

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
2	Aspen Based Simulation and Optimization of Biogas Production from Anaerobic Digestion of Cow Dung	Oludare J.	Odejobi	569dk
3	Bridging Understanding between Electrochemical and Thermal Processes for CO ₂ conversion	Ezgi	Erdem	509h
4	Integrating Supercritical Salt Precipitation into Hydrothermal Processing of Wastewater for Critical Resource Recovery	David	Kenney	569g
5	Investigating Metal Poison Deposition Onto Zeolite-Supported Hydrolysis Catalysts Via Liquid-Phase Titration of Acid Sites and Infrared-Spectroscopic Analyses	Nora	Prosak	569ac
6	Tuning Acidity of Beta Zeolite through Heteroatom Incorporation for Efficient Para-Xylene Production in Liquid-Phase Conversion of Biomass-Derived Resource	Jaeyul	Kim	569an
7	Modeling of a Heat-Integrated Biomass Downdraft Gasifier: Tuning of Key Model Parameters Using Experimental Data	Houda	Haidar	569di
8	Investigating the Application of Stimuli-Responsive Ionic Liquids in Biomass Pretreatment for Selective Fractionation.	Alex	Acquah	569dl
9	Evaluating the Activity and Scalability of Enhanced-Activity Aminosilica Catalysts for Glucose Isomerization to Fructose	Paul	Neff	569dn
10	Clarifying the Effects of Varied Pore Diameter for Promotion of Amine-Silanol Interactions in the Nitroaldol Reaction	Paul	Neff	569c
11	Production of Tagatose from Galactose with CaO at Room Temperature	Jikai	Zhao	569do
12	Immobilization of TiO ₂ Nanowires on Glass Substrate for Wastewater Treatment.	Ahmed	Abbas	569eo
13	Methanolysis of Waste Cooking Oil for Biodiesel Production Via Electrolysis Using Potassium Hydroxide Catalyst	Leila	Fereidooni	569ez
14	Using MgAl-Layered Double Hydroxides Modified with SiO ₂ for the Electrocatalytic Conversion of Waste Cooking Oil into Biodiesel	Leila	Fereidooni	569fa
17	Reactor Scale Modeling for Cell-Free Conversion of Cellulosic Glucose to Terpenes	Yudong	Li	569et
18	Hydrogen Production and Carbon Capture By Pyrolysis of Methane and Biogas: From Reaction Engineering to Techno-Economic Studies	Patrick	Lott	569fb
19	Pretreatment Technologies in Circular Bioeconomy: A Review	Zahir	Barahmand	569fi
20	Tri-Reforming of Biogas over a Ni-Alumina Catalyst Derived from MOF Precursors for the Production of Green Hydrogen	Arisha	Sharma	569fs
21	Biochar-Catalyzed Methane Decomposition Towards Green Hydrogen Production: Role of Biochar Properties and Its Environmental Impacts	Hossein	Jahromi	569fu
22	Effect of Zeolite Desilication on the Catalytic Co-Pyrolysis of PP and PET with HZSM-5	Do Hyun	Lee	569ai
23	Wind Turbine Blade Characterization & Pyrolysis: Micropyrolysis GCxGC Analysis	Ruben	de Korte	569bf
24	Exploring Dynamics in Single Atom Catalyst Research: A Comprehensive DFT-Kmc Study of Nitrogen Reduction Reaction with Focus on TM Aggregation	Chi-Ho	Lee	569eq
25	Validation of Complex Low-Density Polyethylene Chemistry in a Plant-Scale CFD Reactor Model	Elijah	Yoder	569ev
26	A Comparative Study of Parameters Estimation of Ammonia Synthesis Reaction Rates over Co/Ba/MgO Catalyst	Mostafa	Elshafie	569ex
27	Modeling and Simulation of a Novel Process That Converts Waste Plastic to Ethylene	Xiaoyan	Wang	569fj
28	Direct Hydrogenolysis of Post-Consumer PET into BTX Using Platinum-Supported Catalyst	Do-Young	Hong	569fl
29	Use of Mass Transport Limitations for Selective Depolymerization of Thermoplastic Polyurethane	Remsha	Rafiq	569fm
30	Plastic Recycling By a Metallohydrolase Mimic	Qikun	Hu	569fn
31	In-Situ Restructuring of MOF Photocatalyst for CO ₂ Reduction	Abdelaziz	Gouda	569a

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
32	A Review of Recent Development on CO ₂ Hydrogenation over Structured Zeolites	Anand	Kumar	569t
32	A Review of Recent Development on CO ₂ Hydrogenation over Structured Zeolites	Methene Briones	Cutad	569t
33	Directing CO ₂ Electroreduction Pathways for Selective C ₂ Product Formation Using Single-Site Doped Copper Catalysts	Zhengyuan	Li	569aj
34	Natural Language Processing Aided Design of Electrochemical CO ₂ Reduction Catalysts	Brianna	Farris	569am
35	Systematic Theoretical Screening of Metal-Ions@Ti-MOF for Catalytic Solar-Driven CO ₂ reduction	Guillaume	Maurin	569as
36	Integrated CO ₂ Capture and Reverse Water Gas Shift Using NH ₃ As a H ₂ Carrier	Seongbin	Jo	569au
37	CO ₂ Hydrogenation to Formic Acid (FA) in an Aqueous Medium: Catalyst Development, Reaction Parameter Optimization, and Reaction Mechanism	Rajeev	Ranjan	569bu
38	Optimizing the Greener Electrochemical Synthesis of Dimethyl Carbonate from CO ₂	Heather	LeClerc	569bv
39	Ni-MgO Catalyst Prepared By a Sol-Gel Method for Low Temperature CO ₂ Methanation	Kaiying	Wang	569bw
40	Effect of Reaction Temperature, CO ₂ :H ₂ Molar Ratio and Gas-Hourly Space Velocity on CO ₂ Conversion for the Supported Ni, Ni-Fe, Rh and Ru Catalysts in Sabatier Reaction	Rahul	Kumar	569bx
41	Electrocatalytic Reduction of CO ₂ Using CTAB Modified Copper Molybdate Nanomaterial	Guruprasad	Bhattacharya	569by
42	CO ₂ Hydrogenation to Methane: Optimizing Metal-Metal Oxide Interfaces through Defect Engineering in Perovskite Oxides	Samiha	Bhat	569bz
43	Bifunctional Tandem Catalyst for Thermocatalytic CO ₂ Hydrogenation to Light Olefins	Sadiya	Mushtaq	569cl
44	Electrochemical Reduction of CO ₂ to Value Added Chemicals Using Cu-Pd Bimetallic Catalyst	Sumit	Gupta	569cp
45	Microenvironmental Engineering Using Organic Additives in Electrolyte to Promote Electrochemical CH ₄ Production on Cu/N-Doped C	Seokwoo	Choe	569cy
46	A DFT Study of CO ₂ and H ₂ Adsorption on Doped and Undoped In ₂ O ₃ Catalysts for CO ₂ Hydrogenation to Methanol	Ozgen	Yalcin	569eg
47	Biomass Derived CO ₂ -Rich Syngas Conversion to Fuels in 3D-Printed Stainless Steel (SS) Microreactor	Sujoy	Bepari	569fg
48	Breaking Frontiers in Selective Electroreduction of CO ₂ to Ethylene Under Controlled Catalyst Regeneration	Nitin	Minocha	569fh
49	Pyroelectric Driven Energy Force in Cobalt Phthalocyanine/Graphene Catalyst Pair for Simultaneous Dual CO ₂ Reduction and H ₂ evolution Reactions	T Alan	Hatton	569fq
49	Pyroelectric Driven Energy Force in Cobalt Phthalocyanine/Graphene Catalyst Pair for Simultaneous Dual CO ₂ Reduction and H ₂ evolution Reactions	Maryam	Mokhtarifar	569fq
50	Combining CO ₂ Reforming and CH ₄ Pyrolysis: Multifunctional Liquid Catalysts with Integrated Carbon Separation	Genpei	Cai	569fy
51	DFT Investigation of Intermetallic Alloys As Electrocatalysts	Jin	LI	569d
52	Unraveling Dynamics of Interfacial Electrocatalysis with Foundational Deep Learning	Liping	Liu	569j
53	Design and Operating Principles for High-Performing Anion Exchange Membrane Water Electrolyzers	Andrew W.	Tricker	569r
54	Automated Microfluidic Reactor Platform for Rapid Screening Reaction Conditions for Alcohol Electro-Oxidation	Xiao	Liang	569v
55	Theoretical Insights for Designing Stable Low-Iridium Oxygen Evolution Catalysts	Chase	Sellers	569w
56	Theoretical Design for Steering Selectivity of Catalysts for Nitrate Reduction	Yu	Chen	569aa

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
57	Active Sites of the Oxygen Reduction Reaction on Stepped Pt(111) Surfaces	Zhenhua	Zeng	569dw
58	High Throughput Screening of High Entropy Alloy Catalysts for Oxygen Reduction Reaction through Atomic-Interactive Graph Attention Network	Eun Seong	Yoo	569ah
59	On the Oxidative Reactivity of Nickel—Molybdenum Composite and Its Effect Towards Hydrogen Evolution	Advay	Shirwalkar	569dx
60	Exploring Bi-Metallic Oxygen Reduction Electrocatalysts with Open Catalyst Project Screening	Darik	Rosser	569ap
61	Synthesis and Characterization of Ag-Based Bimetallic Transition Metals for the Oxygen Reduction Reaction in Acidic Media	Alfred	Vargas	569cm
62	Investigating the Electrochemical Activity of FeMoO ₄ Catalyst for Alkaline Water Electrolysis	Fnu	Vidhi	569cq
63	Unveiling Alkali-Cation Induced Cathodic Corrosion in Cu Catalysts - a Missing Puzzle Piece for Understanding Their Performance in the Electrochemical Reduction of CO ₂	Qian	He	569cr
64	Mechanistic Investigation into Dendrite Growth on Zinc Batteries	Anshuman	Goswami	569ct
65	Highly Selective Electrocatalytic Semihydrogenation of Acetylene to Ethylene with Suppressed 1,3-Butadiene Formation	Xing	Gao	569cx
65	Highly Selective Electrocatalytic Semihydrogenation of Acetylene to Ethylene with Suppressed 1,3-Butadiene Formation	Bin	Yang	569cx
66	Ultratrace Ruthenium Anchored on Cu@Ni Foam for Accelerated H ⁺ Utilization in Nitrate Electroreduction to Near 100% Ammonia Selectivity	Shuyi	Shen	569ep
66	Ultratrace Ruthenium Anchored on Cu@Ni Foam for Accelerated H ⁺ Utilization in Nitrate Electroreduction to Near 100% Ammonia Selectivity	Shuyi	Shen	569ep
67	Complete Nitrate to Ammonia Electrosynthesis Via Nanoconfined Cu ₂ @CuNi Catalysts Unveiling Unique Pathways with Advanced DFT Modelling	Bo	Zhang	569co
67	Complete Nitrate to Ammonia Electrosynthesis Via Nanoconfined Cu ₂ @CuNi Catalysts Unveiling Unique Pathways with Advanced DFT Modelling	Bin	Yang	569co
68	Phase-Dependent Promoting Effect of Surface Oxygen on Molybdenum Carbide Catalysts during Formic Acid Electrooxidation	Ankit Kumar	Gautam	569cu
69	<i>Ab Initio</i> Sampling of the Free Energy Landscape for Water Splitting Electrocatalytic Reactions Using Iridium Oxides	Elizabeth	Lee	569ed
70	<i>A Comparative Study of Bi and Trimetallic Ni-Based Catalyst for the in-Situ Electrochemical Oxidation of HMF to Fdca</i>	Akil	Muthumariappan	569db
72	Revealing Transition Metal Cocatalyst Effect on Single Crystalline BiVO ₄ for Photoelectrochemical Water Splitting	Zhaoyi	Xi	569el
73	Identification of Active Site for Ethane Dehydrogenation and Hydrogenolysis on Pt: Bayesian Correction of DFT-Based Enthalpic and Entropic Uncertainties	Mubarak	Bello	569e
74	Oxidative Dehydrogenation of Propane over Boron-Zeolites with Tailored Active Site Speciation	Chenfeng	Huang	569f
75	Development and Performance of Large-Scale Cr ₂ O ₃ /ZSM-5/CaO Bifunctional Monoliths for Propane Oxidative Dehydrogenation	Khaled	Baamran	569p
76	Enhancing Ethylene Selectivities through Kinetics and Mass Transport during Forced Dynamic Operation of Ethane Oxidative Dehydrogenation	Austin	Morales	569z
77	Detailed Kinetics Study of Methylcyclohexane Dehydrogenation on Pt/Al ₂ O ₃ Catalyst	Jie	Li	569bi
78	Computer-Aided Kinetic Model Development for Liquid-Phase Processes: Unraveling the Oxidation of Cyclohexane	Kevin	De Ras	569bj
80	Exploring the Role of Process Control and Catalyst Design in Methane Catalytic Decomposition: A Machine Learning Perspective	Yuming	Wen	569ba

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
81	Modeling of Calcium Ferrite Reactions in Chemical Looping Applications of Fossil Fuel Conversion to Hydrogen	Jarrett	Riley	569br
82	Unveiling the Potential of Desert Sand-Derived Mesoporous Silica Supported Nickel-Based Catalysts for Co-Production of H ₂ and Carbon Nanomaterials Via Methane Cracking.	Amanuel Gidey	Gebretatios	569cd
83	Non-Oxidative Direct Conversion of Methane: Improved Reactivity through Linkage with Dehydroaromatization on Mo/HZSM-5	Jinju	Lee	569ce
84	Understanding Methane Reforming on Model Spinel Oxide Catalysts for High Temperature Fuel Cells	Obioma	Uche	569ec
85	Exploring Single Atom Alloy Catalysts for Enhanced Methane Activation to C ₂₊ Products: Insights from Computational Modeling	Manish Kumar	Kothakonda	569dc
86	Liquid Metals As Robust Catalytic and Non-Catalytic Reaction Media for Ethane Dehydrogenation	Aime Laurent	Twizerimana	569dd
87	Effect of Confinement of MFI Zeolites on Pd Catalysts for the Semi-Hydrogenation of Acetylene	Jenna	Vito	569de
88	Multiscale Modelling to Estimate Methane Cracking Conversion in Molten Media	Valentina	Biagioni	569ds
89	Visible Light -Driven Photocatalysis for Suzuki-Type Carbon -Carbon Bond Formation Using Cu ₂ o-Pd Hybrid Nanostructures.	Marimuthu	Andiappan	569bo
90	Ambient Photocatalysis: C-C Coupling of Terminal Alkynes with Hybrid Cu ₂ O-Pd Nanostructures	Marimuthu	Andiappan	569ek
91	Addressing the Heat Management Challenge in the Oxidative Coupling of Methane Reactor Using Fixed-Bed, Multi-Zone Optimization with Side Feeding	Murtaza Ali	Khan	569ey
92	Mitigation of Methane from Low Concentration Sources Using Transition Metal Based Oxidation Catalysts	Nardana	Bazybek	569fo
93	Role of Interfacial Sites during Steam Methane Reforming over Supported Nickel Catalysts	Meghana Sucharita	Idamakanti	569ft
94	Experimental Investigations on LOHC Dehydrogenation Utilizing SOFC Exhaust Gas As Heat Source	Stefan	Pappler	569fz
95	Synergistic Approach for Enhanced Hydrogen Generation from Hydrogen Sulfide Using Nanoparticles for Sulfur Looping: Reactivity Improvement By Structural Tuning.	Tanay	Jawdekar	569ad
97	Highly Dispersed Bimetallic Ir-Co on Leaf-Shaped Carbon Catalysts Derived from Zeolitic Imidazolate Framework for Fischer-Tropsch Synthesis	Yang Sik	Yun	569ae
98	Preparation and Characterization of Fe ₃ O ₄ /Natural Sulfonated Zeolite As Catalysts in the Esterification Reaction of Glycerol to Triacetin	Didik	Krisdiyanto	569af
99	Hydrogenolysis of Glycerol to Propanediols over Platinum Modified Heteropoly Acids Catalysts	Seth	Drahusz	569dt
100	Identifying Zeolite Framework Type Impacts on Epoxide Ring Opening Regioselectivity	Ryan	Burrows	569ag
101	Computational Identification of New Ethylene Oxide Reaction Pathways	Sarah	Stratton	569ao
102	Thermal Runaway of Chemical Reactors: An Experimental, Modeling Andmachine-Learning Investigation	Yang	Xiao	569bb
103	Chemical Reaction and Physical Behavior of Carbonaceous Particles on High-Temperature Liquid Surface	Zhongjie	Shen	569bg
104	Kinetics, Solvent Effects, and at-Line Monitoring of Diphenhydramine Synthesis	Jakub	Konkol	569bm
105	Kinetic Analysis of an Organic Synthesis Using Mechanistic and Statistical Models	Pelin Su	Bulutoglu	569bn
106	Experimental Study of Hydrogen Production from Hydrogen Sulfide through DES-Assisted Sulfur-Iodine Thermochemical Cycle	Andres Felipe	Cardenas	569bp
107	Design and Optimization of an Upscaled Photocatalytic System for Continuous Hydrogen Production Using Solar and LED Light Sources	Suhde	Makki	569bq
108	Immobilization of Nitrogen Doped TiO ₂ on Cylindrical Surface for Continuous Photocatalytic Degradation of Pharmaceuticals.	Rahul	Binjhade	569cj

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
109	Oxygen Vacancies Alter Methanol Oxidation Pathways on NiOOH	Quy	Nguyen	569cs
110	Support Effects in Fischer-Tropsch Synthesis	Truc	Phung	569ee
111	Aldol Condensation of Mixed Oxygenates on Modified TiO ₂ Catalysts	Brandon	Oliphant	569ef
112	Engineering MPC-Assisted Heterojunctional Photo-Oxidation Tailored By Interfacial Design of a P-Modulated C ₃ N ₄ Heterojunction for Improved Aerobic Alcohol Oxidation	Basem	Al Alwan	569em
113	Multiple Chemical Looping Reforming (CLR) Reactors for Blue Hydrogen and Nitrogen Production	Adrian	Irahamna	569fc
114	Deactivation Mechanisms of Iron-Based Catalysts in Fischer-Tropsch Synthesis: Insights from Extended Time-on-Stream Studies and Multi-Technique Analysis	Joshua	Gorimbo	569fd
115	Cobalt and CeO ₂ Modified Ni/Al ₂ O ₃ Catalyst for Steam Reforming of Ethanol	Snigdha	Senapati	569fv
116	Interaction of Water with Molybdenum Carbide Catalyst for Thermochemical Hydrogen Production	Milad	Ahmadi Khoshooei	569fx
117	Machine Learning of NO ₃ ⁻ Reduction Reaction Steps Via Bare Surface D-Band Properties	Daniel	Rivera	569i
118	Exploring the Promotional Impact of Nb and Mo on Vanadium-Based Catalysts for the Reduction of NO _x with NH ₃	Dong Wook	Kwon	569o
119	Fe-Beta Zeolite for Simultaneous NH ₃ -SCR of NO _x and N ₂ O with NH ₃ : Effect of Chemical Composition and Preparation Method on Catalytic Performance	Hwajun	Lee	569s
120	Influence of Zeolite Framework on the NO _x Operating Cycle in Passive NO _x Adsorbers	Marvi	Kaushik	569q
120	Influence of Zeolite Framework on the NO _x Operating Cycle in Passive NO _x Adsorbers	Divesh	Bhatia	569q
121	Elucidation of the Role of Metals in the Adsorption and Photodegradation of Herbicides By Metal-Organic Frameworks	Jacob	Lessard	569ca
122	Investigating Ceria-Doped Titania Nanostructures for Photocatalytic NO _x Degradation	Morgen	Smith	569en
123	CO Reduction to Multicarbon Chemicals on 2D Covalent-Organic Framework-Based Bimetallic Catalysts	Bikun	Zhang	569er
124	Understanding the Fate of Sulfur in Hydrothermal Liquefaction of Sewage Sludge	Julian	Bennett	569ff
125	Investigating the Structure-Performance Relationship of CO Oxidation Reaction through the Fabrication of Cerium Oxide Aerogel-Based Catalysts with Various Structures	Byeongseok	Kim	569ck
126	Composite Photocatalyst Design through Supramolecular Assembly	Kushaan	Bahl	569b
127	Film Theory Solution for Gas Absorption Accompanied By Irreversible (1,1) Order Reactions of a Solute with Two Solvents , Rate Equations and Criteria for Regime Identification	Damaraju	Phaneswararao	569dp
128	Modeling of Gas-Liquid Absorption with an Irreversible (M,N) Order Reaction in Film and Bulk in the Presence of Gas Film Resistance and Criteria for Regime Identification	Damaraju	Phaneswararao	569dq
129	Confined Base Catalysis on Amine-Functionalized Zeolites Prepared Via Direct Synthesis	Illya	Lyadov	569l
130	Scalable Manufacturing of Inorganic Nanoparticles Using a High Temperature Jet Mixing Reactor	Priya	Jana	569y
131	Density Functional Study for Deep Eutectic Solvent Based Solid Polymer Electrolyte	Hayoung	Jeong	569ak
132	Tracking the Structural Evolution of Aei-Type Zeolites Synthesized By Interzeolite Transformation	Zhiyin	Niu	569al
133	Coverage and Facet Dependent Multiscale Modeling of O* and H* Adsorption on Pt and Pt _w Catalytic Nanoparticles	Ayodeji	Omoniyi	569dv
134	Enhancing Zeolite Catalyst Performance By Novel Secondary Growth and Post-Treatment Methods	Kumari	Shilpa	569aq
135	Discrete Homogeneous Catalyst Optimization Using an Autonomous Self-Driving Flow Reactor	Jeffrey	Bennett	569av

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
136	Fabrication of Catalytic Condensers with High-κ Dielectric Materials for Programmable Catalysis	Jaeheon	Kim	569bc
137	Unlocking the Holy Grail of Sustainable and Scalable Mesoporous Silica	Miguel	Jorge	569cb
137	Unlocking the Holy Grail of Sustainable and Scalable Mesoporous Silica	Siddharth	Patwardhan	569cb
137	Unlocking the Holy Grail of Sustainable and Scalable Mesoporous Silica	Tom	Stavert	569cb
138	The Formation Mechanism of Needle-like Beta Zeolite and Its Application in Sorbitol Conversion	Yin	LIU	569cc
139	Using Integrated XPS and DFT+U Approach to Establish Surface-Specific Hubbard-U Corrections and Identify Unknown Shifts on	Shang	Jiang	569cg
140	Surface Acidity Characterization of Phosphotungstic Acid	Hyunju	Lee	569ci
142	Evaluating Rate Potential Enhancements during Concentration-Modulated Dynamic Catalytic Reactions Using Nonlinear Frequency Response Analysis	Fatou Baka	Diop	569k
143	Non-Destructive Routes to Increased Active Site Accessibility in Zeolite Y	Omio Rani	Das	569cn
144	Deconvoluting the Role of Extra-Framework Cations in MFI Zeolite	Jacob	Crouch	569dg
145	Site-Averaged Polymerization Rates for the Phillips Catalyst: Silanol-Geometry Effects on Grafting Probabilities and Site-Specific Turnover Frequencies	Changhae Andrew	Kim	569ei
146	Influence of SO _x on Exsolution Mechanism for Formation of NiFe Nanoparticle	Musa	Najimu	569fw
147	Explaining Mechanism of Zeolite Crystallization Via Data Science: Speed-up Caused By Entropic Effect	Seungbo	Hong	569m
148	Solvent-Induced Active Site Mobilization and Local Electric Field Effects in Lewis Acid-Containing Zeolites	Kelsey	Levine	569u
149	Self-Interaction Correction for Transition Metal Acetate Clusters with Perdew-Zunger Self-Interaction Correction	Priyanka Bholanath	Shukla	569ab
150	Generalized Bulk Descriptors for Predicting O/OH/CH _x Adsorption Energies on Metal Oxides across Varied Coordination Environments	Hyeonjung	Jung	569aw
151	Reactive Active Learning for Catalytic Discoveries: Methane Coupling on Titanium Carbide	Siddarth	Achar	569ax
152	Experimental Investigation of Radial Profiles of Particle Velocity in Gas-Solid Fluidized Beds Using Invasive and Non-Invasive Measurement Techniques	Abdelsalam	Efhaima	569dr
152	Experimental Investigation of Radial Profiles of Particle Velocity in Gas-Solid Fluidized Beds Using Invasive and Non-Invasive Measurement Techniques	Al-Dahhan	Muthanna	569dr
153	Investigating the Fitting Errors of Machine Learning Potentials on the Open Catalyst 2020 (OC20) Dataset	Kareem Ashraf Helmy	Abdelmaqsoud	569ay
154	Computational Design of Catalyst of Desired Adsorption Energy Using Machine Learning	Min	HU	569az
155	Regression and Application of Kinetic Group Additivity Theory for Nitrogenated Hydrocarbons	Jeroen	Aerssens	569bd
156	Prediction of Relative S _N 2 Rate Coefficients in Different Solvents	Jonathan	Zheng	569bh
157	Improving Thermodynamic Accuracy of Small Adsorbed Molecules with Adtherm	Kirk	Badger	569dm
158	Direct Conversion of CH ₄ and N ₂ to Ammonia and C ₂ Products over Metal Composite Oxides at Plasma Conditions	Xinpei	Wang	569bk
159	Compact, Modular Membrane Reactor for High-Efficiency Ammonia (NH ₃) Synthesis at Moderate Temperatures and Pressures	Shoujie	Ren	569bl
160	Highly Active Ammonia Synthesis Catalysts Supported on Promoted Laser-Induced Graphene	Mahdi	Malmali	569at
160	Highly Active Ammonia Synthesis Catalysts Supported on Promoted Laser-Induced Graphene	Fouzia	Nowrin	569at
161	Robust Electrochemical Nitrate Reduction to Ammonia Using Activated Ti ₃ C ₂ T _x Mxene	Yong Hyun	Moon	569cz
162	Identification of Catalytic Nickel Nitride Structures for Plasma-Assisted Ammonia Synthesis	Yiteng	Zheng	569ea
163	Kinetic Modelling of Sr ₃ N ₂ Nitridation for Chemical Looping Ammonia Synthesis	Adaeze	Maduako	569eu

569 - Poster Session: Catalysis and Reaction Engineering (CRE) Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
164	Effect of Citric Acid Addition on Co/Al ₂ O ₃ Catalysts for Ammonia Decomposition	Sujin	Kim	569fr
165	Porous Bimetallic Mesocrystals within Carbon Framework as high-performance bifunctional catalyst	Hiesang	Song	569ga
167	Exploring the Influence of Mixed Metal Oxide Supports in Platinum-Based Catalysts for Enhanced Methylcyclohexane Dehydrogenation	Azadeh	Mehrani	569ch

570 - Poster Session: Advances in Forest and Plant Biomass Utilization

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
15	Utilization of Pistachio Shell Powder As an Additive in Pulp Molded Food Trays: Industrial-Scale Trials	Leila	Fereidooni	570l
169	Effective Conversion of Pentose-Rich Biomass into Furfural By Two-Stage Thermos-Chemical Pretreatment	Seung Hyun	Park	570a
170	Enhanced Enzymatic Hydrolysis Conversion Efficiency of Lignocellulosic Biomass Using Hydrothermal Pretreatment	Byeongyong	MIN	570b
171	Production of Environmentally-Sustainable Bio-Composite for Coating Material Using Lignocellulosic Biomass	Tae Yeon	KIM	570c
172	Preserving the Structure of Softwood Lignin Using Green High-Boiling POINT Solvents	Prajakta	Dongre	570d
173	Biodegradation of Lignocellulosic Bioplastics Synthesized through Regeneration of Biomass Dissolved in Ionic Liquids.	Matthew	Gaughan	570e
174	Role of Catalyst Supports on Transfer Hydrogenolysis of Lignins in Glycerol-Derived Solvents	Bernard	Ekeoma	570f
175	Sustainable Organosolv Pretreatment of Lodgepole Pine with Glycerol-Derived Solvents	Kelechi	Agwu	570g
176	Engineering Sustainable Cellulose Materials with Supercritical Fluid Impregnation	Obiora	Muojama	570h
177	Atomic Decoration of Pt on Co Nanoparticles for Enhancedoxidative Esterification Performances	Ruiqi	Fang	570m
177	Atomic Decoration of Pt on Co Nanoparticles for Enhancedoxidative Esterification Performances	Xin	Zhao	570m
178	TEMPO-Oxidized Cellulose Nanofibril Aerogels for Carbon Capture	Xakin	Ramirez Isunza	570i
179	Investigation of the Mechanism of Cellulose Slow Pyrolysis Via Thermogravimetry and Char Characterization	Katarina	Odak	570j
180	Dynamics of Cellulose & Lignin during Solution Blending	Taiwo	Adesanya	570k
181	Neutron Scattering Insight into Behavior of Lignin in γ -Valerolactone (GVL)	Manjula	Senanayake	570n

571 - Poster Session: Particle Technology Forum

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
96	Innovative Design and Performance Assessment of a Novel Modular Reactor for One-Step Liquid Fuel Production from Stranded Natural Gas with Co-Utilization of Carbon Dioxide.	Tanay	Jawdekar	571i
182	Stability of mRNA and Lipid Nanoparticles Stored in Single-Use Bags	Yuji	Takeda	571r
183	Optimal Control of Batch Crystallization Processes: New Methods for New Challenges	Jeffrey	Ward	571b
184	Polymer-Induced Aggregation of Hematite Under Shear By CFD-DEM Simulations	Lequan	Zeng	571c
185	Investigating the Effect of Temperature on Calcium Sulfate Scale Formation Using a Novel Continuous Stirred Tank Reactor (CSTR) Laser Setup.	Glavic	Tikeri	571d
186	Custom Fluidized Bed Reactor for Atomic Layer Deposition on Li-Ion Battery Cathode Powder	Julie A.	Nguyen	571e
187	Production of Catalyst Tablets: Effect of Powder Properties	Mingzhi	Zhao	571f
188	Evaluation of Microcrystalline Cellulose Powder Flowability with Varying Particle Properties and Moisture Content	Jordan	Monroe	571g
189	Heat Transfer in a Rotary Drum: Effect of Equipment Design	Carlin	Leung	571h
190	Highly Porous Coatings of Metal Nitrides on Electronic Circuitry for Sensing Applications	Adrien	Baut	571j
191	CO ₂ Free Hydrogen Production Via Methane Pyrolysis Using a Moving Packed Bed Approach	Shekhar	Shinde	571k
193	Novel Sorbent Particle for CO ₂ Capture and Utilization	Syedamin	Razavi	571l
195	Particle Molecular Layer Deposition of Amine Films for CO ₂ Capture Materials	Hailey	Loehde-Woolard	571m
196	CaCO ₃ Crystallization in the Presence of Polycarboxylated CMC: Insights into Kinetics, Mechanisms, and Crystal Morphology	Nadhem	Ismail	571n
197	Waste Valorization: High-Purity Syngas Generation from Co-Gasification of Waste Plastics and Biomass Via Chemical Looping Process	Ishani Karki	Kudva	571o
198	Silver Nanoparticle Sensor Array for the Detection of Sars-Cov-2	Benjamin	Lam	571q
199	Dopant Modification to Vanadium Phosphorus Oxide Redox Carrier for Chemical Looping Methanol to Formaldehyde Conversion	Sudeshna	Gun	571p

572 - Poster Session: Process Development

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
192	Decarbonizing the Ammonia Industry Via Biomass Based Chemical Looping Process	Shekhar	Shinde	572f
200	Thermodynamic Optimization of Bimetallic Redox Carriers for Enhanced Process Efficiency in Chemical Looping Technologies for High Purity Syngas and Hydrogen Production	Sudeshna	Gun	572h
201	Energy-Efficient Design of Direct Diethyl Carbonate Production from Ethyl Carbonate and Ethanol	Jeongwoo	Lee	572a
202	Process Intensification of Ether Co-Production Systems	Jeongwoo	Lee	572c
203	Selecting a Commercial Mixing System Suitable for Specific Active Pharmaceutical Ingredient Properties	Alexis	Venere	572b
204	Simulative Investigation of Heat Management in Methanol Synthesis from Carbon Dioxide with Intermediate Condensation	Leon	Kick	572d
205	Developing an Integrated System for Partial Ammonia Cracking and Gas Turbine Combustion	Boon Siong	Neo	572e
206	Methanol Synthesis Mini-Plant with Product Condensation and Reactant Recycle Operated with CO _x	Janne	Reisch	572g
207	Chicken Bone-Based Adsorbent for Adsorption of Metal Ion Liquid Waste	Mayar	Tarek	572n
209	Analysis with Case Studies and Field Data of the Regenerative Thermal Oxidizer Vapor Extraction Systems in Hydrocarbon Contaminated Soil Treatment	Ashok	Naimpally	572j
210	Field Study and Analysis of the Use of Regenerative Thermal Oxidizer Vapor Extraction Systems in Hydrocarbon Contaminated Soil Treatment	Ashok	Naimpally	572k
211	Life Cycle Water Consumption Assessment of Electroplating Rinse Steel Tanks	Ashok	Naimpally	572l
212	Circular Economy Indicators in the Optimal Planning of Energy Systems	Luis Fernando	Lira-Barragán	572i
213	Bench Test and Techno-Economic Analysis (TEA) of MEA-Based CO ₂ Capture for Refinery Emitting Point Sources	Sunghoon	Lee	572m
214	Techno-economic analysis of catalytic methane pyrolysis for CO _x -free hydrogen and high-value carbon production	Panji	Tamarona	572o

573 - Poster Session: Sustainability Science and Engineering, Biorefineries, and Energy

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
16	Optimizing Building Envelope Design for Sustainable Energy Performance	Leila	Fereidooni	573f
194	Perovskite Oxides As New Family of Tunable CO ₂ Sorbents	Seyedamin	Razavi	573s
217	Optimal Design of the Bio-Jet Fuel Supply Chain Under Uncertainty	Shunmei	Wu	729f
218	Techno-Economic Analysis and Life Cycle Assessment of Hydroxylamine Eco-Manufacturing Via Wastewater Electrochemical Reduction	Manish	Mosalpuri	573a
219	Comparative Techno-Economic Analysis of Hydrogen Import Process from Saudi Arabia to Korea	Jihyeon	Son	573b
220	Sustainable Resources for the Synthesis of Aromatic Feedstock	Marvin	Witek	573c
221	Using Electrochemical CO ₂ Reduction to Recover Lithium Carbonate from Spent Lithium-Ion Battery Compounds	Shelby	Atherton	573d
222	Techno-Economic Analysis of Itaconic Acid Production Using a Biorefinery Approach	Miriam Nkechi	Nwaogaraku	573e
223	Redefining Lignin Valorization By Integrating Chemical Depolymerization and Microbial Funneling to Produce Specialty Bioproducts	Sarada	Sripada	573g
224	Techno-Economic Analysis of Green Hydrogen Production in South Korea and Saudi Arabia, Using Monte Carlo Simulation Based on Meteorological Data	Yewon	Kim	573h
225	Advancing Automotive Plastics Recycling through Molecular Recycling Technologies: Innovations for a Circular Economy and Sustainability	Mahshid	Mokhtarnejad	573l
225	Advancing Automotive Plastics Recycling through Molecular Recycling Technologies: Innovations for a Circular Economy and Sustainability	Hendrik	Mainka	573l

573 - Poster Session: Sustainability Science and Engineering, Biorefineries, and Energy

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
225	Advancing Automotive Plastics Recycling through Molecular Recycling Technologies: Innovations for a Circular Economy and Sustainability	Gary	Hawkins	573l
226	A Case Study of Valorizing Landfill Gas to Renewable Energy in an Industrial Zone	Jian	Fang	573j
227	Assessing the Sustainability of Recovering Rare Earth Elements from a Toxic Wastewater Slurry: A Combined Life Cycle Assessment and Technoeconomic Analysis Study	Adam	Smerigan	573k
228	Advancing Green Ammonia Synthesis in Dynamic Offshore Wind Power-to-X Systems	Philipp	Rentschler	573i
229	Exploring the Effect of Facility Construction in Biofuel Life Cycle Analyses through Greenhouse Gas Emissions	Huy	Nguyen	573m
230	Electrically Enhanced Thermochemical CO ₂ Splitting for Fuel Production	Jayni	Hashimoto	573n
231	Tribological Properties of Bio-Based Lubricants Obtained from Castor Oil Fatty Acids and Isopentanol	Francisco Murilo	Tavares de Luna	573o
232	Studying Precipitation Rates Under Semicontinuous Operation of a CO ₂ Mineralization Reactor Utilizing Flue Gas and Produced Water	Quinn	Bennett	573p
233	"a Review of Existing Data and ASTM E681 Testing for Flammability Limits of Hydrofluorocarbons and Their Mixtures: Towards a Predictive Model"	Kevin	Turner	573q
234	Excess Absorption of Type II Porous Liquids for CO ₂ /H ₂ Separation	Lu	Lu	573r
235	Assessing and Unlocking the Potential for Carbon Mineralization in Peridotite Rock for Carbon Dioxide Removal	Soyoung	Choi	573t
236	Surface Wettability and Pore Size Effect on CO ₂ Diffusivity in Water-Saturated Kaolinite Nanopores	Minjunshi	Xie	573u
237	Hydrogen Storage in Silica-Kaolinite Shale and Its Impact on the Integrity: Molecular Modeling and Experimental Investigation	Alankaa	Al-Harbi	573v
238	Optimizing the Reverse Supply Chain Network for Photovoltaic Panels Under Uncertainty	Funda	Iseri	573w
239	Directing Climate Mitigation throughout Energy Transformation: Feasibility of Synthetic Methane Integrated with Direct Air Capture	Changgwon	Choe	573x
240	Optimal Compressor Operational Policies for LNG Storage Tanks Under Unloading Mode Operation: A Numerical Approach	Suraj Prakash	Singh	573y
241	Understanding Microbial Processes of Algal-Fixed Carbon Using a Co-Culture Porous Microplate	Hyungseok	Kim	573z
243	Fabricating an Economical and Sustainable Fermentation Medium to Produce Drop-in-Fuel and Value-Added Bioproducts from Alternative Feedstocks	Shraddha	Maitra	573ab
244	Systematic analysis on the energy transition pathways for sustainable natural gas production	Meire Ellen Gorete	Ribeiro Domingos	573ad

574 - Poster Session: Transport and Energy Processes Division

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
166	Polarized Composite of SnO ₂ @BaTiO ₃ Microsphere as an effective Li storage with Enhanced Electrochemical Performance	Hiesang	Song	574h
249	Biomass Gasification Research for Hydrogen and FT-SAF Production	Jihong	Moon	574a
250	Effect of Ethanol on the Drying Rate and Rheological Properties of Lithium-Ion Battery Anode Slurries	Kyu	Hyun	574b
251	Comparison of Gasification Syngas Composition According to Physical Properties and Type of Biomass	Sang Jun	Yoon	574c
252	The Evolution of the Pore Structure-Transport Relationship in Shales Following Microwave Treatment	Agnes	Anuka	574d
253	Molecule Single-File Diffusion through Macroscopic Length of Individual Carbon Nanotube	Jingwei	WU	574e
254	Experimental Characterization of Elastomers for the CO ₂ transport Applications	Virginia	Signorini	574f
255	CO ₂ Impurities Impact on Methanol and Methane Synthesis	Haroun	Mahgerefteh	574g

735 - General Poster Session

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
79	Biological Approaches for Beverage Wastewater Treatment and the Production of Single Cell Protein: A Life Cycle Assessment	Yuming	Wen	735j
208	Iron Magnesium Coating Chicken Bones for Removal of Copper from Water	Mayar	Tarek	735bh
257	Understanding the behavior of Zinc slurries in Zn-MnO ₂ Alkaline Batteries	Devadharshini	Kathan	735a
258	An Experimental and Modeling Study on Gas Solubility and Transport in Ionic Liquids Employed As Sweep Solvents for Membrane Contactor Reactor Applications	Mohammad	Bazmi	735c
259	Silicon-Vanadium Carbide Based Composite Anodes and Liquid Electrolytes for High-Performance Li-Ion Batteries	Rohit	Choudhury	735d
260	Relationship between the Polymer Blend and Antimicrobial Activities Against <i>Staphylococcus Aureus</i>	Khoa	Tran	735e
261	Ionic Drug Transport in Charged Nanostructured Biosponge Polymers to Reduce Chemotherapy Toxicities	Hee Jeung	Oh	735f
262	Design and Optimization of Carbon-Coated Silica Nano Spring System for Solar-Driven Evaporation for Water Desalination	Seokjhin	Kim	735g
263	Engineering Silk Fibroin-Based Ionogels of Tuneable Physicochemical and Rheological Properties	Talia	Shmool	735h
264	Squid-Inspired Materials with Tunable Heat-Managing Properties	Aleksandra	Strzelecka	735i
265	Circularizing Animal Wastewaters: Spatial Mapping of Swine Wastewater and Associated Resource Recovery Potential in the United States	Madison	Kratzer	735k
266	Advancing Plant Cytochrome P450 Functionality in Yeast	Shanhui	Xu	735l
267	Computational Strain Design and Resource Allocation Using Multi-Objective Modular Cell Design Optimization	Galib Hassan	Khan	735m
268	Hydrogen from Air (SAWH ₂): A Decentralized Sorption Based Atmospheric Water-Hydrogen Production Device	Joseph Phelim	Mooney	735n
269	Exploring the Origin of Hysteresis in Plastic Crystal Compounds for Engineering Pressure Tunable Thermal Energy Storage	Chase	Somodi	735o
270	Reactive Wetting between Gallium-Based Liquid Metals and Cu, Ni, Ti, and Au Substrates	Lucas	Oelkers	735p
271	Production of Curcumin Nanoparticles Via Self-Assembly in Supersaturated Solution	Negin	Ammari	735q
272	Characterization of a Mixed Flow Impeller in a Culture Medium	David	Posadas Navarro	735r
273	Optimizing Energy Production from Hydrothermal Gasification of Blackwater	Andrew	Wagner	735s
274	Optimizing Lithium Carbonate Crystallization Via a Novel Sieve Technology	Mohammad J	Seyed Sabour	735t
275	Contextualising Urban Sanitation Solutions through Complex Systems Thinking: A Case Study of the South African Sanitation System	Craig	Sheridan	735u
276	Integrated Combinatorial Synthesis, Characterization, and Test Platform for Lithium-Ionbattery Cathode Materials	Yunhao	Xiao	735v
277	Molecular Dynamics Study of Methane Hydrate Dissociation Under Silica Confinement: Role of Salinity	Bhavesh	Moorjani	735w
278	Inferring the Shape of an Object inside of a Draining Tank Via Bayesian Statistical Inversion	Gbenga	Fabusola	735x
279	Stickiness Measurements in Relation to Particle Process Setting	Gabriel	Meesters	735y
280	Unraveling Dynamic Surface Restructuring and Intricate Reaction Networks in Catalysis Via Integrated DFT-Microkinetic Modeling	Kunran	Yang	735z
281	Real-Time Irrigation Scheduling in Precision Agriculture: Comparison of Simulation-Based Optimization Approaches	Q. Peter	He	735ac
281	Real-Time Irrigation Scheduling in Precision Agriculture: Comparison of Simulation-Based Optimization Approaches	Jisung	Jang	735ac
282	Molecular Simulation Methods to Probe Dynamics and Thermodynamics in Nucleoprotein Systems	Lev	Levintov	735ab
283	Sensor-Driven Early Gas Leakage Detection and Localization in Storage Facilities	Zheyu	Jiang	735aa
284	Deciphering the Sequence-Dependent Relations between Single-Chain Protein Conformations and Their Condensed Phase Material Properties	Dinesh	Sundaravadivelu Devarajan	735ad

735 - General Poster Session

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
285	Accelerating Simulation of Materials with Machine Learning	Ni	Zhan	735ae
286	Advancing Separation Systems of High Brine Concentrations through Refined Thermodynamics and Process Intensification	Nazia	Aslam	735af
287	Zero-Dimensional Pores in Graphene for Ion-Ion Separation	Kumar Varoon	Agrawal	735ag
288	Direct Scale-up of a Dry Granulation Process Using a Material Lean Approach at Lab-Scale	Artur	Saramago	735ai
289	Population Balance Modeling of the Impacts of Batch Size, Flow Rate, and Imperfect Mixing during Nanomilling of Drug Suspensions	Hamidreza	Heidari	735aj
290	Renewable Routes to Paracetamol: A Green Chemistry Analysis	Jimin	Park	735ak
291	Dissolution and Friability Analysis of Commercial and Lab-Developed Apap Tablets	Uche	Chukwuemeka	735al
292	Evaluation of Powder Triboelectric Properties: A Must Have for Material Optimization	Aurelien	Neveu	735am
294	Development of a Digital Twin for Dynamic Control of Crystalline Products in a Continuous Purification Process Using Pharmacy	Inyoung	Hur	735ao
295	Smart Engineering Processes for Cbrn Protection: Configuration Pathways, Effectiveness and Limits	Youcef	Serhane	735ap
296	Upscaling of Lithium-Ion Battery Models: From the Pore-Scale to the Cell-Scale through Homogenization.	Alessio	Lombardo Pontillo	735aq
297	A Systematic Model-Based Estimation of State of Health and State of Charge for Second-Life Li-Ion Batteries	Md Emdadul	Haque	735ar
298	Advancing High Energy Dense Li-S Pouch Cell through Form Factor Optimization	Sayan	DAS	735as
299	Gas Diffusion Electrode Improves Kinetics of Rechargeable Aluminum-CO ₂ Batteries.	Gustavo	Diaz	735at
301	Study of Galvanic Corrosion of Mild Steel Coated with AZ91D Magnesium Alloy By Comsol Multiphysics	Sk. Moumita	Manjur	735av
302	Unusual Transport of Phenolic Compounds in Polymer Membranes.	Woo Jin	Jang	735aw
303	Selective Separation of Precious Ions from Water By Mxene Free-Standing Membranes	Ahmed	Al Mayyahi	735az
304	A Population Balance Based Model to Optimize Coagulation-Flocculation	Diogo	Abreu	735ba
305	On Electrocoagulation and Novel Hybrid Coagulation Method for Enhanced NOM Removal in Drinking Water Treatment.	Ondrej	Gebousky	735bb
306	To Investigate the Effect of Small Molecule Dopants (SMDS) on the Synthesis/ Electrical /Mechanical/Electro-Mechanical/Self-Healing Properties of PANI/Paampsa System	Arya	Ajeev	735bd
307	Metal-Free Precision Bottlebrush Polymers with Ionic and Fluorinated Moieties for MRI Applications	Nduka	Ogbonna	735be
308	Streamlining Bone Scaffold Production: Automation and Innovative Approaches	Yasser	Ahmed	735bf
309	Adsorption of PFAS Using Ion Exchanged BEA Zeolite	Charles	Ponge	735bg
310	Fired Heater Modeling Using Htri	Avinashkumar	Karre	735bj
311	Optimizing Vaccine Distribution Using Attainable Region Theory	Diane	Hildebrandt	735bl
312	Machine Learning Predictive Modelling of Velocity and Turbulent Kinetic Energy of a Bladeless Wind Turbine Implementation in an Urban Environment	Abdulfatai	Faro	735bm
312	Machine Learning Predictive Modelling of Velocity and Turbulent Kinetic Energy of a Bladeless Wind Turbine Implementation in an Urban Environment	Aonullahi	Adebayo	735bm
313	Template-Based Sentence Generation for Variable Definition Extraction from Papers on Chemical Processes	Kotaro	Nagayama	735bn
314	Probing RNAs and RNA Binding Proteins in the Pathogenesis of <i>Multiple Sclerosis</i>	Vailankanni L.	Rodrigues	735bo
315	De Novo Design for Small Molecule Binding and Sensing	Linna	An	735bp
316	Zinc Oxide Nanoparticles As Nanofertilizers: Effect on Morpho-Physiological Traits and Antioxidant Properties of Mustard (<i>Brassica juncea</i>)	De'Zarae	Guthrie	735bq
317	Ni/CaO-γ-Al ₂ O ₃ Catalyst Was Investigated for the Steam Reforming of Toluene	zhi Di	Du	735br

735 - General Poster Session

Wednesday, October 30, 2024 3:30 PM - 5:00 PM

Exhibit Hall GH, San Diego Convention Center

BOARD NUMBER	Title	First Name	Last Name	Paper Number
318	Constructing Customized Pano-Structured Material Systems for Enhanced Sustainability and Health Monitoring	Yuanwei	Li	735bs
319	Fluorescent Nanothermometry Enhanced Laser Tissue Soldering for Minimally Invasive and Robotic Surgery of Fragile Tissues	Oscar	Cipolato	735bt
320	Application of Modified Meshgraphnets for Subsurface Prediction during CO ₂ Storage	Chung	Shih	735bv
321	Protein-Based Isocratic Separation of Rees Using Newly Identified Calcium-Binding Proteins.	Farid	Khoury	735bx
322	Improved Material and Design Considerations of Vanadium Redox Flow Battery for High Power Applications	Laxman Kumar	Kundarapu	735by
323	Removal of Organic Matter from Ceramic Wastewater Using Coagulation Process By Iron (III) Chloride	Ahmed	Mahmoud	735bz
323	Removal of Organic Matter from Ceramic Wastewater Using Coagulation Process By Iron (III) Chloride	Mohamed	Mostafa	735bz
323	Removal of Organic Matter from Ceramic Wastewater Using Coagulation Process By Iron (III) Chloride	Robert	Peters	735bz
323	Removal of Organic Matter from Ceramic Wastewater Using Coagulation Process By Iron (III) Chloride	Shimaa R.	Hamed	735bz
323	Removal of Organic Matter from Ceramic Wastewater Using Coagulation Process By Iron (III) Chloride	E.	Khamis	735bz