg
306	Insights into 6-e^- Electrochemical Water Oxidation on Tin Oxide-Based Catalyst	Rayan	Alaufey	4mh
307	Polymer × E-Chem: Molecular-Scale Understanding and Design of Polymers for Electrochemical Devices	Rachel	Huang	4mi
308	Toward Material Design with Low Energy Waste Using Artificial Intelligence and Computer Simulations	Gustavo	Perez Lemus	4mj
309	Advanced Material Processing and Patterning	Adam	Bachmann	4mk
310	Empowering Sustainable Energy Applications through Gas-Solid Adsorption	Tahmid Hasan	Rupam	4ml
311	Upcycling Virgin and Waste Polyethylene to Reprocessable Covalent Adaptable Networks (CANs) Via Free-Radical Grafting of Dialkylamino Disulfide Bonds	Logan	Fenimore	4mm
312	Predicting Photodegradation of Contaminants of Emerging Concern in Aquatic Systems Using Optical Parameters	Emad	Sanei	4mn
313	How the Glycocalyx Regulates Membrane Organization and Function	Carolyn	Shurer	4mo
314	Engineering Mass Transport to Active Colloidal Systems: Drug Delivery Frameworks for Biomolecular Condensates	Vinny	Chandran Suja	4mp
315	Topological Analysis, Modeling, and Combinatorial Optimization Under Uncertainty	Varsha	Gupta	4mq
316	Advancing Solution Processed 2D Materials Towards Next-Generation Electronic and Optoelectronic Devices	Rebekah	Wells	4mr
317	"Creation of Mesoporosity in Y Zeolite Via Post-Synthesis Modification and Modeling of Adsorption Isotherms"	Nida	Tasneem	4ms
318	Determining the Paratope of the Monoclonal Antibody	Chao-Lin	Liu	4mt
319	Nanocultures As an Assessment Tool for Microbial Dynamics	Huda	Usman	4mv

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
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BOARD NUMBER	Title	First Name	Last Name	Paper Number
320	Modified Walnut Shell Biochar Enhances Soil Quality and Removes Heavy Metals from Wastewater	Shaikh	Abdur Razzak	4mw
320	Modified Walnut Shell Biochar Enhances Soil Quality and Removes Heavy Metals from Wastewater	Hayat	Haddad	4mw
320	Modified Walnut Shell Biochar Enhances Soil Quality and Removes Heavy Metals from Wastewater	Mudasir	Shah	4mw
323	CO_2 Conversion to Alcohols and Fuels By Thermo and Plasmocatalysis	Mohammadreza	Kosari	4mx
324	Injectable Liquid Metal Crosslinked Poly(3,4-ethylenedioxythiophene) Polystyrene Sulfonate (PEDOT:PSS) Conductive Hydrogel	Qian	Zhou	4my
325	Engineering Approaches for Advancing Disease Modeling, Therapeutic Discovery, & Drug Delivery	Alice	Stanton	4mz
326	Cell-Free Synthetic Biology: A Novel Platform for Biomanufacturing and Diagnostics	David	Garcia	4nb
327	The Effect of Vascular and RBC Disease States on Particle Interactions	Logan	Piegols	4nc
328	Accelerating from Inorganic Materials to Drug Discovery with Enhanced Sampling Methods and Machine Learning	Pablo	Zubieta	4nd
329	Next-Generation Materials Science: Leveraging Machine Learning for Enhanced Understanding and Design	Hyuna	Kwon	4ne
330	Electrochemical Manufacturing of Valuable Liquid Fuels and Product Upgrading By CO2 Gas Reduction Reaction (CO2RR) and Reactor Design	Tae-Ung	Wi	4nf
331	Advancing Sustainable Energy Storage: Innovations in Materials and Technologies for Next-Generation Batteries	Raju	Vadthya	4ng
332	Polymer and Interfacial Engineering for Energy and Sustainability	Shreyas S.	Pathreeker	4nh
333	Bioinspired Design of Structural Bionanomaterials for Sustainable Future	Inseok	Chae	4nj
334	Computational Design of Catalysts for CO2 Conversion and Water Splitting	Zaheer	Masood	4nk
335	Application of Quantum Materials in Dynamic Catalysis	Richard	Tran	4nl
336	Upgrading Low-Value Chemicals to High-Value Products through Catalytic Conversion with Metal Oxides	Laura A.	Gomez	4nm
337	Modeling the Physics of Soft and Active Matter for Biological Technologies	Gesse	Roure	4np
338	Exploring Interfacial Chemistry of Natural and Engineered Materials to Address Grand Challenges Related to Carbon Dioxide Removal and Water Remediation	Soyoung	Choi	4nq
339	Molecular Engineering of Water and Aqueous Solutions for Energy-Water Applications	Joan	Montes de Oca	4nr
340	Atomistic Simulation of Materials for Energy Storage and Conversion	Samuel	Greene	4ns
341	Sustainability, and Transmission Electron Microscopy Laboratory (STEM Lab)	Masoud	Ghasemi	4nt
342	Low Dimensional Green Materials for Energy and Catalysis Applications	Oluwaseyi	Saliu	4nu
343	Complex Fluids and Anisotropic Soft Materials Far from Equilibrium	Tadej	Emersic	4nv
344	Reconfigurable Nano Cube Superlattice Assemblies Elucidated with Dimensional Analysis	Tobias	Dwyer	4nw
345	Carbon-Negative and Energy-Positive Solutions with the Potential of a Rapid Gt-Scale Implementation.	Marco	Gigantino	4nx
346	Electrocatalysis Engineering Toward Green Hydrogen and Ammonia	Feng-Yang	Chen	4ny
347	Mechanistic Studies of Zeolite Catalysis	Jacob	Crouch	4nz
348	Characterizing Adipocyte-Tumor Intercellular Communication through Biomaterial and Microfluidic Design	Xilal	Rima	4oa
349	Accelerating Sustainable Energy Solutions through Data Science and Simulations in Synergy with Experiments	Ritesh	Kumar	4ob

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
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BOARD NUMBER	Title	First Name	Last Name	Paper Number
350	Investigating Lyotropic Liquid Crystals through out-of-Equilibrium Thermodynamics and Numerical Methods	Jonathan	Salmeron-Hernandez	4oc
351	Triglycerides Stabilize Water/Organic Interfaces of Changing Area Via Conformational Flexibility	Thomas C.	Kinard	4od
352	Exploring the Potential Applications of Advanced Porous Nanomaterials for Real-World Challenges: Molecular Simulation and Experimental Investigations	Mahdi	Niknam Shahrak	4oe
353	Active Transport in Disordered Materials	Tingtao	Zhou	4of
354	Exploring Collective Behaviors: From Nanoparticles to Ants to Robots	Kimberly	Bowal	4og
355	Insight into Selectivity of (photo)Catalytic Reactions	Tien	Le	4oi
356	Energy-Efficient Carbon Sequestration in Achieving Net-Zero Emissions By Biobased Fuel, Chemicals and Materials	Junli	Liu	4ol
357	Exploring Fibrous Scaffolds and Microdroplet Chemistry for Health Monitoring, Pharmaceutics, and the Environment	Mohammad	Mofidfar	4on
358	P.S. I Love You	Muhammad	Jujuly	4op
359	Mild Temperature Regulated Highly Stable Graphene Oxide Membrane for Molecular	Haftu	Alemayehu	4oq
360	Bridging the Gap between Academia and Commercialization By Amalgamating Science with Engineering	Shraddha	Maitra	4or
361	Visible-Light Driven Polystyrene Upcycling through Sbsi Chalcohalides: A Novel Approach to Combat Plastic Waste	Goutham	Rangarajan	4os
362	Advanced Polymer-Derived Membranes for Pre-Combustion CO_2 Capture and Blue H_2 Production	Leiqing	Hu	4ot
363	Advanced Terahertz Spectroscopies for Chemical and Biological Engineering	Wonjin	Choi	4ou
364	Developing a Holistic Process Sustainability Measurement	Mitchell	Huffman	4ow
365	Nickel-Tin Nanoalloy on ZnO Catalysts from Mixed-Metal Zeolitic Imidazolate Frameworks for Selective Conversion of Glycerol to 1,2-Propanediol	Ajaysing	Nimbalkar	4ox
366	Enhancing Lithium-Sulfur Batteries with Nanoscale Crystalline-Amorphous Oxide	Haeli	Lee	4oz
367	Integrating Industry Leading Datasets with Genome Scale Metabolic Models to Direct CHO Cell Metabolic Engineering.	Benjamin	Strain	4pa
368	Bridging Physics-Based Simulations and AI-Driven Methods for Polymer Design	Jiale	Shi	4pb
369	Unleashing Electrochemical Flow Reactors By Engineering the Membrane-Electrolyte System	Thomas Y.	George	4pc
370	Accelerating Discovery of Framework Materials By Integrating Synthetic and Data-Driven Methods	Zhiling	Zheng	4pd
371	Somesh Mishra: Cabbi, Darpa, University of Illinois Urbana-Champaign (UIUC), IL, Usapostdoc Research Associate at Agricultural and Biological Engineering (UIUC)	Somesh	Mishra	368af
372	Analytical Insights into the Rheology of mRNA-Loaded Lipid Nanodumbbells	Mona	Kanso	368aq
373	Future-proof design for sustainable materials to enable purification of emergent biologics	Thomas	Johnson	4pf
374	Understanding methanotroph-photoautotroph synergism using an adaptable in-house bioreactor system	Loyal	Murphy	4pg
375	Siyang Wang	Siyang	Wang	4ph
376	Understanding Behaviors of Gas-Sorbing Materials: Learning Key Physical Attributes through towards Obtaining Structure-Property Relationships	Hyun June	Moon	4pi
377	Creating a Sustainable Future: Integrating Green Chemistry and Sustainable Energy Systems for Environmental and Economic Benefits	Zahra	Ebrahimpourboura	4pj
378	From Disordered Cocontinuous Polymeric Nanomaterials to Photo-Aligned Ordered Liquid Crystalline Polymers: Fundamentals and Applications	Jaechul	Ju	4pk
379	Amro Dodin	Amro	Dodin	4pl

# 4 - Meet the Faculty and Post-Doc Candidates Poster Session				
Sunday, October 27, 2024 1:00 PM - 3:00 PM				
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BOARD NUMBER	Title	First Name	Last Name	Paper Number
380	Hydrothermal Liquefaction of Biomass and Mixed Plastics for Fuel and Chemicals	Tawsif	Rahman	4kl
381	Catalyst and mechanism development for the dehydrogenation of propane to propylene	Unni	Kurumbail	4pm
382	Chiral Engineering on Asymmetrical Nanointerface	Jun	Lu	4oo
383	Designing Polymeric Hydrogel Scaffolds to Direct Cell Fate and Behavior	Jacob	Schimelman	4op
384	Mechanical Engineering of Immune Cell Movement in Tissues and Across Vasculature	Byunghang	Ha	4oq
385	Microbes, Mucus, and Motility: Capturing Dynamic Biofilm Microenvironments Using Multi-Scale Modeling	Sanha	Kim	4or
386	Data-driven Approaches for Modeling Large Biomolecular Systems: From Molecular Interactions & Dynamics to Biological Functions	Sucheol	Shin	4os
387	Multi-scale Functional Structure Engineering with Soft Materials	EunBi	Oh	4ot
388	Electrochemical innovations for Sustainable Hydrogen Economy and CO_2 Valorizations	Manjeet	Chhetri	4ou
389	Engineering Nanomaterials for Diagnostic Imaging, Smart Drug Delivery, and 3D Bioprinting	Wonjun	Yim	4ov
390	Biomaterials for Environmental Solutions: Designing Functional Materials for Pollution Control, Microbial Safety, and Resource Recovery	Logan	Morton	4oz
391	Circularizing Chemical Commodity Production through Fundamental Electrochemical Investigations	O. Quinn	Carvalho	4pa
392	Sarah Adaryan	Sarah	Adaryan	4pb
393	Isolated Catalytic Site for CO_2 and Alkane Transformation	Yong	Yuan	4pe
394	Towards the Next Generation of Rechargeable Batteries	Guanzhou	Zhu	4py
395	Where Seeing Becomes Doing: Computer Vision in Process Chemistry	Rama	El-khawaldeh	4pz
397	Large Language Model and Multimodal Learning Framework for Catalyst Discovery	Janghoon	Ock	4qf
398	Experimental studies and AI modeling of engineered microbes and microbial interactions for a sustainable circular economy in waste management and bioproduct production	Neda	Fakhimi	4qa
399	Development of Innovative Catalysts for Advancing Processes towards Sustainability	Fouzia	Nowrin	4qb
400	Mechanistic Insights and Catalyst Design for Biomass Conversion: A Multiscale Approach	Pallavi	Dandekar	4lk
401	Enhancing Oxidation Stability of Amine-containing CO_2 Adsorbents using Hydroxyethyl Starch.	Chanjot	Kaur	4qc
402	Nonlinear Systems Modeling and Optimization for Energy Systems and Grid Decarbonization	Saif R.	Kazi	4qd
403	Computational Investigations of the EDL Structure on Electrocatalytic Reactions	Payal	Chaudhary	4qe