| **# 356** - Meet the Industry Candidates Poster Session: Particle Technology Forum | | | | |
|---|---|---|---|---|
| *Tuesday, November 15, 2022 1:00 PM - 3:00 PM* | | | | |
| *North Hall E, Phoenix Convention Center* | | | | |
| BOARD NUMBER | Title | First Name | Last Name | Paper Number |
| 1 | Targeted Groundwater Remediation Using Engineered Colloids | Joanna | Schneider | 356a |
| 2 | Reversible Association of Sequence-Defined Oligocarbamates | R. Kenton | Weigel | 356b |
| 3 | Molecular Modeling and Machine Learning-Based Design and Discovery of Nanoporous Materials for Energy and Environmental Applications | Krishnendu | Mukherjee | 356c |
| 4 | Enhancing the Capture Efficiency of Antibody-Antigen Reactions in Sessile Droplets and the Study of Resultant Deposition Patterns | Vidisha Singh | Rathaur | 356d |
| 5 | Modeling the Rheology of Aggregating Colloidal Suspensions: Insights from Population Balances and Non-Equilibrium Thermodynamics | Soham | Jariwala | 356e |
| 6 | Thermodynamic and Kinetic Factors Influential in the Redispersion of Pt-Group Metal Nanoparticles to Ion-Exchanged Cations in Zeolites | Keka | Mandal | 356f |
| 7 | Structure-Property-Performance of Electrically Conductive Nanocomposites | Farivash | Gholamirad | 356g |
| 8 | Controlling Polymorphism and Orientation of Nu-901/Nu-1000 Metal–Organic Framework Thin Films | Prince | Verma | 356h |
| 9 | Adhesion of Soft Materials to Wet, Compliant or Rough Substrates | Preetika | Karnal | 356i |
| 10 | Sensitivity of Ethylene Oligomerization Rates and Selectivities to the Nature of Metal Ion on Siliceous Supports By First Principles and Microkinetic Interrogation | Neha | Mehra | 356j |
| 11 | Bio-Derived Dioxolanes As Renewable Diesel Fuel | Xiaokun | Yang | 356k |

*Posters listings updated as of 11/7/2022

| **# 357** - Meet the Industry Candidates Poster Session: Pharmaceutical Discovery, Development and Manufacturing | | | | |
|---|---|---|---|---|
| *Tuesday, November 15, 2022 1:00 PM - 3:00 PM* | | | | |
| *North Hall E, Phoenix Convention Center* | | | | |
| BOARD NUMBER | Title | First Name | Last Name | Paper Number |
| 17 | Solution Deposited Synthesis of Chalcogenide Perovskites at Temperatures below 600°C | Apurva | Pradhan | 357a |
| 18 | Free Energy Calculation with Non-Uniform Windows for Improved Computational Efficiency: A Proof of Concept | Naveen | Vasudevan | 357b |
| 19 | Effects of Intratumoral Heterogeneity on Metastasis of Triple-Negative Breast Cancer Cells | Molly | Brennan | 357d |
| 20 | Design of Functionalized Membranes for Advanced Filtration Processes | Alexandra | Khlyustova | 357e |
| 21 | Development of Cationic PAMAM Dendrimers As an Avascular Tissue Drug Delivery Platform | Brandon | Johnston | 357f |
| 22 | Development and Evaluation of Data-Driven Control Strategies for Drying End-Point Determination in a Semi-Continuous Fluid Bed Granulation Process | Shashwat | Gupta | 357g |
| 23 | Modeling Functional Nanoporous and Soft Colloidal Materials Using Molecular Simulations and Machine Learning | Raghuram | Thyagarajan | 357h |
| 24 | Fourier Transform Infrared Spectroscopy (FT-IR) of Lyophilized RNA | Aswathy | Balakrishnan | 357i |
| 25 | High Pressure Chemistry in Manufacturing Fuel and Materials | Wenjia | Wang | 357j |
| 26 | Improving Wound Infection Treatment through Sprayable, Antimicrobial Hydrogels | Riannon | Smith | 357k |
| 27 | Development of Calcium Tungstate Nanoparticle Formulations for Concomitant Multimodal Treatment of Cancers | Dhushyanth | Viswanath | 357l |
| 28 | Bioprocess Development of Engineered Anti-CD276/CD47 Antibody-Drug Conjugates for Cancer Treatment | Yingnan | Si | 357m |
| 29 | Engineering *Saccharomyces Cerevisiae* to Mimic B Cell Antibody Diversification for the Rapid Enhancement and Selection of Antibody Therapeutics. | Andrew | Cazier | 357n |
| 30 | Demonstrating the Impact of Shear and Surface Roughness on Thrombosis in Ventricular Assist Devices | Anjana | Jayaraman | 357o |
| 31 | Computational Investigation of the Kinetics and Thermodynamics of Crystal Nucleation | Pelin Su | Bulutoglu | 357p |
| 32 | Elucidating Structure-Property Relationships at Metal-Metal Oxide Interfaces for Heterogeneous Catalysis. | Kaustubh | Sawant | 357q |
| 33 | Screening Solvents for Desired Polymorph Selection: A Solution Thermodynamics Study | Rupanjali | Prasad | 357r |
| 34 | Microfluidic Devices for Pharmaceutical Development: Lipid-Based Drug Production & Target-Directed Ligand Screening | Wan-Zhen | Lin | 357s |
| 35 | Bioreactors : Mixing and Hydrodynamic Evaluation Using Computational Fluid Dynamics | Deepak | Jain | 357t |
| 36 | A Comparative Study of Protein-a Membranes for the Rapid Purification of Monoclonal Antibodies | Joshua | Osuofa | 357u |

*Posters listings updated as of 11/7/2022

| BOARD NUMBER | Title | First Name | Last Name | Paper Number |
|---|---|---|---|---|
| 37 | Carbon Nanotube-Protein Conjugate for Photothermal Therapy Combined with Checkpoint Inhibition for the Immunomodulatory Treatment of Metastatic Breast Cancer | Gabriela | Faria | 357v |
| 38 | Metabolic Modeling and Systems Biology Characterization in the Green Alga *Chromochloris Zofingiensis* | Michelle | Meagher | 357w |
| 39 | Computational Design of HIV-1 Entry Inhibitors | Mohammadjavad | Mohammadi | 357x |
| 40 | Microfluidic Approach to Dampen Stochasticity in Crystalline Drug Release and Cellular Dynamics of Senescent Mesenchymal Stem Cells | Ryan | Miller | 357y |
| 41 | *Self-Assembled Recombinant Protein Nanomaterials for Treatment of Sars-Cov-2* | Rajarshi | Chattaraj | 357z |
| 42 | Structural Characterization of an Effector-Biasing IL-2 Immunocytokine | Joseph | Gould | 357aa |
| 43 | Nanomaterial Synthesis Using Jet Mixing Reactor | Faiz | Khan | 357ab |
| 44 | Active Learning Guided Discovery of Redox Active Molecules for Non-Aqueous Redox Flow Batteries | Akash | Jain | 357ac |
| 45 | Bio-Instructive Scaffolds for Rapid In Vivo Manufacture of CAR T Cells | Pritha | Agarwalla | 357ae |
| 46 | Transport and Stability of Biomimetic Membranes with Highly Selective Water Channels | Ritwick | Kali | 357af |
| 47 | Computational Inverse Design of Multifunctional Surfaces to Control Water and Solute Behavior | Sally | Jiao | 357ag |
| 48 | Integration of Nanoparticles and DNA Nanotechnology with Applications in Energy and Imaging | Elizabeth | Jergens | 357ah |
| 49 | Development of Tandem Systems for Carbon Dioxide and Carbon Monoxide Electroreduction | Sean | Overa | 357ai |
| 50 | Choreographing Zeolite Crystallization: It Is All Elementary | Adam J. | Mallette | 357aj |
| 51 | Bio-Compatible Polymer-Conjugated Extracellular Mega-Hemoglobin for Diverse Oxygen Therapeutic Applications | Chintan | Savla | 357ak |
| 52 | Effect of Zwitterionic Molecules on Ionic Solvation and Transport in Electrolytes | Manh Tien | Nguyen | 357al |
| 53 | Hemoglobin Encapsulated Metal Organic Framework Nanoparticles As an Oxygen Therapeutic with Tunable Size Distribution | Xiangming | Gu | 357am |
| 54 | Design Parameters for Water-Responsive Protein Block Copolymers | Jacob | Kronenberg | 357an |
| 55 | Soybean Hull As an Alternative Source for Manufacturing Pharmaceutical Grade Microcrystalline Cellulose | Navid | Etebari Alamdari | 357ao |
| 56 | Designing Life-Cycle Networks, Chemical Reaction Pathways & Innovation Roadmaps for a Sustainable Circular Economy | Vyom | Thakker | 357ap |
| 57 | A Laboratory Scale Continuous Reactor for Electrochemical Phosphate Recovery from Wastewater | Ruhi | Sultana | 357aq |
| 58 | Liposome and Polyelectrolyte Layers Derived Single Shot Vaccine Platform for Controlled Release of Inactivated Chikungunya Virus | Rashi | Porwal | 357ar |

*Posters listings updated as of 11/7/2022

| BOARD NUMBER | Title | First Name | Last Name | Paper Number |
|---|---|---|---|---|
| 59 | Controlling the Properties of the Light Responsive Transmembrane Protein Proteorhodopsin in Mesostructured Silica-Surfactant Hybrid Materials | Maxwell | Berkow | 357as |
| 60 | Application of First-Principles Calculations and Experiments in Heterogeneous Catalysis: Emission Control and Methane Valorization | Surya Pratap | Solanki | 357at |
| 61 | Towards a More Sustainable Chemical Process Industry: Rational Design of Catalysts with Process Intensified Technologies for Applications in Heterogeneous Catalysis | Sanjana | Karpe | 357au |
| 62 | Development of an improved α-amino ester hydrolase for the continuous reactive crystallization of β-lactam antibiotics | Colton | Lagerman | 357av |
| 63 | Understanding interfacial composition and structure of lipid-based surfactant monolayers for treatment of pulmonary diseases | Julia | Fisher | 357aw |
| 64 | Microscale Steering of Colloids via Chemical Gradients | Parth | Shah | 357ax |
| 65 | Elucidating the role of network topology dynamics on the coil-stretch transitionhysteresis in extensional flow of entangled polymer melts | Mahdi | Boudaghi | 2jz |
| 66 | Continuous Enzymatic Reactive Crystallization of Beta-lactam Antibiotics | Patrick | Harris | 357ay |

*Posters listings updated as of 11/7/2022