

## # 6 - Meet the Faculty and Post-Doc Candidates Poster Session

(sorted by last name)

Sunday, November 10, 2019 1:00 PM - 3:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
419	Gas Hydrates Research: From Fundamental Science to Engineering Applications	Ahmad	Abdul Majid	6iv
6	Conversion of Waste Biomass into Bioproducts (Bioenergy, Biomaterials, Biochemicals)	Ezinne	Achinivu	6i
408	Process Control and Developpement for Energy-Efficient Applications	Esma Ines	Achouri	6in
417	CO <sub>2</sub> Utilization through Dry Reforming of Methane Reaction	Shaik	Afzal	6ih
237	Ionic and Electronic Transport Properties in Covalent Organic Framework and Nanomaterial	Ankit	Agrawal	6fi
8	Exploring the Design Space of Living Systems: Experimental and Theoretical Tool-Kits for Multi-Functional Materials	Symone	Alexander	6n
276	Nanotechnology and Neurotoxicity: Exposure to Ultrafine (nano) Particles and its Impact on the Human Brain: Case Studies for Cooking and Diesel Engine UFPs	Mehdi	Amouei Torkmahalleh	6kh
246	Learning from Nature: Rational Design of Multifunctional Hybrid Materials	Hyosung	An	6fs
303	Molecular-Based Modeling of Polymer Dynamics for Material Design and Processing	Marat	Andreev	6hn
75	Dynamic Heterogeneous Catalysis to Enhance Turnover Frequency Via Surface Resonance	M. Alexander	Ardagh	6bk
22	Hierarchical Self-Assembly and Biological Interactions of Functional Synthetic and Natural Supramolecular Systems	Herdeline Ann M.	Ardoña	6kk
136	Sustainability in Process Systems Engineering	Styliani	Avraamidou	6dy
12	Molecular Tension Sensors in Protein Hydrogels	Joshua	Baccile	6v
88	Catalyst Design through Simulations and Machine Learning	Seoin	Back	6ci
213	A Novel Route for the Flexible Preparation of Hydrocarbon Jet Fuels and Valuable Chemicals from Biomass-Based Platform Chemicals: A Case of Using 2, 3-Butanediol As a Feedstock	Yuchen	BAI	6ds
38	Advancing Technologies for Prenatal and Women's Health	Christina M.	Bailey-Hytholt	6af
80	Precision Synthesis to Control Catalyst Surface Structures for Improved Reactivity and Performance	Madelyn R.	Ball	6bq
48	Soft, Flexible Tissue-Integrated Chemical Sensors: From Wearable to Implantable Neural Systems	Amay J.	Bandodkar	6aj
82	Development of Thin Film Deposition & Etching Processes for Challenging Materials	David	Barlaz	6bu
49	Lung Surfactant Inhibitors and Their Effect on ARDS (Acute Respiratory Distress Syndrome)	Sourav	Barman	6ak
50	Dilational Rheology of Lung Surfactant Inhibitors and Its Effects on Acute Respiratory Distress Syndrome	Sourav	Barman	6fh
122	Predictive Descriptors for the Targeted Synthesis of Solid-State Materials	Christopher J.	Bartel	6db
211	The Future of Concentrated Solar Thermal - Smart Selection of Materials for Hydrogen Production and Energy Storage	Alicia	Bayon	6em
126	Corrosion Mitigation and Wastewater Treatment	Zineb	Belarbi	6dn
66	Developing Methods to Accelerate the Design, Development, and Implementation of Therapeutics, Materials, And Equipment for Diseases with Urgent Unmet Clinical Needs	Donald	Belcher	6lj

BOARD NUMBER	Title	First Name	Last Name	Paper Number
265	Low-Cost, Scalable, and Rapid Platforms in Ultrathin Materials Synthesis for Water and Energy Technologies	David S.	Bergsman	6gj
250	3D Printing of Polylactic Acid Mixed with Wood	Samarthy	Bhagia	6fj
318	Structure-Property-Dynamics Relationships in Multi-Phasic Polymers: Leveraging Self-Assembly of Compatibilizers	Avanish	Bharati	6hq
123	Understanding Multimodal Interactions through Deep Neural Networks and Statistical Mechanics	Camille	Bilodeau	6cn
53	Engineering Microsystems for Regulating Cellular Behavior: From Implantable Drug Factories to Novel Platforms for Single-Cell Genomics	Suman	Bose	6an
285	Meet the Faculty: Investigating the Properties of Nanoparticles Containing Fullerene-like Molecules	Kimberly	Bowal	6gv
214	Engineering Multifunctional Nanomaterials for Energy and the Environment	Michael	Bozlar	6lf
37	Integrating Molecular Modeling with Experimental Work to Propel a Bioproducts Pipeline	Emma C.	Brace	6o
103	Engineering the Catalytic Environment: Synthetic, Mechanistic, and Spectroscopic Approaches for Developing Design Principles	Daniel T.	Bregante	6cb
424	Membrane Materials and Transport Studies for Sustainable Water, Energy and Life Sciences: <i>From Fundamentals to Applications</i>	Ngoc	Bui	6jc
125	Heterogeneous Electrocatalysis: Developing Strategies to Engineer Industrially Relevant Catalysts from Fundamental Activity Trends	Michaela	Burke Stevens	6di
94	Rational Design of Alloy Catalysts By Building Atomic-Scale Structure-Property-Activity Relationships	Liang	Cao	6bb
64	Understanding Nucleation and Crystal Growth of Organic Molecular Materials with Application to Pharmaceutical Manufacturing	Gerard	Capellades	6ba
240	Role of Species Transport on the Stability of Interfaces	Vineeth	Chandran Suja	6fc
308	Functional Polymers for Molecular and Materials Design	Alice B.	Chang	6hv
278	Beyond Lithium Aqueous Electrochemical Energy Storage	Daniel S.	Charles	6gk
130	Charge Storage and Transport in Electrochemical Science: From Bulk to Interfaces	Chia-Chin	Chen	6de
314	Exploring the Structure of Gradient Double Network Gels	Pandiyarajan	Chinnayan Kannan	6ko
234	Intelligent Systems, Active Colloids, and Advanced Responsive Materials	Nicholas G.	Chisholm	6fd
259	Catalytic Porous Materials with Tailored Nanostructures for Selective and Sustainable Chemical Processes	Hong Je	Cho	6ga
241	Silk-Based Materials: A Sustainable Route Towards Multifunctional Material Applications	Jaewon	Choi	6fk
252	Bio-Inspired Soft Electronics	Alex	Chortos	6fw
228	Electrokinetically enhanced particle focusing in Non-linear microfluidic flows	A.	Choudhary	6lv
304	Molecular-Scale Engineering of Charge-Containing Polymers and Electrochemical Interfaces	Snehashis	Choudhury	6hp
111	Computational Protein Design Using Optimization Programs and Force-Field Calculations	Ratul	Chowdhury	6ki
15	Molecular Design Principles for Chemically Tunable Biomaterial Platform Technologies	Crystal K.	Chu	6ab
231	Quantifying Interfacial Transport Phenomena for Environmental and Biochemical Systems	Henry C. W.	Chu	6ey

BOARD NUMBER	Title	First Name	Last Name	Paper Number
40	Force Response Defines Both Subcellular Architectures and Dynamic Protein Binding	Peter	Chung	6kt
78	Discovery and Optimization of Processes and Catalysts for the Organic Electrosynthesis of Carbon-Neutral Fuels and Chemicals	Ezra L.	Clark	6bn
51	Developing Tools for Emerging Liquid Biopsy Applications	Jose C.	Contreras-Naranjo	6al
210	A Structured Approach to the Design and Optimization of Sustainable Energy Systems	Nathanial J.	Cooper	6ef
271	Rational Synthesis and Assembly of Doped Nanomaterials for Quantum and Optoelectronic Applications	Matthew	Crane	6gy
273	Liquid Metal Encapsulation: Towards Next Generation Flexible Electronics	Megan A.	Creighton	6hb
267	Electrochemical and Optoelectronic Transformations in Dynamic Semiconductor Nanomaterials	Clayton J.	Dahlman	6go
133	Design of Electrochemical Biosensing Strategies Toward High-Sensitivity, Non-Fouling, Multiplex Point-of-Care Systems	Yifan	Dai	6jy
108	Reproduce - Remediation and Production Using Computational and Electrochemical Approaches	Damilola A.	Daramola	6co
209	Sustainable Energy Production from Renewable and Fossil Fuels	Saikat	Das	6ee
221	Complex and Biological Fluids	Debasish	Das	6ew
223	Numerical Simulation based Design of Point of Care Diagnostic Devices	Debayan	Das	6eu
311	3D Printed Reconfigurable Liquid Crystal Elastomers Via Dynamic-Covalent Bonds	Emily	Davidson	6id
33	Engineering Microorganisms and Their Environment for Increased Performance in Biorenewable Applications	Kirsten	Davis	6aa
287	Plant Genome Engineering with Nanotechnology for Agricultural Applications	Gozde Sultan	Demirer	174ae
93	Rational Catalysts and Process Development for Light Hydrocarbons Upgrading from Natural Gas/Shale Gas	Weijian	Diao	6cd
24	Quantitative Single-Cell Analysis of RNA Regulation at the Single Molecule Level	Fangyuan	Ding	6kr
120	Modeling and Optimization for Process System Engineering Problems	Yachao	Dong	6cy
3	Biomaterial Investigation and Development for Biomedical Advancement	Antonio C. F.	dos Santos	6e
68	Bionanotechnology: DNA Nanotechnology-based Molecular Devices, Bio-sensors, and Hybrid Materials for Biological and Nanophotonic Applications	Palash	Dutta	6lu
218	Dynamics, Transport, and Self-Assembly in Flowing Polymeric Liquids	Sarit	Dutta	6eq
77	Sustainable Fuel and Chemical Synthesis Via Catalytic Valorization of Abundant and Renewable Resources	Nathaniel	Eagan	6bm
247	Rational Design of Advanced Materials and Membranes for Energy, Separations and Catalytic Applications	Sameh	Elsaidi	6fu
305	Optimizing the Properties of Advanced Materials through Molecular Design	Bassil	El-Zaatari	6hr
261	Controlling Organization and Effects of Nanoparticles on Polymer-Nanoparticle Composites	Hamed	Emamy	6gd
436	Novel Approaches for Prebiotic Detection and Control of Microbial Communities	Fatima	Enam	6jp

BOARD NUMBER	Title	First Name	Last Name	Paper Number
254	Molecular Engineering Approach for the Development of Advanced Functional Materials: Engaging Students Through Impactful Research	Anthony	Engler	6kc
282	Enhancement Routes of Corrosion Resistance in Steel-Reinforced Concrete By Using Nanomaterials	Arash	Etemad	6gh
415	Detailed Stress Analysis of Floating Platforms	David	Etemad	6it
291	Deep characterization boosted next-generation high-performance energy storage systems	Chengcheng	Fang	6lp
312	Granular Composite-Enabled Multi-Scale Dynamic Responsive Materials	Yin	Fang	6ie
65	A Polymeric Reactor for the Synthesis of Superparamagnetic-Thermal Treatment of Breast Cancer	Roa'	Fardous	6as
132	Combining Advanced Materials and Manufacturing and Electrochemical Engineering for Building a Sustainable Future	Jeremy T.	Feaster	6dh
45	Molecular Engineering Approaches Towards Platform Immuno-Biomaterials	Owen S.	Fenton	6ln
143	Electrochemical Engineering for Energy, Environment and Separation Applications	Tao	Gao	6en
404	Accelerating Chemical Discovery and Process Development with Theoretical Models and Machine Learning	Hanyu	Gao	6ig
112	Data-Driven Modeling and Control of Batch and Batch-like Processes	Abhinav	Garg	6cp
104	First-Principles Approaches for Catalyst Design: Novel Descriptors and Strategies for Materials Discovery	Joseph	Gauthier	6cc
139	Energy Storage and Conversion with Organic Molecules and Advanced Porous Electrodes	Michael R.	Gerhardt	6ec
84	Fixed Feed Temperature Program Modulation (FFTPM) - a Versatile Method for Extracting Adsorption Thermodynamics for Weakly Adsorbing Systems over a Range of Adsorbates	William T.	Gibbons	6bz
258	Advancing Nanomaterials for Energy and Water Applications Using Atomistic and Quantum Chemical Simulations	Ananth	Govind Rajan	6fz
115	Studying Soft Materials in- and out-of-Equilibrium Using Analytical and Numerical Field Theories	Douglas	Grzetic	6cs
238	From Understanding the Transport of Complex Fluids to Development of Liquid Lenses	Shreyash	Gulati	6fa
142	Advancing the Development of Fuel Flexible Combustion, Compact Energy Systems, and the Sustainability Analysis Methods	Sampath	Gunukula	6ei
288	Synthesis and Characterization of Perovskites	Atefe	Hadi	6kv
55	Computational Modeling in Cancer Systems Biology: Stochasticity, Complexity, and Multiscale Dynamics in Disease Progression and Drug Response	Leonard Alfredo	Harris	6ap
292	Novel Nanostructured Transition Metal Oxides for Catalysis.	Yulian	He	6lr
81	Reshaping the Carbon Cycle with Catalysis: Selective Activation of Chemical Bonds for Producing Carbon Neutral Fuel and Chemicals	Alyssa	Hensley	6bs
432	Synthesis of Environmentally Friendly and Sustainable Multi-Functional Surfaces and Interfaces	Sebastian	Hernandez	6ix
135	Fabrication of Conducting Polymers and Superconductors Using Chemical Vapor Deposition Methods for Energy and Electronic Application Devices	Meysam	Heydari Gharahcheshmeh	6dx

BOARD NUMBER	Title	First Name	Last Name	Paper Number
92	Bimetallic Catalysts for Internal Steam Reforming of Methane at Low-Temperature for High Fuel Utilization of Proton-Conducting Ceramic Fuel Cells	Kyungpyo	Hong	6bx
36	Constitutive Modeling of Complex Biomaterials	Jeffrey S.	Horner	6j
110	Designing the Structure and Function of Soft, Complex Materials with Computational Modeling	Michael P.	Howard	6jx
28	Theory and Modeling of Biopolymers and Bio-Inspired Soft Materials	Kai	Huang	6ks
20	Fabrication of Highly Sensitive LSPR Biosensor for the C-Reactive Protein (CRP) Detection Based on the Immunocolloidal Gold Nanoparticles	Yun Suk	Huh	6g
414	20-Plus Years after the Pioneering Work at the University of Oklahoma-Chemical Engineering: Capillary Condensation of Light Hydrocarbons in MCM-41 Type Nano-Porous Media	Mariana	Ioneva	6is
19	Multiscale Modeling for the Design of Functional Soft Materials	Nicholas	Jackson	6jz
226	Investigating Yielding Dynamics and Fracture Mechanics in Soft Materials	Alan Ranjit	Jacob	6kx
25	Electrochemistry Enabling New Frontiers in Biomaterials Engineering	Sina	Jamali	6p
26	Interactive Characterization of Biomaterials in Simulated Biological Environment	Sina	Jamali	6x
27	Chemically and Electrochemically Interactive Characterization of Biomaterials <i>in Vitro</i>	Sina	Jamali	6dm
97	Development of n-Doped Oxides As an Electron Rich Support: Bridging Homogeneous and Heterogeneous Catalysis	Juan	Jimenez	6cg
309	Towards Sustainable Polymers through Integration of Dynamic Covalent Chemistry and Advanced Processing	Kailong	Jin	6hz
90	Design of Dynamic and Solvated Reaction Environments for Enhanced Conversion and Selectivity with Heterogenous Catalysts	Jennifer	Jocz	6kg
284	Interfacial Molecular Engineering of Bio-Inorganic Systems from Aqueous Molecules to Assembled High Order Functional Materials	Tyler D.	Jorgenson	6gs
70	Molecular Modeling and Machine Learning for Catalysis and Separations	Tyler R.	Josephson	6bd
99	Electrosynthesis for Sustainable Chemical Production	Matthew	Jouny	6bo
102	One-Step Synthesis of Oxide Catalysts Using Aerosol Reactors for Environmental Applications: Theoretical and Experimental Study	Sungyoon	Jung	6bw
144	Illuminating Solid-Water Interfacial Processes at Nanoscale for Sustainable Environmental Remediation and Resource Recovery	Haesung	Jung	6kj
253	Scalable Synthesis of Nano- and Micro-Scale Materials for Energy Applications	Clayton	Kacica	6fo
420	The Design, Synthesis and Testing of Advanced High-Performance Ionene Polymers As Gas Separation Membranes	Irshad	Kammakakam	6iw
204	Energy Conversion and Storage	Yijin	Kang	6ej
302	Programmable Deformation and Assembly of Soft Active Materials	Ji-Hwan	Kang	6hm
113	Optimization and Control of Chemical Process Systems Under Uncertainty	Rohit	Kannan	6cq
232	Microbial Biofilm Processes: Multiscale Modeling, Simulation, and Visualization	George E.	Kapellos	6ez

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121	Combining Computational Chemistry and Advanced Characterization for Process Optimization and Intensification	Adam	Karcz	6da
410	Review of Recent Trends in Sulfur Unit Capacity Expansion Projects	Avinashkumar	Karre	6ij
406	Leveraging Scale-Appropriate Principles of Metal-Oxide Reaction Engineering and Particle Technology Science for Energy Conversion Solutions	Mandar	Kathe	6ik
293	Dynamics of Carbonaceous Nanoparticles: Climate Impact & Fire Detection	Georgios A.	Kelesidis	6hd
129	Developing Electrochemical-Based Predictive Battery Health Monitoring for Future Battery Management Systems	Saeed	Khaleghi Rahimian	6df
220	Structure, Rheology and Processing of Complex Fluids Towards Scalable Manufacturing of Functional Devices	Sunilkumar	Khandavalli	6ev
423	Rational Design of Nanofiltration Membranes for the Removal of Trace Organic Contaminants from Waste Water Based on Single-Molecule Dynamics and Heterogeneity	Daniel	Kienle	6jb
21	Multiscale Biomechanics of Platelet-Driven Blood Clot Contraction and Intracellular Mechanisms of Its Termination	Oleg	Kim	6y
307	Microfluidic Processes to Engineer Hydrogel Particles and Their Applications in Biomedical Engineering	Jae Jung	Kim	6hu
260	Building Autonomous Nanomachines at the Interface of Colloids and Electronics	Volodymyr	Koman	6gb
34	Nano-Optical and -Electronic Devices with Machine Learning for Biomarker Discovery and Diagnostics in Personalized Medicine	Lee	Korshoj	6a
56	Engineering the Tumor Microenvironment	Andreas	Kourouklis	6aq
407	Online Process Optimization of Complex Cyber-Physical Systems	Dinesh	Krishnamoorthy	6il
229	Recycle, micromixing and particle migration in a microchannel	T.	Krishnaveni	6ly
215	Probing Hydrogen activation to solve current energy challenges	K.B. Sravan	Kumar	6lz
256	Chemomechanical effect affects ductile mode material removal in slicing silicon wafers for photovoltaics	Arkadeep	Kumar	6li
426	Comparative Studies of Silica Gel and MCM-41 after Modifications for Carbon Dioxide Adsorption at High Temperature	Dinesh	Kumar	6jg
35	Biosafe, Eco-Friendly Levan Polysaccharide Toward Transient Electronics	Kiyoon	Kwon	6c
39	Biofilm Prevention By UVC Side Emitting Optical Fibers	Mariana	Lanzarini-Lopes	210a
96	Process-Informed Design of Electrocatalysts for Sustainable Chemical Transformations	Gastón O.	Larrazábal	6ck
131	Electrocatalysts and Gas Diffusion Electrodes for Vapor-Phase Carbon Dioxide Electrolyzers and Hydrogen Fuel Cells	Dong Un (Daniel)	Lee	6dg
280	Understanding of Nanoparticle Self-Assembly Mechanisms and Its Applications to Energy Storage and Bio-Medical Applications	Jaewon	Lee	6ha
18	Lipid Nanoparticles for Highly Efficient Non-Viral Gene Editing	Jie	Li	6ag
31	Tailoring Polymer Chemistry for Biomass-Derived Materials: From Artificial Plant Cell Wall to Fungible Bioproducts	Qiang	Li	6t
46	Defining Capture and Release Mechanisms of Biochemical Ligands in Multifunctional Biomaterials to Control Cell Function	Linqing	Li	6lo
47	Living Biodevices for Precision Medicine:from Morphing Electronics to Medical Nanorobots	Jinxing	Li	6ai

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127	Nanoscale Design of Electrocatalysts for CO <sub>2</sub> -to-Fuels Powered Using Renewable Electricity	Yuguang (Chris)	Li	6do
207	Functionalized Materials for Sustainable Energy Applications: Structure and Reactivity	Gengnan	Li	6kp
269	Charge Transport in Self-Assembled Biomolecular Systems	Bo	Li	6gq
296	Engineering Lipid and Polymer-Based Nanomaterials for Drug, Protein and Gene Delivery	Yamin	Li	6hi
427	Application of MOFs As Adsorbents in the Field of C <sub>8</sub> aromatics Adsorption Separation	Lunxi	Li	6jh
274	Design of Flow Reactors and Functional Nanomaterials for Energy & Photocatalytic Applications	Ioannis	Lignos	6kb
200	Winning the Energy Dilemma: Carbon-Free Energy and Environmental Sustainability	Simona	Liguori	6dr
30	Biocompatible Zwitterionic Polymers for Medical Applications	Xiaojie	Lin	6m
239	Flow of Soft Matter in Complex Geometries	Yu-Jiun	Lin	6fe
72	Scaling up First Principle Simulation in Realistic Environment: Solvent Effects and Excited State Properties in Computational Catalysis	Fang	Liu	6bg
114	Computational Design and Development of Advanced Catalytic Materials	Mingjie	Liu	6cr
275	Multi-Sensor System for Complex Chemical Environment Detection	Yixin	Liu	6gg
281	Colloidal Electronic Cells As Building-Blocks for Synthetic, Tissue-like Scaffolds	Albert Tianxiang	Liu	6gc
421	Hybrid Membranes for Challenging Energy Separations	Yang	Liu	6iz
140	Materials for Energy Storage Applications: Fundamental Insight for Rational Design and Development	Jeffrey	Lopez	6ed
29	Understanding Physically Crosslinked Polymer Networks to Rationally Design Hydrogel Biomaterials	Hector	Lopez Hernandez	6l
141	Realizing CO <sub>2</sub> Utilization and Carbon-Neutral Energy Conversion in Practical Scenarios --- Mining the Air, Extracting Industrial Wastes, One-Pass Conversion, and Scale-Out	Xu	Lu	6eh
205	Multiscale Approach to Future Energy Science and Engineering	Yingda	Lu	6eo
244	Rational Design of Smart Soft Materials	Yimin	Luo	6fq
405	Systems Approach to Advanced Decision-Making in Chemical Engineering, Biomanufacturing, and Society	Yu	Luo	6ii
79	Enabling New Chemistries through Catalyst Design	Marcella	Lusardi	6bp
95	Combining First-Principles Modeling and Nanomaterial Synthesis to Understand and Improve Environmental Catalysis	Hanyu	Ma	6bj
429	Next-Generation Molecularly Selective Materials and Processes for Scalable Energy Efficient Separations	Canghai	Ma	6jj
62	Engineering Materials to Recapitulate the Stem Cell Microenvironment	Christopher M.	Madl	6ax
264	An <i>Active</i> Approach to Colloidal Self-Assembly	Stewart	Mallory	6gi
60	Engineering DNA-Polymer Assemblies	Alexander E.	Marras	6av
297	Reengineering the Tumor Microenvironment to Alleviate Hypoxia, Increase Drug Delivery and Enhance Immunotherapy	John D.	Martin	6hk
440	Enhancing nano-biomaterials and chemical methods for detection, isolation and separation of chemical and biological contaminants from infected samples	Mohammadali	Masigol	6lm
69	Process Intensification for Sustainable Fuels and Energy Production	Cornelius Mduduzi	Masuku	6bc

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277	Evaluation of the Influence of Ce4+/Ce3+ Redox-Couple on the Cyclyc Regeneration of NiO-Pdo/CeO2 Nanoparticles for Asphaltene Steam Decomposition	Oscar	Medina	6gt
87	Computational-Accelerated Materials Design for Negative Emission Technologies	Paul	Meza-Morales	6ch
43	An Unsteady State Reactor Engineering Model for Spatially Heterogeneous Wine Fermentations	Konrad	Miller	6le
2	Designer Biomaterials and Integrated Biosensors Toward Precision Medicine	Jouha	Min	6d
316	Sustainable Approaches to Polymer Recycling	Michael	Miranda	6ho
317	Absorption and Desorption Mass Transfer Rates at Elevated Pressure in a Simple Hydrocarbon System	Michael	Miranda	6je
430	Enhancement of CO <sub>2</sub> Absorption from Gas Streams Using Nanofluids in Hollow Fiber Gas–Liquid Membrane Contactor	Seyed Mojtaba	Mirfendereski	6jk
431	CO <sub>2</sub> Removal Using Highly Permeable, Ultra Thin and Well Oriented SAPO-34 Zeolite Membrane Synthesized By a Novel Four-Step Method	Seyed Mojtaba	Mirfendereski	6jl
236	Coupled Ion Transport and Fluid Flow in Energy and Environmental Sciences	Mohammad	Mirzadeh	6fg
401	Design and Synthesis of Microporous and Nanoporous Polymer Domains for Separation and Purification Processes	Mahdi	Mohammadi Ghalei	6ib
300	High Diffusive Peptides for Drug Carriers in Tumor Extracellular Matrix.	Rashmi	Mohanty	6lx
217	Active Soft Materials: Data Driven Study to Understand, Control, and Design Bio-Soft-Materials	Mehdi	Molaei	6ep
251	Advance Manufacturing of Materials for Flexible and Stretchable Devices	Kunal	Mondal	6fv
107	Molecular Simulations of Interfacial Dynamics in Biological Systems	Viviana	Monje-Galvan	6cl
286	Recombinant Peptide-Templated Palladium Nanoparticle Synthesis and Their Catalytic Activity in Coupling Reactions	Imann	Mosleh	6gw
7	Engineering Biology Solutions for a Sustainable Future	Niju	Narayanan	6k
116	QM-Based Multiscale Simulations for Applications in Electrocatalysis, Interfacial Chemistry, and Energetic Materials	Saber	Naserifar	6ct
233	Design of Functional Soft Materials for a Sustainable Future	Karthik	Nayani	6fb
255	Polymer Science in Developing Fibrous materials for Advanced Technical Applications	Behzad	Nazari	6lb
59	Reverse Perfluorocarbon Emulsions for Pulmonary Drug Delivery	Diane L.	Nelson	6au
248	Computational Assembly Engineering for Bio-Inspired Nanomaterials	Trung	Nguyen	6ft
413	Modeling and Simulation of Modular Refinery for Production of Fuels with Low Environmental Pollution	Mbinzi Kita Deddy	Ngwanza	6ip
86	Understanding and Controlling Multielectron Transfer Chemistry for Sustainable Energy Technologies	Adam	Nielander	6cf
412	Modelling of Gas Recovery from South African Shale Reservoirs	Diakanua	Nkazi	6io
413	Modeling and Simulation of Modular Refinery for Production of Fuels with Low Environmental Pollution	Diakanua	Nkazi	6ip
257	Multiscale Framework to Engineer Non-Equilibrium Responses at Complex Materials Interfaces	Alexander J.	Pak	6ll
279	Interfacial Engineering of 2D Nanomaterials for Biomedical and Energy Application	Dorsa	Parviz	6gl

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243	Machine Learning and Data-Enabled Design and Discovery of Soft and Nano Materials	Tarak	Patra	6fn
58	The Role of Topographical Cues in Cancer Cell Migration and Metastasis	Colin D.	Paul	6at
32	All-Atom Molecular Dynamics Simulations of the 5-HT <sub>2B</sub> G Protein-Coupled Receptor	Brandon	Peters	6ah
219	Constitutive Modelling for Complex Fluids in Complex Flows	Joseph	Peterson	6et
1	Engineering the Future of Aging, Healthspan and Lymphoma Time	Jude M.	Phillip	6b
206	Biopolymer Encapsulated Lipase for Biodiesel Production	Ravindra	Pogaku	6el
227	Understanding the hierarchy of structure, dynamics, and interactions in soft matter	Ryan	Poling-Skutvik	6ls
224	Leveraging Soft Matter Flows across Length Scales to Improve Human Health	Aditya	Raghunandan	6er
14	Regenerative Bandages for Enhanced Healing in Diabetic Wounds	Sahar	Rahmani	6z
441	Thermocatalytic depolymerization of lignin and hydrodeoxygenation of lignin-derived monomers	Deepak	Raiwar	6lw
124	Mechanistic Electrochemistry Driving Energy Science: From Catalysts to Batteries	Srini	Ramakrishnan	6dd
434	Biomimetic Microelectronic Systems for Deciphering Neurotransmission and Hormone Release	Sathish	Ramakrishnan	6jq
101	Direct and Non-Oxidative Conversion of Methane to Value Added Products	Vaidheeshwar	Ramasubramanian	6bt
438	Thermodynamic Behavior and Thermophysical Properties of Unusual Fluids: Heavy Oils	Francisco	Ramos-Pallares	6ju
301	Mechanisms of Diffusion in Associative Polymer Networks: Evidence for Chain Hopping	Peter	Rapp	6hl
416	Process Systems Engineering and Dynamic Process Control of Large-Scale Systems	Khalid	Rashid	6im
83	Unifying Principles in Thermally and Electrochemically Driven Catalytic Reactions	Joaquin	Resasco	6bv
290	Scalable Electronic Separation of Single-Walled Carbon Nanotubes (SWCNTs) via Novel Chromatographic Methods	Payam	Rezaei	6ld
71	Developing Active, Selective, and Energy-Efficient Heterogeneous Catalytic Processes for Enhanced Sustainability	Insoo	Ro	6be
400	Mechanics and Processing of Polymeric Materials for Soft Electronics and Robotics	Samuel E.	Root	6hy
409	Uncertainty Quantification and Risk-based Decision Support Methodologies for Healthcare and Advanced Manufacturing	Francesco	Rossi	6kf
428	Biosorption of Methylene Blue Using Citric Acid Modified Arjun Bark Powder	Shyamal	Roy	6ji
17	3D Printed Bioelectronics for Tissue Engineering and Regenerative Medicine	Alexandra	Rutz	6ae
11	Multiscale Dynamics in Biological Soft Matter and Polymeric Fluids	Amir	Saadat	6u
437	Protein Condensation in Nature: Functional or Pathological?	Mohammad	Safari	6jw
5	Peptide- and Protein-Based Functional Biomaterials	Jugal Kishore	Sahoo	6h
202	Efficient Carbon Modification for Sustainable Food/Energy/Water Nexus	Baharak	Sajjadi	6ek
203	Acoustic Cavitation Induced Chemical Functionalization of Biochar: A Feasible Strategy for Effective Removal of Heavy Metals	Baharak	Sajjadi	6jm

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<b>263</b>	Engineering Nanomaterials for Biomedical Applications	Devleena	Samanta	6gf
<b>402</b>	Design of Protein-Polyelectrolyte Complexes	Rituparna	Samanta	6lh
<b>313</b>	Multiscale Modeling and Enhanced Sampling to Probe Peptide and Peptidomimetic Assemblies	Janani	Sampath	6if
<b>128</b>	Reinforced Anion Exchange Membrane (AEM) Separators Based on Triblock Copolymers for Electrode-Decoupled Redox Flow Batteries (RFBs)	Shrihari	Sankarasubramanian	6dp
<b>422</b>	Advanced Membranes for Sustainable Separations at the Water-Energy Nexus	Oishi	Sanyal	6ja
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