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24	Quantitative Single-Cell Analysis of RNA Regulation at the Single Molecule Level	Fangyuan	Ding	6kr
25	Electrochemistry Enabling New Frontiers in Biomaterials Engineering	Sina	Jamali	6p
26	Interactive Characterization of Biomaterials in Simulated Biological Environment	Sina	Jamali	6x
28	Theory and Modeling of Biopolymers and Bio-Inspired Soft Materials	Kai	Huang	6ks
29	Understanding Physically Crosslinked Polymer Networks to Rationally Design Hydrogel Biomaterials	Hector	Lopez Hernandez	6l
30	Biocompatible Zwitterionic Polymers for Medical Applications	Xiaojie	Lin	6m
31	Tailoring Polymer Chemistry for Biomass-Derived Materials: From Artificial Plant Cell Wall to Fungible Bioproducts	Qiang	Li	6t
32	All-Atom Molecular Dynamics Simulations of the 5-HT_{2B} G Protein-Coupled Receptor	Brandon	Peters	6ah
33	Engineering Microorganisms and Their Environment for Increased Performance in Biorenewable Applications	Kirsten	Davis	6aa
34	Nano-Optical and -Electronic Devices with Machine Learning for Biomarker Discovery and Diagnostics in Personalized Medicine	Lee	Korshoj	6a
35	Biosafe, Eco-Friendly Levan Polysaccharide Toward Transient Electronics	Kiyoon	Kwon	6c
36	Constitutive Modeling of Complex Biomaterials	Jeffrey S.	Horner	6j
37	Integrating Molecular Modeling with Experimental Work to Propel a Bioproducts Pipeline	Emma C.	Brace	6o
38	Advancing Technologies for Prenatal and Women's Health	Christina M.	Bailey-Hytholt	6af
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	Biomedical Engineering			
47	Living Biodevices for Precision Medicine:from Morphing Electronics to Medical Nanorobots	Jinxing	Li	6ai
48	Soft, Flexible Tissue-Integrated Chemical Sensors: From Wearable to Implantable Neural Systems	Amay J.	Bandodkar	6aj
49	Lung Surfactant Inhibitors and Their Effect on ARDS (Acute Respiratory Distress Syndrome)	Sourav	Barman	6ak
51	Developing Tools for Emerging Liquid Biopsy Applications	Jose C.	Contreras-Naranjo	6al
52	Interfacing Cell/Tissue Engineering with Gene Editing Tools and Sequencing Technologies for Regenerative Medicine	Halil	Tekin	6am
53	Engineering Microsystems for Regulating Cellular Behavior: From Implantable Drug Factories to Novel Platforms for Single-Cell Genomics	Suman	Bose	6an
54	Biologically Inspired, Electrically Active Membranes for Sustainability and Medicine	Thomas B. H.	Schroeder	6ao
55	Computational Modeling in Cancer Systems Biology: Stochasticity, Complexity, and Multiscale Dynamics in Disease Progression and Drug Response	Leonard Alfredo	Harris	6ap
56	Engineering the Tumor Microenvironment	Andreas	Kourouklis	6aq
57	Multidimensional Single Cell Analysis: Devices and Technology for Cancer Biology	Alex	Xu	6ar
58	The Role of Topographical Cues in Cancer Cell Migration and Metastasis	Colin D.	Paul	6at
59	Reverse Perfluorocarbon Emulsions for Pulmonary Drug Delivery	Diane L.	Nelson	6au
60	Engineering DNA-Polymer Assemblies	Alexander E.	Marras	6av
61	Synergizing Engineering, Chemical, and Immunological Concepts to Design the Next Generation of Therapeutics for Unmet Clinical Needs	Benjamin	Umlauf	6aw
62	Engineering Materials to Recapitulate the Stem Cell Microenvironment	Christopher M.	Madl	6ax
63	Ionic Liquids to Overcome Obstacles in Nanoparticle Drug Delivery	Eden E L	Tanner	6ay
64	Understanding Nucleation and Crystal Growth of Organic Molecular Materials with Application to Pharmaceutical Manufacturing	Gerard	Capellades	6ba
65	A Polymeric Reactor for the Synthesis of Superparamagnetic-Thermal Treatment of Breast Cancer	Roa'	Fardous	6as
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
67	High Performance Materials for Wearable Electronics and Sensors	Lauren	Taylor	6lt
68	Bionanotechnology: DNA Nanotechnology-based Molecular Devices, Bio-sensors, and Hybrid Materials forBiological and Nanophotonic Applications	Palash	Dutta	6lu

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	Catalysis			
69	Process Intensification for Sustainable Fuels and Energy Production	Cornelius Mduduzi	Masuku	6bc
70	Molecular Modeling and Machine Learning for Catalysis and Separations	Tyler R.	Josephson	6bd
71	Developing Active, Selective, and Energy-Efficient Heterogeneous Catalytic Processes for Enhanced Sustainability	Insoo	Ro	6be
72	Scaling up First Principle Simulation in Realistic Environment: Solvent Effects and Excited State Properties in Computational Catalysis	Fang	Liu	6bg
73	Elucidating Atomic Dances through Reaction Landscapes	Arthur J.	Shih	6bh
74	From 1- and 2-Dimensional Materials to Architectural Properties in Catalysis: Rationalizing, Predicting and Designing through First-Principles Methods	Roberto	Schimmenti	6bi
75	Dynamic Heterogeneous Catalysis to Enhance Turnover Frequency Via Surface Resonance	M. Alexander	Ardagh	6bk
76	Development of Next-Generation Catalytic Technology for Efficient and Sustainable Chemical Transformations	Manish	Shetty	6bl
77	Sustainable Fuel and Chemical Synthesis Via Catalytic Valorization of Abundant and Renewable Resources	Nathaniel	Eagan	6bm
78	Discovery and Optimization of Processes and Catalysts for the Organic Electrosynthesis of Carbon-Neutral Fuels and Chemicals	Ezra L.	Clark	6bn
79	Enabling New Chemistries through Catalyst Design	Marcella	Lusardi	6bp
80	Precision Synthesis to Control Catalyst Surface Structures for Improved Reactivity and Performance	Madelyn R.	Ball	6bq
81	Reshaping the Carbon Cycle with Catalysis: Selective Activation of Chemical Bonds for Producing Carbon Neutral Fuel and Chemicals	Alyssa	Hensley	6bs
82	Development of Thin Film Deposition & Etching Processes for Challenging Materials	David	Barlaz	6bu
83	Unifying Principles in Thermally and Electrochemically Driven Catalytic Reactions	Joaquin	Resasco	6bv
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
85	Mechanistic Study and Engineering of Vapor/Solid Interface *in-Operando*: Applications in Heterogeneous Catalysis for Energy Upgrading Reactions	Xueqiang	Zhang	6ca
86	Understanding and Controlling Multielectron Transfer Chemistry for Sustainable Energy Technologies	Adam	Nielander	6cf
87	Computational-Accelerated Materials Design for Negative Emission Technologies	Paul	Meza-Morales	6ch
88	Catalyst Design through Simulations and Machine Learning	Seoin	Back	6ci
89	Accelerating Net-Zero Carbon Emissions By Electrochemical Catalysis: Understanding and Controlling the Reactions at Interfaces	Lei	Wang	6cj

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90	Design of Dynamic and Solvated Reaction Environments for Enhanced Conversion and Selectivity with Heterogenous Catalysts	Jennifer	Jocz	6kg
91	Sustainability towards the Future:bridging the gap between catalysis science and reaction engineering	Yang	Xiao	6kn
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
93	Rational Catalysts and Process Development for Light Hydrocarbons Upgrading from Natural Gas/Shale Gas	Weijian	Diao	6cd
94	Rational Design of Alloy Catalysts By Building Atomic-Scale Structure-Property-Activity Relationships	Liang	Cao	6bb
95	Combining First-Principles Modeling and Nanomaterial Synthesis to Understand and Improve Environmental Catalysis	Hanyu	Ma	6bj
96	Process-Informed Design of Electrocatalysts for Sustainable Chemical Transformations	Gastón O.	Larrazábal	6ck
97	Development of n-Doped Oxides As an Electron Rich Support: Bridging Homogeneous and Heterogeneous Catalysis	Juan	Jimenez	6cg
98	Fundamental Design of Sustainable Catalytic Reactions at the Water-Energy-Food Nexus	Lea	Winter	6bf
99	Electrosynthesis for Sustainable Chemical Production	Matthew	Jouny	6bo
100	Study of Catalytic Reactions for the Production of Fuels and Chemicals from Renewable Feedstocks	Gabriel	Seufitelli	6br
101	Direct and Non-Oxidative Conversion of Methane to Value Added Products	Vaidheeshwar	Ramasubramanian	6bt
102	One-Step Synthesis of Oxide Catalysts Using Aerosol Reactors for Environmental Applications: Theoretical and Experimental Study	Sungyoon	Jung	6bw
103	Engineering the Catalytic Environment: Synthetic, Mechanistic, and Spectroscopic Approaches for Developing Design Principles	Daniel T.	Bregante	6cb
104	First-Principles Approaches for Catalyst Design: Novel Descriptors and Strategies for Materials Discovery	Joseph	Gauthier	6cc
105	Novel Approaches to Biomass Upgrading for a More Sustainable Chemical Industry	Andrew W.	Tricker	6ku
106	Catalyst Design with Atomic Precision for Fuel Gas Processing and Pollution Purification Reactions	Ming	Yang	6lc

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107	Molecular Simulations of Interfacial Dynamics in Biological Systems	Viviana	Monje Galvan	6cl
108	Reproduce – Remediation and Production Using Computational and Electrochemical Approaches	Damilola A.	Daramola	6co
109	From Biosynthesis to Human Health: Harnessing Biomolecules with Multiscale Quantum Mechanics-Molecular Mechanics Simulations	Zhongyue	Yang	6cz
110	Designing the Structure and Function of Soft, Complex Materials with Computational Modeling	Michael P.	Howard	6ck
111	Computational Protein Design Using Optimization Programs and Force-Field Calculations	Ratul	Chowdhury	6ci
112	Data-Driven Modeling and Control of Batch and Batch-like Processes	Abhinav	Garg	6co
113	Optimization and Control of Chemical Process Systems Under Uncertainty	Rohit	Kannan	6cq
114	Computational Design and Development of Advanced Catalytic Materials	Mingjie	Liu	6cr
115	Studying Soft Materials in- and out-of-Equilibrium Using Analytical and Numerical Field Theories	Douglas	Grzetic	6cs
116	QM-Based Multiscale Simulations for Applications in Electrocatalysis, Interfacial Chemistry, and Energetic Materials	Saber	Naserifar	6ct
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128	Reinforced Anion Exchange Membrane (AEM) Separators Based on Triblock Copolymers for Electrode-Decoupled Redox Flow Batteries (RFBs)	Shrihari	Sankarasubramanian	6dp
129	Developing Electrochemical-Based Predictive Battery Health Monitoring for Future Battery Management Systems	Saeed	Khaleghi Rahimian	6df
130	Charge Storage and Transport in Electrochemical Science: From Bulk to Interfaces	Chia-Chin	Chen	6de
131	Electrocatalysts and Gas Diffusion Electrodes for Vapor-Phase Carbon Dioxide Electrolyzers and Hydrogen Fuel Cells	Dong Un (Daniel)	Lee	6dg
132	Combining Advanced Materials and Manufacturing and Electrochemical Engineering for Building a Sustainable Future	Jeremy T.	Feaster	6dh
133	Design of Electrochemical Biosensing Strategies Toward High-Sensitivity, Non-Fouling, Multiplex Point-of-Care Systems	Yifan	Dai	6jy
134	Advanced Materials for Efficient Energy Conversion Based on Spectroscopic and Mechanistic Study	Xuan	Yang	6dq
135 eh	Fabrication of Conducting Polymers and Superconductors Using Chemical Vapor Deposition Methods for Energy and Electronic Application Devices	Meysam	Heydari Gharahcheshmeh	6dx
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207	Functionalized Materials for Sustainable Energy Applications: Structure and Reactivity	Gengnan	Li	6kp
208	Sustainable Conversion Processes and Reactor Design to Produce Fuels and Chemicals	Muhammad	Siddiquee	6dt
209	Sustainable Energy Production from Renewable and Fossil Fuels	Saikat	Das	6ee
210	A Structured Approach to the Design and Optimization of Sustainable Energy Systems	Nathanial J.	Cooper	6ef
211	The Future of Concentrated Solar Thermal - Smart Selection of Materials for Hydrogen Production and Energy Storage	Alicia	Bayon	6em
212	Moving Beyond the Limits between Science, Engineering and I 8cations: Structure			

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256	Chemomechanical effect affects ductile mode material removal in slicing silicon wafers for photovoltaics	Arkadeep	Kumar	6li
257	Multiscale Framework to Engineer Non-Equilibrium Responses at Complex Materials Interfaces	Alexander J.	Pak	6ll
258	Advancing Nanomaterials for Energy and Water Applications Using Atomistic and Quantum Chemical Simulations			