

363 - Meet the Industry Candidates Poster Session: Catalysis and Reaction Engineering

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
1	Rethinking the Fate of Carbon: Leveraging Artificial Intelligence and Reaction Engineering to Enable New Hydrothermal Technologies	David	Kenney	363j
2	Electrochemical Pathways Towards Sustaining Industrial Decarbonization	Ahmed	Badreldin	363e
3	Practical Single-Atom Alloy Catalysts Design for Sustainable Chemical Processes	Ho Yi	Lam	363i
4	Deciphering Catalyst Structural Evolution in Heterogeneous Catalysis: Machine Learning Accelerated Nanoparticle Modeling Under Reaction-Driven Reconstruction	Shuqiao	Wang	363d
5	Bridging Thermal and Electrochemical Catalysis: Rational Catalyst Design at Atomic Scales through Physical and Machine-Learning Based Insights	Shyam	Deo	363b
6	Fabricating Thin Films of MOFs for Catalytic and Separation Applications	Rajan	Bhawnani	363g
7	Hidden Chokepoints: Exploring Gas Diffusion Pathways in the Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase (CODH/ACS) Enzyme Complex Using Molecular Simulations.	Suman	Samantray	363h
8	The Design of Bimetallic Catalysts for Renewable Fuel Production	Ayodeji	Omoniyi	363k
9	Examining Reactivity and Contextualizing Stability of Earth-Abundant Metal-Organic Frameworks for Aqueous Pollutant Degradation	Samuel C.	Moore	363f
10	Computational Insights into Solvent Effects on Catalysis and Biomolecules	Xiuting	Chen	363c
11	Advancing CO ₂ Reduction Modeling: A Comprehensive Tool for Electrolyte Effect Integration	Ara	Cho	363a
12	Modeling CO ₂ Reduction across Lengthscales	Francesca	Lorenzutti	363l
13	Integrated Capture and Catalytic Conversion Systems of CO ₂ from Industrial Flue Gas to Value-Added Chemicals	Rohan	Sartape	363m
14	Tuning of Charge Density for Programmable Catalysis in Water Gas Shift Reaction	Venkata Rohit	Punyapu	363n
15	Regulating C ₂ Product Yields in CO _x Hydrogenation By Fine-Tuning Palladium Atomicity in Pd-Cu Alloys	Zehua	Jin	363o
16	Understanding Catalytic Systems By Integrating Experimental and Computational Techniques	Sugandha	Verma	363p
17	Prediction of Chemical Reaction Barriers Using Density Functional Theory and Machine Learning Approaches	Priyanka Bholanath	Shukla	363q
18	Strategic Design and Development of Cu-in Catalysts for High-Performance CO ₂ Hydrogenation	Ezgi	Erdem	363r
19	Enhancing Material Performance through Electronic Property Manipulation: Anisotropy Energy in Ferrite Compositions and Charge Condensation on Water Gas Shift Reaction	Venkata Rohit	Punyapu	363s
20	Two-Dimensional (2D) Catalysts for Plastic Waste Conversion	Ali	Kamali	363t
21	Electrochemical Carbon Dioxide Reduction on Full and Fractional Copper Monolayers on Platinum and Palladium Substrate.	Rahul	Yadav	363u

363 - Meet the Industry Candidates Poster Session: Catalysis and Reaction Engineering

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
22	Identifying and Overcoming Scaleup Bottlenecks Via Process Intensification and Reaction Engineering for Continuous Flow Systems in Pharma, Water, and Specialty Chemicals	Esai	Lopez	363v
23	Regulating Cox Thermal Catalytic Conversion Via Catalyst Design and Reaction Energy Input	Ewa	Chukwu	363w
24	Regulating CO _x Thermal Catalytic Conversion through Catalyst Design and Reaction Energy Input	Ewa	Chukwu	363x
25	Carbon-Free, Core-Shell Connected Nanonetwork Electrocatalysts with Enhanced Oxygen Reduction Activity and Durability for Polymer Electrolyte Fuel Cells	Aparna	Chitra Sudheer	363y
26	Understanding the Structure-Performance Relationship of CO Oxidation Reaction through the Fabrication of Cerium Oxide Aerogel-Based Catalysts with Various Structures	Byeongseok	Kim	363ab
27	Tracking the Unique Structural Evolution of Aei-Type Zeolites Synthesized By Faujasite Interzeolite Transformation	Zhiyin	Niu	363ac
28	Advancing Fischer-Tropsch Synthesis: Design, Optimization, and Functionalization of Nanostructured Catalysts Involving State-of-the-Art Approaches in Catalysis	Luis	Caballero	363ad
29	Enhancing Diffusion and Catalyst Lifetime of Zeolites By Novel Secondary Growth and Post-Treatment Methods	Kumari	Shilpa	363ae
30	Selective Deoxygenation of Carboxylic Acid to Aldehydes over Metal Oxides: Kinetics and Mechanism	Laura A.	Gomez	363af
31	Multiscale and Particle-Size Modeling of Hydrogenolysis of Light Hydrocarbons on Pt Catalysts	Mubarak	Bello	363ah
32	Upcycling Waste Plastics through Pyrolysis	Jiayang	Wu	363ai
33	Enhanced Stability of Finned Zeolite SSZ-13 Catalysts in the Methanol to Olefins Reaction	Chenfeng	Huang	363aj
34	Mesoporous Organosilica As Catalyst Support for Aqueous Hydrogenation of Phenol: The Effect of Aromatic Content and Amine Loading of the Support	Snehal	Patil	363ak
35	Design and Optimization of Low-Dimensional Zeolite Catalysts with Enhanced Mass Transport Properties	Sambita	Choudhury	363al
36	Reactor and Processes for Endothermic Reactions at High Temps Basis for the Next Generation of Styrene Monomer Plants	David	Camp	363am
37	Catalyst for Direct Converting Carbon Dioxide to Alkanes/ Olefins	Chaohuang	Chen	363ap
38	Catalyst and mechanism development for dehydrogenation of propane to propylene	Unni	Kurumbail	363aq

364 - Meet the Industry Candidates Poster Session: Computing And Systems Technology Division*Tuesday, October 29, 2024 1:00 PM - 3:00 PM**Exhibit Hall GH, San Diego Convention Center*

BOARD NUMBER	Title	First Name	Last Name	Paper Number
39	Development of Fast-Charging Protocol Considering Cell-to-Cell Variability of Lithium-Ion Batteries	Minsu	Kim	364a
40	Simplest Mechanism Builder Algorithm (SIMBA)	Miguel Angel	de Carvalho Servia	364b
41	Design and Optimization of Integrated Energy Systems with Market Interactions	Xinhe	Chen	364c
42	Mathematical Modeling of Lipid Metabolism Using Cybernetic Framework (Kinetic Modeling Technique) and Novel Information-Theoretic Approaches	Sana	Khanum	364d
43	Kinetic Modeling of Eicosanoid Metabolism Using Cybernetic Framework and Novel Information-Theoretic Approaches	Sana	Khanum	364e
44	Dynamic Risk-Based Operability and Control Strategies for Smart and Sustainable Process Operations	Beatriz	Dantas	364f
45	Enterprise Wide Optimization Under Uncertainty and Disruption	Oluwadare	Badejo	364g
46	Development of All-Atomistic Force Fields to Model the Polarization Interactions of Liquids with Hexagonal Boron Nitride and Boron Nitride Nanotubes	Shuang	Luo	364h
47	Bridging Physics-Based Simulations and AI-Driven Methods to Accelerate the Design of the Next-Generation Polymers	Jiale	Shi	364i
48	Assessing Accuracy and Improving Prediction of Chemical Reaction Barriers Using Density Functional Theory and Machine Learning Approaches	Priyanka Bholanath	Shukla	364j
49	Machine Learning-Enhanced Tools for Bioprocess Modelling	Haiting	Wang	364k
50	Integrated Modeling and Experimental Design for the Digital Design of Pharmaceutical Manufacturing Processes	Yash	Barhate	364l
51	Hyper-Sample-Efficient Optimization of Expensive Simulation-Based Models for Process Design Under Uncertainty	Akshay	Kudva	364m
52	Decarbonization of Processing Systems and Value Chains through Optimal Resource Integration	Mohammad	Lameh	364n
53	Polarizable Force Field Development and Molecular Dynamics Simulation for High Ionic Concentration Systems	Yiling	Nan	364o
54	Machine Learning Aided Tools for Separation Processes	Foteini	Michalopoulou	364p
55	Revealing Molecular Mechanisms in Polymeric Membranes through Molecular Simulation and Modeling	Nathanael	Schwindt	364q
56	Synergistic Design of Catalysts: Integrating Density Functional Theory and Machine Learning	Pallavi	Dandekar	364r
57	Dynamic Modeling and Estimation for Condition Monitoring of Energy Systems	Vivek	Saini	364s
58	Computation-Led Design of Bimetallic Catalysts for Renewable Fuel Production	Ayodeji	Omoniyi	364t
59	Exploring Gas Diffusion Pathways in the Carbon Monoxide Dehydrogenase/Acetyl-CoA Synthase (CODH/ACS) Enzyme Complex Using Molecular Simulations.	Suman	Samantray	364u
60	Process Modeling and Techno-Economic Optimization for Producing Value-Added Products from Lignocellulosic Biomass	Poulomi	Das	364v

364 - Meet the Industry Candidates Poster Session: Computing And Systems Technology Division*Tuesday, October 29, 2024 1:00 PM - 3:00 PM**Exhibit Hall GH, San Diego Convention Center*

BOARD NUMBER	Title	First Name	Last Name	Paper Number
61	Modeling Affinity Maturation to Recapitulate Germinal Center Dynamics	Jonathan	Faris	364w
62	Modeling and Solution Strategies for the Optimization of Multi-Timescale Process Systems	Nishant Vinayak	Giridhar	364x
63	Data-Driven and Physics-Informed Machine Learning Applications in Real-Time Decision Making and Predictive Control	Amirsalar	Bagheri	364y
64	Development of Algebraic and Topological-Based Structured Packing Model for Rapid Development of Designs	Stephen	Summits	364z
65	Identifying Cost Saving Opportunities through Coordinating Deliveries to Vendor-Managed Inventory Customers	Abilash	Subbaraman	364aa
66	Low-Field Magnetic Resonance Relaxation: Signals, Mechanisms, and Applications in Porous Media	Yunke	Liu	364ab
67	Sustainable Aviation Fuels (SAF) from Ethanol: An Integrated Systems Modeling Approach	Madelynn	Watson	364ac
68	Theoretical View on Alternative Oxygen Evolution Reactions for Heterogeneous Catalysis	Pooja	Basera	364ad
69	Innovative Approaches to Medical Challenges Using Computational Chemical Engineering Principles	John	White	364ae
70	Integrating Data-Driven and Knowledge-Based Methodologies: Designing a Framework for Chemical Process Modeling	Teslim	Olayiwola	364af
71	Exploring Gas Diffusion in the Codh/ACS Enzyme Complex Using Molecular Simulations.	Suman	Samantray	364ag
72	A Multiscale Modeling Framework for Sustainable Chemical Processes with Decision-Making Applications	Thiago	Oliveira Cabral	364ai
73	Stiction Detection in Valve Using He's Model By Simulation of Equal Percentage Valve Characteristic Transfer Function	Anuchit	Wuttitairat	364aj
73	Stiction Detection in Valve Using He's Model By Simulation of Equal Percentage Valve Characteristic Transfer Function	Paisan	Kittisupakorn	364aj
75	Integrated Machine Learning Prediction of Cardiac Fibrosis and Heart Failure Patients.	Saubana	Dada	364ak
76	Systematic Exploration of the Structural Design Space of Metal-Organic Frameworks for Ultrahigh Capacity Hydrogen Storage Using Molecular Simulation and Machine Learning	Kunhuan	Liu	364al
77	Addressing the water-energy nexus with reverse electrodialysis and disjunctive optimization	Carolina	Tristán	364am
78	Process Mapping and Optimization through Adaptive Machine Learning for a Laser Powder Bed Fusion (L-PBF) Additive Manufacturing Process	Alexander	Summers	364an

365 - Meet the Industry Candidates Poster Session: Fluid Mechanics, Mixing, Particle Technology, and Transport and Energy Processes

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
79	Computational Study on Fluid Behavior at the Molecular Scale: Interfacial Phenomena, Confinement Effects, and Rheology	Wenhui	Li	365a
80	Convolutional Neural Network Augmented Soft-Sensor for Autonomous Microfluidic Production	Owen	Land	365b
81	Enhancing Lithium-Ion Batteries: A Study of Silicon-Based Anodes and Electrolyte Systems	Rohit	Choudhury	365c
82	Fluid Dynamics of Drug Delivery and Organismal Fluidic Interactions	Pankaj	Rohilla	365d
83	Fluidized and Inductively Heated Bed for Enhanced CO ₂ Capture Using Solid Sorbents	Dorothy	Mantle	365e
84	Innovative Pilot-Scale Reactors in Environmental Chemical Engineering	Sam David	Swaminathan	365f
85	Mesoscale Modeling of Complex Fluids in Chemical and Biological Applications	Jialun (Galen)	Wang	365g
86	Optimization of Particle Size Distribution of Lipid Nanoparticle for Drug Delivery	Sunkyu	Shin	365h
87	Orientation and Mixing Study of Non-Spherical Particles in a Vibrated Packed Bed System Using Discrete Element Method.	Salma	Khatoon	365i
88	Process Intensification Towards Decarbonizing the Industrial Drying Process: Experimental Method and Analysis of Drying of Paper and Board	Koushik	Sampath	365j
89	Understanding Nanoscale Slip through the Lens of Taylor-Aris Dispersion	Mehul	Bapat	365k
90	Electrocoalescence of Water in Oil Emulsion.	Hrishi	Singh	365l
91	Integration of Low-Grade Waste Heat in Direct Air Capture of CO ₂ Systems; A Data Center Case Study	Lindsey	Hamblin	365o
92	Multiphysics Modeling of Interfacial Phenomena in (Photo)Electrochemical Systems	Alex J.	King	365p

366 - Meet the Industry Candidates Poster Session: General Topics

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
93	Low Pressure Drop 3D-Printed Zeolite 13X Gyroid Monolith Adsorbents for CO ₂ Capture	Kedar	Jivrakh	366i
94	Towards Practical High-Loading Lithium-Sulfur Batteries	Xiaosi	Gao	366s
95	Insights in the Decarbonization of Oil Refining By Integrating High Temperature Electrolysis	Nurlan	Azizli	366g
96	A Combinatory Multi-Technique Approach to Advance GPCR Pharmacology	Keehun	Kim	366a
97	Phage-Drug Conjugates for Antimicrobial Drug Delivery	Yanxi	Yang	366m
98	The Investigation of the Effects of Small Molecule Dopants on a Paampsa/PANI System	Arya	Ajeev	366r
99	Microscopic Mechanism of Polarization Switching in Ferroelectric HfO ₂	Seongjoo	Jung	366j
100	Quantifying the Polyelectrolyte Valency of Engineered Nanoparticles	Yinong	Zhao	366o
101	Supported Ionic Liquid Membranes for Spaceflight Gas Separations	Bharath	Tata	366q
102	Development of Poly(ionic liquid) Copolymers and Composites for Electromechanical Actuators and Other Applications	Kayla	Foley	366f

366 - Meet the Industry Candidates Poster Session: General Topics

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
103	Optimizing the Electrocatalytic Properties of Ti ₂ N Mxene through Decoupling Surface and Bulk Structure and Phenomena	Ray	Yoo	366l
104	Automating Data-Driven Methodologies for the Next Generation of Industrial Processes	Andrea	Galeazzi	366d
105	Advancements in Silicon-Based Lithium-Ion Batteries and Liquid Electrolytes	Rohit	Choudhury	366b
106	Advancing Nanostructures: Computational and Experimental Insights into Block Copolymer Self-Assembly, Micellar Dynamics, and Molecular Chain Orientations	Supriya	Gupta	366c
107	Somesh Mishra, Cabbi, Darpa, University of Illinois Urbana-Champaign (UIUC), IL, Usapostdoc Research Associate at Uiuc	Somesh	Mishra	366p
108	Precision Bottlebrush Polymers: Synthesis, Characterization, Potential for Healthcare and Other Advanced Applications	Nduka	Ogbonna	366n
109	Developing Data-Driven Models for Computational Drug Discovery to Enhance Therapeutic Specificity and Enable Precision Medicine	Atefe	Alimirzaei	366e
110	Quantum Chemical Characterization of Selectivity Control in Sustainable Transformations	Busra	Dereli	366u
111	A Highly Efficient MOF-Based Photosensitizer for the Treatment of Capillary Malformations	Qilu	Wu	366v
112	Understanding the Role of Potential and Ion Concentration on the Structure of the Electric Double Layer Using Machine-Learning Interatomic Potential Simulations	Ademola	Soyemi	366y
113	Fractionation of PVC Towards Easy and Reproducible Chemical Recycling Methods	Ali	Alshaikh	366z
114	Evaporation-Controlled Microstructure and Process Sensitivity in Perovskite Thin Films	Jesse L.	Starger	366ab
115	Conjugative Type IV Secretion Systems Enable Bacterial Antagonism That Operates Independently of Plasmid Transfer	Lois	Gordils Valentin	366ac
116	CO ₂ -Soluble Wettability-Altering Surfactants for CO ₂ Huff-and-Puff in Fractured Formations	Abdullah	Shaheer	366ad
117	Elastin-Based Coatings for Long-Term Organoid Culture of Human Stem Cells	Sheetal	Chowdhury	366ae
118	Assessing the Sustainability of Recovering Rare Earth Elements from a Toxic Wastewater Slurry: Combined Life Cycle Assessment and Technoeconomic Analysis Study	Adam	Smerigan	366af
119	Thiol-Ene Microparticles for Drug Delivery Applications	Chipo	Chapusha	366ag
120	Hansen Solubility Parameters for Solubility Prediction of 2,5-Furandicarboxylic Acid in Binary and Ternary Aqueous/Organic Solvent Mixtures at 293 K	Jacob	Molinaro	366ai
121	Characterization of the Metal-Organic Frameworks and Polyamide Interfaces in Membranes for Water Treatment and Antibacterial Applications	Mohsen	Pilevar Khomami	366aj
122	Advancing Semiconductor and Catalyst Technologies through Atomic-Scale Modeling	Vy T.	Nguyen	366ak
123	Influence of Reactive Conditions on Metal Oxidation States: Insights into Critical Metal Recovery from Municipal Solid Waste and Corrosion Behavior in Extreme Environments	Janhvi	Trivedi	366al

367 - Meet the Industry Candidates Poster Session: Nuclear Engineering Division

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
124	Thermophysical Property Measurement of Molten Salts	Nathanael	Gardner	367a

368 - Meet the Industry Candidates Poster Session: Process & Product Development and Manufacturing in Chemicals & Pharmaceuticals

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
125	Development of Advanced Coatings with Special Wettability for Different Applications	Yihan	Song	368a
126	Sustainable Organosolv Pretreatment of Lignocellulosic Biomass in High Boiling Point Solvents	Kelechi A.	Agwu	368b
127	Heterologous Expression of Anaerobic Gut Fungal Secondary Metabolites in Model Fungal Hosts	Lazarina	Butkovich	368c
128	Material, Reactor and Process Development for Clean Energy Applications	Ashin	Sunny	368d
129	Controlling Impurity Incorporation Mechanisms in Pharmaceutical Crystallization Processes	Mitchell	Paolello	368e
130	Biomufacturing of Neuroactive Biologics Using Engineered Neuromuscular Junction (NMJ) <i>in Vitro</i> Model	Kai-Yu	Huang	368f
131	Digital Twin in Microbial Process Optimization	Beibei	Gao	368g
132	The Influence of High Hydrostatic Pressure on Structure-Viscosity Relationships in Protein Formulations	Brian	Paul	368h
133	Development of Intensified Crystallization Systems through Modularization and Digital Design	Monika	Neal	368i
134	Data-Driven Discovery of Small Molecules for Immune Modulation Via Machine Learning and High Throughput Screening	Oliver	Tang	368m
135	Magnetic Field Enabled Assembly and Propulsion of Colloidal Particles in a Magnetic Medium	Hashir	Gauri	368n
136	Granular Hydrogels for Vascular Network Engineering	Zaman	Ataie	368o
137	Integrated Manufacturing for the Future	Dharneedar	Ravichandran	368q
138	Encapsulation of Small Molecules in Nanotherapeutics for Neonatal Neuroprotection	Nuo	Xu	368r
139	Studying Micromixing and Phase Transition Phenomena in Pharmaceutical Processes: A Phase-Field Modelling and Raman Microscopy Approach	Irene	Moreno Flores	368t
140	Explore the Macromolecule Crystallization Mechanisms and Continuous Processes	Mingxia	Guo	368u
141	Developing Digital Design Frameworks for Enhancing Pharmaceutical Crystallization Processes	Yash	Barhate	368v
142	Liquid Metal Catalysts As a Robust Medium for Hydrocarbon Processing	Aime Laurent	Twizerimana	368w
143	Electrochemical Based Microfluidic Blood Cell Counter	Neeraj	Singh	368x
144	A Paper-Based Point-of-Care Device for the Detection of Cysteine Using Gold Nanoparticles from Whole Blood	Monika	Kumari	368y
145	Techno-Economic Analysis of Alcohol-Based Liquid Organic Hydrogen Carrier (LOHC) Systems	Swapana	Jerpoth	368z
146	Computational Research Focusing on Particle Based Simulations and Machine Learning	Bahadir Rusen	Argun	368aa

368 - Meet the Industry Candidates Poster Session: Process & Product Development and Manufacturing in Chemicals & Pharmaceuticals

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
147	Development of Sustainable Processes Via Integrated CO ₂ Utilization and Structured Ligand Design for Critical Metal Recovery and Renewable Chemical Production	Amanda Whai Shin	Ooi	368ab
148	Process Integration Assessments of Renewably-Powered Direct Air Capture, CO ₂ Regeneration, and Carbon Conversion Technologies	Hussain	Almajed	368ac
149	Vibrational Spectroscopies As Process Analytical Technologies (PATs) for Continuous Manufacturing Monitoring and Chemical Kinetic Determination	Jakub	Konkol	368ad
150	Modifying a Thiolated Gelatin Hydrogel for Improved Mechanical and Biological Efficacy in a Multicompartment Tendon-to-Bone Scaffold for Regenerative Rotator Cuff Repair	Kyle	Timmer	368ae
151	Systems Engineering, Multi-Scale Mechanistic Modeling, and Control for Development Continuous Manufacturing Processes	Anish	Dighe	368ag
152	Lanthanide Binding Tags for Eco-Friendly Separation of Rare Earth Elements	Surabh	KT	368ah
153	Uncovering Bacterial-Mammalian Cell Interactions VIA Single-Cell Tracking	Sayed Golam	Mohiuddin	368ai
154	Mechanistic Understanding of Synthesis Pathways of Porous Crystalline Frameworks (MOFs and COFs)	Rajan	Bhawnani	368aj
155	Developing Nanomaterials for Prolonged Treatment of Cancer Pain	Parker	Lewis	368ak
156	Stimuli Responsive Multifunctional Magnetic Colloidal Particles for Autonomous Propulsion	Abhirup	Basu	368al
157	Towards a Better Understanding of Crystallization Mechanisms with Modeling	Prem	Podupu	368an
158	Advancing Pharmaceutical Powder Engineering: Predictive Modeling and Tailored Particle Morphology for Enhanced Drug Processability	Siddharth	Tripathi	368ao
159	Strategies to Tune Catalytic Properties of Metal-Incorporated Mesoporous Silicates for Enhanced Activity and Selectivity in Acid-Catalyzed Reactions	Anoop	Uchagawkar, Ph.D.	368ar
160	Unraveling the Low-Temperature Solution-Deposited Synthesis of BaMS ₃ (M=Zr, Hf) Chalcogenide Perovskites	Shubhanshu	Agarwal	368as
161	Novel Machine Learning Technologies to Enable Process Development: Elucidating Enzyme Immobilization for Biocatalysis	Hong	Wei	368au
162	Mechanistic Modeling of Continuous Lyophilization Via Suspended Vials	Prakitr	Srisuma	368av
163	Computer-Aided Insight into Disease Mechanisms and Inter-Relatedness Involved with Diabetic Kidney Disease for Exploring Disease Intervention Strategies	Krutika	Patidar	368ax
164	Computer Vision for Real-Time Monitoring and Control of Chemical Processes	Rama	El-khawaldeh	368az
165	Advanced Nanostructured Functional Coatings and Surface Properties Investigation for Bio-Application	Minchen	Mu	368ba
166	Green, Renewable, and Continuous Manufacturing of the Active Pharmaceutical Ingredient Paracetamol	Jimin	Park	368bb

368 - Meet the Industry Candidates Poster Session: Process & Product Development and Manufacturing in Chemicals & Pharmaceuticals

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
167	Advanced Materials Based on Magnetic Nanoparticles, Polymers, and Their Nanocomposites for Applications Spanning Virus Inactivation to PFAS Remediation	Pranto	Paul	368bc
168	Development of a Hemocompatible, Zwitterionic Surface Coating for Extracorporeal Medical Tubing	Juliana	Yang	368be
169	Engineering Nano-Encapsulated Bioactive Systems for Effective Combat Against Agricultural Pests and Foodborne Pathogens	Yashwanth	Arcot	368bf
170	Optimizing Hierarchical Zeolite Properties By Post-Synthesis Treatments	Muhammad Fiji	Firdaus	368bg
171	Amine Functionalized Supported Ionic Liquid Membranes (SILMs) for Direct Air Capture (DAC)	Antoine	Chamoun-Farah	368bh
172	The Effect of Ionic Liquids Molar Volume on CO ₂ /N ₂ and CO ₂ /CH ₄ Pure and Mixed Gas Solubility Selectivity for Industrial Applications	Mariam	Balogun	368bi
173	Dissecting Lignin Degradation Mechanisms of <i>Rhodopseudomonas Palustris</i>	Mark	Kathol	368bj
174	Unexpected Folding Instabilities in Full-Length Staphylococcal Protein a: Insights from Advanced Molecular Dynamics Simulation	Kosar	Rahimi	368bl
175	Towards Circular Use of Thermoplastic Polyurethanes	Remsha	Rafiq	368bm
176	Integrating Industry Leading Datasets with Genome Scale Metabolic Models to Direct Chinese Hamster Ovary (CHO) Cell Metabolic Engineering.	Benjamin	Strain	368bn
177	A Hybrid Approach for Modeling CHO Cell Culture That Incorporates Explainable Machine Learning	Seokyoung	Hong	368bo
178	Accurate Thermochemistry & Kinetics of Ionic Solutes Via Computational Chemistry	Jonathan	Zheng	368bp
179	Development of Supramolecular Polymeric Pharmaceuticals through Self-Assembling Peptide-Camptothecin Conjugates	Tian	Xu	368bq
180	Polymerized Human Hemoglobin-Based Oxygen Carrier Preserves Lung Allograft Function during Normothermic Ex Vivo Lung Perfusion (Meet the Industry)	Alisyn	Greenfield	368br
181	The Complex Interdependency between SOS Response, Mutagenesis, and Resistance	Sreyashi	Ghosh	368bs
182	Systems Biology Approaches for Engineering Metabolism Using Isotope Tracing and Machine Learning	Richard	Law	368bt
183	Polymeric Hydrogels for Mitochondria Transplantation and Delivery	Jamie	Ahmed	368bu
184	Instrument Development to Rapidly Screen Lyophilized Protein Stability	Kelly	Badilla	368bv
185	Unravelling Complex Pathways of Cholesterol Crystallization in Biomimetic Systems	Dipayan	Chakraborty	368bw
186	Three Questions for Laurdan	Thomas C.	Kinard	368bx
187	Molecular Modeling of AAV Capsid-Capsid Interaction Under Different Salt Concentrations, and Surfactants to Investigate the Aggregation.	Leila	Sharifi	368by
188	Structural control of polyorganosilica (POSi) membrane for pre and post combustion carbon capture	Vinh	Bui	368ca
189	Process Intensification for End-to-End Synthesis and Purification of Lomustine	Ilke	Akturk	368cb

368 - Meet the Industry Candidates Poster Session: Process & Product Development and Manufacturing in Chemicals & Pharmaceuticals

Tuesday, October 29, 2024 1:00 PM - 3:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
190	Polymer blending to overcome permeability/selectivity tradeoff in polybenzimidazole for H ₂ /CO ₂ separation	Narjes	Esmaeili	368cc
191	Design and Optimization of Photocatalytic systems for Small Molecule Synthesis and Wastewater Remediation	Rohit	Pal	368cd
192	Synthetic Hydrogels with Non-Linear Chemical Gradients to Guide Encapsulated Human Mesenchymal Stem Cells from a Hydrogel to a Wound	Thomas	O'Shea	365n
193	Scaling Organic Electrosynthesis — the Crucial Interplay between Mechanism and Mass Transport	Zachary	Oliver	368ce
194	Understanding and Quantifying the Benefits of Gel Polymer Electrolytes in Rechargeable Batteries to Improve Safety	Jordan	Smith	368cf
195	Enhancing Oxidation Stability of Amine containing CO ₂ Adsorbents using Hydroxyethyl Starch	Chanjot	Kaur	368cg
196	Tying It All Together: Multimodal Learning in Catalyst and Inorganic Crystal Exploration	Janghoon	Ock	368bd