174 - General Poster Session I

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
236	The Study of Natural Wood Vinegar's Active Time for Antimicrobial Testing by Time-Kill Methods to Human Harmful Microorganism	Chee Loong	Teo*	174ck
238	Multilayer Hydrate Sediment Gas Production Behavior by Depressurization with CO_2-Enriched Gas	Nicolas	von Solms	174cj
239	Effects of Colloidal Network Characteristics on Crack Dynamics	Atiya	Badar	174cl
240	Cu- and Co-Based Catalysts for CO and C_3H_6 Oxidation in Diesel Exhaust	Zihao	Li	755g
241	Electro-Plasmonic Neural Stimulation and Its Implication for Prosthetic Devices	Ratka	Damnjanovic	174a
242	The Important Role That Size Plays into Polydopamine Nanoparticles' Antiproliferative Activity	Celia	Nieto*	174c
244	Polymeric Adsorbent for Lipopolysaccharides (LPS) Removal from Biopharmaceutical Products	Sidharth	Razdan*	174d
246	Design of a Drug Delivery System Based on Levan-Capped Silver Nanoparticles for Bactericidal Purposes	Antonio	Tabernero	174b
247	Thermo-Mechanical and Flow Properties of Polymer Nanocomposites	Koteswararao	Medidhi	174f
248	Interface of Ion-Containing Aqueous and Organic Phases within and out of Confinement	Monir	Hosseini Anvari	174g
249	Mass-Based Finite Volume Scheme for Aggregation, Growth and Nucleation Population Balance Equation	Mehakpreet	Singh	174h
250	Tribology of PVA Borax Gel on Silanized Silica	Appu	Vinod	174i
251	Scale-up of Stirred Tanks Applied to Newtonian Liquids	Daniel	Torneiros	174j
252	Unidirectional Large-Amplitude Oscillaltory Shear FLOW of Blood	A. Jeffrey	Giacomin	174k
253	Synthesis and Identification of Modified Magnetic Carbon Nanoparticle and Study of Its Application in Removing Lead Ions (Pb^{2+}) from Aqueous Solution	Bizhan	Honarvar	174l
254	Engineering Colloidal Templates for Tuning Nanoparticle Surface Interactions and Optical Responses	Alice J.	Gillen*	174n
256	Aluminum Thin Film Enhanced Native Fluorescence for Biosensors in the UV Spectral Region	Ji-Young	Lee	174m
257	Evolution of Magnetic Properties, Heating Rate, and Mpi Performance of Iron Oxide Nanoparticles during Post-Synthesis Oxidation	Sitong	Liu	174o
258	Nanostructure Control of Biosensing Materials: From Fundamental Research to Industrial Instrument	Zhenyu	Chu	174p
259	Amino Acid Coated Coated Gd2O3 Nanoparticles As a Potential T2 MRI-CT Dual Contrast Agents	Mohammad	Ahmad	174q
260	A Computationally Efficient Procedure for Studying Segregation in Alloy Materials with Monte Carlo Simulations	Gargi	Agrahari	174r
261	How to Model Local Solvation Environments in Pure Liquids and Complicated Mixtures without Dynamics	Yasemin	Basdogan	174s
262	Understanding Binding Behavior in Host-Guest Systems Using Advanced Sampling Simulations	Jonathan K.	Whitmer	174u
263	Development of Transferable Coarse-Grained Models of Amino Acids	Sanket A.	Deshmukh	174v
264	Study of MOF-Polymer Compatibility Using Molecular Dynamics Simulations	Abhishek	Sose	174w
265	Entropic Contributions to Supramolecular Assembly of Liquid Hydrocarbons	Rizwanur	Rahman	174x
266	Experimental Proof-of Concept and Model-Based Analysis of an Autonomous Sabatier Reactor for Thermocatalytic Conversion of CO_2	David	Simakov	174z
267	Cooling and Dilution Effects in a Thermally Integrated Microreactor for Sabatier Reaction	Aswathy K.	Raghu	174aa
268	An Approach for Methanol-to-Olefin (MTO) Reaction Kinetics Using Simple but Efficient Lumped Model	Jun-Hyung	Ryu	174ac
269	Functionalizing Cell Membrane with a Multifunctional DNA-Origami Platform for Biomulecular Detection	Melika	Shahhosseini	174ad

*Presenting Multiple Posters in Monday Sessions

270	Curvature-Driven Adsorption and Alignment of Cationic Nanoparticles to Phase Boundaries in Multicomponent Lipid Bilayers	Jonathan K.	Sheavly	174af
271	Quantification and Pseudo-3D Modelling of Liquid Holdup and Maldistribution in a Trickle Bed Reactor with Validation Using Gamma-Ray Computed Tomography	Muthanna H.	Al-Dahhan	174ab
271	Quantification and Pseudo-3D Modelling of Liquid Holdup and Maldistribution in a Trickle Bed Reactor with Validation Using Gamma-Ray Computed Tomography	Omar J.	Farid	174ab
271	Quantification and Pseudo-3D Modelling of Liquid Holdup and Maldistribution in a Trickle Bed Reactor with Validation Using Gamma-Ray Computed Tomography	Binbin	Qi	174ab
272	Study the Diffusion Mechanism and Diffusivity of Lithium Ions in the Ionic-Liquids-Added Electrolytes Using Molecular Simulation	Nan	Xu	174ag
273	Crude Oil Spot Sampling Methods and Their Impact on Thermophysical Properties	Joseph W.	Hogge	174ai
274	Continuous Flow Synthesis of Energetic Materials	Eric	Gauthier	174aj
275	Mechanisms of Xylene Isomer Oxidation By Non-Thermal Plasma Via Paired Experiments and Simulations	Tianyu	Shou	174ak
276	Pleiotropic Effect of Glycan Perturbation on Leukocyte Immunological Response	Xinheng	Yu	174al
277	Development of Novel Stability Assays for Protein Biopharmaceuticals Using Time-Dependent Light Scattering Analysis	Cathryn	Conner	174am
278	A Novel Ni@Zn-MOF Catalyst Activated Persulphate System for the Efficient Degradation of Orange II	Muhammad	Danish*	174an
279	Efficient Degradation of Imidacloprid through Biochar Activated Sodium Percarbonate	Muhammad	Danish*	174br
280	Efficient Degradation of Norfloxacin By Zeolite Supported Zero-Valent Iron Activated Peroxydisulfate: Performance, Toxicity, Intermediates and Mechanism	Muhammad	Danish*	174bt
281	Supported Liquid Membranes for π Electron Induced Fractionation and Separation of Aromatics and Stereoisomers	Mohanad	Kamaz	174ap
282	Role of Multi-Walled Carbon Nanotubes in Improving Flux and Antifouling Property of Polyethersulfone Hollow Fiber Membrane	Preety	Kumari	174aq
283	Hybrid Liquid Membrane Method for Removal of Arsenic from Drinking Water	Prabirkumar	Saha	174ao
283	Hybrid Liquid Membrane Method for Removal of Arsenic from Drinking Water	Soumi	Sarkar	174ao
284	Optimization of Chondrogenic Differentiation of Adipose-Derived Stem Cells through Co-Culture with Chondrocytes and Addition of Growth Factor and Nutraceutical Compounds	Olivia	Reynolds	174au
285	Towards Identification of Critical Quality Attributes of Chondrogenic Microtissues-a Metabolomics Perspective	Niki	Loverdou	174av
286	Investigating the 3-D Assembly of Chemically Specific Building Blocks for Covalent Organic Frameworks	Tiara	Maula	174ax
288	Ensemble-Based Machine Learning for Industrial Fermenter Classification and Foaming Control	Aman	Agarwal	174ay
289	Determination and Modelling of the Reciprocal Quaternary Solid-Liquid Phase Equilibrium for the Systems K^+,NH_4^+//Cl^-,$H_2PO_4^-$ -H_2OÂ at 283.15K	Tianxiang	Li	174az
290	Time-Dependent FTIR Microscopy for Mechanism Investigations and Kinetic Measurements in Interfacial Polymerisation: A Microporous Polymer Nanofilm Study	Dan	Ren	174bb
291	PAT-Facilitated Crystallization Development and Particle Engineering Via Mechanistic Understanding	Chiajen	Lai	174bc
292	Two-Membrane Air Fresheners for Enhanced Non-Energized Perfume Delivery	Gui Min	Shi	174be
293	Modeling of Cation Exchange Membranes Using Maxwell-Stefan Approach for Chlor-Alkali System	Ria	Sijabat*	174bd
294	Experimental Study of Cation Exchange Membrane Performance in Intensified Chlor-Alkali Electrolysis	Ria	Sijabat*	174bm
295	Maxwell-Stefan Modeling and Experimental Study on the Ionic Resistance of Nafion 117	Ria	Sijabat*	174bo

*Presenting Multiple Posters in Monday Sessions

296	High-Performance TFC Membranes with Optimized Polyamide Selective Layer for Water Treatment	Yan	Wang	174bg
297	Atomic Layer Deposition-Enabled Conversion of Porous Polyethersulphone to Laser-Induced Graphene for Charged Membrane Applications	David S.	Bergsman	174bi
298	Synthesizing Temperature Control System for Binary Distillation Columns	Lu	Liu	174bj
299	Revisit the Molecular Sieving Behavior in Zeolite LTA for High-Performance Gas Separation	Jin	Shang	174bk
300	Preventing "Crusty" Phase Impurities during Crystallization Scale-up	Kathryn	Meintel	174bn
301	Dielectrophoresis-Based Motion for Switching of Microparticles: Numerical Modeling and Experimentation	Waqas	Waheed	174bp
302	A Novel Hollow Fiber Membrane Embedded Co-Axial Microdevice for Simultaneous Extraction and Stripping	Zifei	Yan	174bs
303	Amphibians-Inspired Amino Acid Ionic Liquid Functionalized Nanofiltration Membranes with High Flux and Ion Selectivity for Wastewater Treatment	Hui-Fang	Xiao	174bu
304	Photon Upconversion for Real World Applications	Daniel	Congreve	174bv
305	Sustainable, Efficient, and Robust Mxene-Based Emulsion Liquid Membranes for Heavy Metals Removal	Saeed	Laki	174bw
306	Colloidal ReO_3 Nanocrystals: Extra Rhenium d-Electron Instigating a Plasmonic Response	Sandeep	Ghosh	174bx
307	Wnt-Notch Signaling Interactions during Neural and Glial Patterning of Human Induced Pluripotent Stem Cells	Julie	Bejoy	174by
308	High Throughput Embryotoxicity Assay of Drugs and Chemicals Based on Embryonic Stem Cell-EGFP Reporter System	Fengli	Zhang	174bz
309	Site-Specific Covalent Immobilization of β-Agarase Onto Magnetic Nanoparticles for the Conversion of *Gelidium Amansii* into Biologically-Active Sugars	Teklebrahan G. K.	Weldemhret	174ca
310	Maleic Anhydride Vapor Diffusion in Nafion Membranes	Anastasios	Angelopoulos	174cb
311	Monoethanolamine Based DES for CO_2 Absorption: Insights from Molecular Dynamics Simulations	Dina	Kussainova	174cc
312	Harmful Components Migration and Transformation in the Chemical Looping Gasification of Phosphogypsum As Oxygen Carrier	Liping	Ma	174cd
313	Synergistic Enhancement of CO_2 Adsorption Rate and Capacity in Polyamine-Based Protic Ionic Liquids Functionalized Highly Ordered Mesoporous Silica	Wei	Zhang	174ce
314	Reaction Kinetics of Carbon Dioxide with Aqueous Solution of DEEP Eutectic Solvent & Methyl Diethanolamine Amine Using the Stopped Flow Technique	Hani	Ababneh	174cf
315	The Self-Reactivation Performance of Nano-CaO-Based CO_2 Adsorbents in Calcium Looping Process	Hao	Liu	174cg
316	Biosensor Enabled Microbial Strain Improvement for Bioplastics Manufacturing	Niju	Narayanan	174ch
317	Plasmonic Photocatalysis for Gas-Phase Toluene Degradation: Effect of Illumination Time on Catalyst Stability	Amaury P.	Betancourt	174ci

*Presenting Multiple Posters in Monday Sessions

175 - Poster Session: Bioengineering

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
600	Fine-Tuning Expression of Genes in *E. coli* Using a Theophylline-Sensing Hammerhead Riboswitch	Alexandra	Wrist	175a
601	Programming Animal Lipid Metabolism through Engineered Bacteria	Baizhen	Gao	175b
602	Development of a Cripsr/Cas9-Based Recombineering System for the Genome Editing of Rhodococcus	Youxiang	Liang	175c
603	GT DNA Assembly Standard	Xiaoqiang	Ma	175d
604	Development of Toxr-like pH Regulator for the Optimization of Dahms Pathway in Engineered *Escherichia coli*	Angelo B.	Bañares	175e
605	Generalizing Noise Decomposition to Elucidate Nonlinear Gene Expression Noise	Tyler	Quarton	175f
606	Protein Structure Prediction and Design in a Biologically-Realistic Implicit Membrane	Rebecca F.	Alford	382c
607	Effect of Spectral Down Conversion on Growth of Microalgae in a Photobioreactor	Indreesh	Badrinarayanan	175g
608	High Production of Butyric Acid through Simultaneous Utilization of Mannitol and Sugars from Macroalgae and Rice Straw	Youngsoon	Um	175h
609	Cellulase Adsorption on Sugarcane Bagasse Lignin at 30 and 45°C	Antonio C. F.	dos Santos	175j
610	Growth Kinetics and Thermal Characterization of *Neochloris Oleoabundans* for Biofuel Production	Shaikh	Razzak	175k
611	Subcritical aqueous phase oxidation of the waste generated from alkaline pretreatment of lignocellulosic biomass	Vinod S.	Amar	175l
612	Development of Artificial Garlic Cell with Potent *in Vitro* Bactericidal Effect	Petra	Janska	175m
613	Mechanisms of Microbially Influenced Corrosion Enabled By *Acidithiobacillus Ferrooxidans*	Yuta	Inaba	175n
614	Emerging Role of Polycyclic Aromatic Hydrocarbons (PAHs) in the Development of Adverse Outcome Pathways (AOPs) Linking Human Exposure and Health Outcomes	Ilias	Frydas	175o
615	Engineering and Characterization of Human Stem Cell-Derived Multicellular Aggregates of Glial Cells	Kyle	Griffin	175p
616	Evaluation of Commercial Media and Feed for Improved Mab Production	Baohua	Zhang	175q
617	---Collagen – Poly (Ethylene Glycol) Hydrogel Matrix Modulation for Cancer Self-Organization	Kathryn M.	Sullivan	175r
618	Comparison of Metabolic Gene Expression Levels between Lactate-Consuming and Lactate-Producing CHO Cell Cultures	George	Chacko	175s
619	Utilizing CRISPR-Cas9 Genome Editing of Transcription Factors to Improve the Homogeneity of Neural Stem Cell Differentiation for Cell-Based Therapies	Kevin	Chen	175t
620	Salinomycin Modulates Antitumor Immune Response By Repolarized Tumor-Associated Macrophages Toward M1 Phenotype	Huan	Shen	175u
621	Comparison of CHO Cell Cultures Performance in Shaken and Spinner Flasks Bioreactors at the Same Value of Volumetric Mass Transfer Coefficient	Andrés Javier	Bello-Hernández	175v
622	Model-Based Design of Non-affinity Chromatofocusing Capture Method for On-demand Production of Biologics	Sevda	Deldari	175bb
623	Role of the Liver during Infection with Blood Stag-Malaria: Pathology and Gene Expression	Mohamed A.	Dkhil	175bd
624	*De Novo* Production of a Biodegradable Solvent in *Escherichia coli* via Metabolic Engineering	Aditya	Sarnaik	175x
625	Engineering *Bacillus Subtillis* for the Secretion of Hydrolases Towards Consolidated Bioprocessing of Cellulosic Biomass	Apurv	Mhatre	175y
626	Efficient Biological Activation and Conversion of Short-Chain Hydrocarbons	Seung Hwan	Lee	175z
627	Constructing Ethanol Utilization Pathway (EUP) in *Escherichia coli*	Hong	Liang	175aa
628	Optimizing Cellobiose Consumption of *Escherichia coli* by Metabolic Engineering and Adaptive Laboratory Evolution	Kris Niño G.	Valdehuesa	175ab

*Presenting Multiple Posters in Monday Sessions

629	Characterization of the Transcription Regulators Cafr and Caft from *Pseudomonas Putida* CBB5	Shelby	Brooks	175ac
630	*N*-Butanol Production from Lignocellulosic Biomass By Engineered *Clostridium Cellulovorans*	Teng	Bao	175ad
631	Establishing Probiotic *Saccharomyces Boulardii* As a Model Organism for Synthesis and Delivery of Biomolecules to the Mammalian Gut	Ibrahim	Al'Abri	175ae
632	Continuous Production of 1.3-Propanediol By Metabolically Engineered Cyanobacteria Employing an Airlift Photobioreactor with pH-Stat System	Jun-ichi	Horiuchi	175af
633	Modeling of Notch and PU.1 Regulation in T-Cell Vs Myeloid Differentiation	Shakti	Gupta	175ah
634	Enhancing Separation of Monomer and Aggregate with Mobile Phase Modifiers in Mixed Mode Chromatography	Frank	Bartnik	175aj
635	Therapeutic Applications of an Algorithm for Ultra-Rapid Binding Interaction Engineering	Ritankar	Bhattacharya	175ak
636	Macroscopic Modeling of Bioreactors for Recombinant Protein Producing *Pichia Pastoris* in Defined Medium	Moo Sun	Hong	175am
637	Electrotherapeutic Aided Wound Healing: A Fundamental Study on the Effects of Electromagnetic Fields on the Diffusion of Thrombin through Porous Gel Media	Steffano	Oyanader	175be
638	Optimizing Bias for Activation of Tumor-Reactive T Cell Subsets	Elissa	Leonard	175ap
639	Immunoengineered Therapeutic Platform for Selective Immune Cell Activation	Derek	VanDyke	175aq
640	An Innovative Method for the Characterization of Multi-Substrate Enzyme Reactions	Jens	Johannsen	175ar
641	Immobilization and kinetic studies of a microbial lipase from the fungal organism *Candida rugosa* on methacrylate polymer resins	Akash	Anand	175bc
642	Polyanhydride Nanoparticle Encapsulation Preserves Stability and Antigenicity of Mucin-Based Antigen upon Release	Luman	Liu	175as
643	A Triple-Input Microfluidic Droplet Trapping Array for Multiplexed Single Cell Analysis	Khashayar R.	Bajgiran	175at
644	Tumor-Targeted Miniature Device for Bioimpedance Measurement and Treatment	Ai Lin	Chin	175au
645	Biosynthetic Conversion of Ag^{+} to Ag^{0} Nanoparticles By *Chlamydomonas Reinhardtii*: Effects of Extracellular Polymeric Substance and Cell Components on Synthesis & Stability	Ashiqur	Rahman	175av
646	Algae Species on Turf Filter Reactor for Space Explorations	Remil	Aguda	175aw
647	Biofilm Removal Using Reversible Shape Memory Polymer	Sang Won	Lee	175ax
648	Utilizing Gold Nanoparticles and Osmolytes to Detect Virus Particles Non-Specifically	Dylan G.	Turpeinen	175ay
649	Nano-Immunosensors for Rapid Detection of Foodborne Toxin	Huipin	Cheng	175az
650	From Cell Pairs to Tissue Chips: Multi-Scale In Vitro Models for Screening Engineered Nanomaterial Toxicity	Herdeline Ann M.	Ardoña	175ba

*Presenting Multiple Posters in Monday Sessions

176 - Poster Session: Engineering Fundamentals in Life Science

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
243	Closer to Reality: Development of Biocompatible Hydrogels to Validate Antitumor Activity and Specificity of a New Targeted paclitaxel Nanovehicle through 3D Cell Cultures	Celia	Nieto*	176k
245	Polymeric Particle Based Endotoxin Removal from Protein Solutions	Sidharth	Razdan*	176x
651	Ipro+/-: A Computational Protein Design Tool Allowing NOT ONLY for Amino Acid Changes but Also Insertions and Deletions	Ratul	Chowdhury	176b
652	Modulation of Mitochondrial Activity in Human Mesenchymal Stem Cells with Biomolecules to Maintain Cell Stemness	Kara	Poole	176c
652	Modulation of Mitochondrial Activity in Human Mesenchymal Stem Cells with Biomolecules to Maintain Cell Stemness	Abigail	Jones	176c
653	Simple and Efficient Gene Knock-in Strategy in Human Cell Lines Using 5' Modified dsDNA Donors with Short Homology Arms	Qiqi	Tian	176d
654	Differentiating Human Pluripotent Stem Cells into Vascular Smooth Muscle Cells in Three Dimensional Thermoreversible Hydrogels	Ou	Wang*	176i
655	Manufacturing Human Pluripotent Stem Cell Derived Endothelial Cells in Scalable and Cell-Friendly Microenvironments	Ou	Wang*	176l
656	A Scalable and Efficient Bioprocess for Manufacturing Human Pluripotent Stem Cell-Derived Endothelial Cells	Ou	Wang*	176m
657	Transplantation of 3D Human Mesenchymal Stem Cell Aggregates As Regeneration Centers for Ischemic Stroke Treatment	Xuegang	Yuan*	176f
658	3D Dynamic Culture Enhances Extracellular Vesicle Production with Altered Biogenesis and Cargo Contents in Human Mesenchymal Stem Cells	Xuegang	Yuan*	176g
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Teng	Ma	176h
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Xuegang	Yuan	176h
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Brent	Bijonowski	176h
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Qin	Fu	176h
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Yuan	Liu	176h
659	Proteomic Analysis Reveals the Key Role of Integrated Stress Response in Restoring the Stemness of Culture Expanded Mesenchymal Stem Cells in 3D Aggregates	Richard	Jeske	176h
660	Post-Processing of 3D Bioprinted Human Dermal Tissue in the Dynamic Culture Environment of a Taylor-Couette Device	Jia Heng	Teoh	176e
661	3D Migration of Fibroblast-Macrophage Co-Cultures in Mechanically-Gradient Collagen Hydrogels	Rosalyn	Hatlen	176j
662	Microfluidic Approaches to the Study of Chemotropism in Plant Cells	Naoki	Yanagisawa	176n
663	Engineered Fn3 Proteins Have Therapeutic Effect on Mesothelin-Expressing Cancer Cells	Sarah J.	Moore	176q
664	Mitigating Antagonism Antagonism between Transcription and Proliferation Allows Near-Deterministic Cellular Reprogramming	Kate E.	Galloway	176r
665	Development of Synthetic Lethal Drug Combinations Targeting Metabolic Vulnerabilities in Glioblastoma Cells	James	Joly	176s
666	The Metabolic Impact of Radiation Damage within the Tumor Microenvironment	Kevin	Corn	176t

*Presenting Multiple Posters in Monday Sessions

667	Raps: Rapid Annotation of Photosynthetic Systems	Alexander	Metcalf	176u
668	Miren: An Optimization Tool for Transcriptomic Data-Driven Discovery of Global Regulatory Phenomena during Heat Stress in Rice Seed	Mohammad Mazharul	Islam	176v
669	Comparison of Community Detection Algorithms in Biological Networks from a Topological and Functional Perspective	Mano R.	Maurya	176w
670	Quantitative Analysis of the Plasma Membrane Outer Leaflet in Red Blood Cells	Amid	Vahedi	176y
671	A Metagenomic Search Successfully Identifies Natural Amine Dehydrogenases with High Accuracy	Adam A.	Caparco	176z
672	Modulating Lipid Droplet Breakdown in Mammalian Cells through a Split Mediated Interaction	Mitch	Raith*	176aa
674	Integrative Cellular and Nuclear Dynamics in Single-Cell Imaging Analysis	Tian	Lan*	176ac
675	Cell Cycle Progression Drives the Transitions between Epithelial and Mesenchymal Phenotypes	Tian	Lan*	176ad
676	LambdaFabSelect High Throughput Method for Clone Selection in Duetmab Molecules	Dhanesh	Gadre	176ab
677	Understanding the Metabolism of Cancer Persisters	Prashant	Karki	176af
678	Phospholipid Remodeling Via Exogenous Polyunsaturated Fatty Acid Uptake Modulates Stress Resistance in *Vibrio Cholerae*	William	Strike	176ag
679	Modeling the Adhesive Behavior of Platelets during Coagulation	Megan	Cala	176ah
680	Targeting DNA Repair Mechanisms in Bacterial Persisters	Sayed Golam	Mohiuddin	176ai
681	Targeted Pulmonary Drug Delivery in COPD Patients	Ahmadreza	Haghnegahdar	176aj
682	Title:Modeling and Simulation of Magnetophoresis of Nanoparticles – Physical Insights into Magnetic Targeting Applications	Ayankola	Ayansiji	176am
683	Ternary Amorphous Solid Dispersions – an Investigation Onto the Effects of the Addition of Mesoporous Silica on the Physicochemical Properties and Release Profile	Samuel	Solomon	176an
684	Porous and Degradable HA Particles As Sustainable Multiple Drug Releasing Capabilities	Nurettin	Sahiner	176aq
684	Porous and Degradable HA Particles As Sustainable Multiple Drug Releasing Capabilities	Selin S.	Sagbas	176aq
685	Roles of Regulatory Proteins in Controlling Endocytosis of siRNA-Containing Complexes	R. Chauncey	Splichal	176ao
686	Effect of Delivery Vehicle Surface Charge on the Intracellular Trafficking of Sirnas	Daniel	Vocelle	176ap
687	Loading and Dynamics of Doxorubicin on Pegylated Graphene Oxide Nanocarriers By Molecular Dynamics Simulation	Sasan	Nouranian	176ar
688	Vitamin-E Integrated Contact Lenses for Glaucoma Treatment	Poorvajan	Sekar	176as
689	Hydrogels for Biomedical Applications: Characterization of Structure and Performance Via NMR Relaxometry	Alan	Allgeier	176at
690	Investigating the Impact of a Nanocarrier Physiochemical Properties on Penetration into Ocular Surface Barriers	Marjan	Azadi	176au
691	Understanding Nanoparticle Distribution within the Peritoneal Cavity for the Treatment of Ovarian Cancer Metastasis	Derek	Hargrove	176av
692	Carbon Monoxide Concentration in Mainstream E-Cigarette Effluent Measured with Diode Laser Spectroscopy	Dabrina	Dutcher	176ax

*Presenting Multiple Posters in Monday Sessions

177 - Poster Session: Food and Bioprocess Engineering

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
693	Preparation of Functionalized Tilapia Fish Skin Collagen Peptide By Spsn-Immobilized Protease and Their Anti-Oxidation Component Analysis	Kaijun	Xiao	177a
694	Cleaning of Substrates Using High Pressure Carbon Dioxide Mixtures: Flow Field & Fluid Composition Effects on Biofilm Removal	Kenneth L.	Roberts	177b
695	Cinnamon, Rosemary and Oregano Essential Oils Nanoemulsions Used As Antimicrobials in Celery Juice	María Teresa	Jiménez-Munguía	177c
696	Grape Residue Anthocyanin Extraction Using Ultrasound	Patricia M.	Azoubel*	177i
696	Grape Residue Anthocyanin Extraction Using Ultrasound	Shirley C.	Rupert Brandão*	177i
697	Effect of Ultrasound in Bioactive Compounds of Acerola Juice	Patricia M.	Azoubel*	177j
697	Effect of Ultrasound in Bioactive Compounds of Acerola Juice	Shirley C.	Rupert Brandão*	177j
698	Transpiration Rates of Leafy Vegetables during Postharvest Storage: Gravimetric and Theoretical Approach	Betina Louise	Angioletti	177d
699	Correlation of Rheological Characterisation of Honey with Its Antibacterial Activities	Dr. Vincent	Anidiobu	177e
700	Isosteviol Preparation and Inclusion Complexation of It with Γ-Cyclodextrin	Hui-da	Wan	177g
701	Study of Specific Refrigerated Storage Conditions for Minimally Processed Foods: A Review	Tuany Gabriela	Hoffmann	177h
702	Design and Characterization of a UVC-Coiled Tube Reactor and Continuous Flow Microwave System for Pasteurization of Juices	Nelly	Ramírez-Corona	177k
703	Folic Acid Stability in the Gummy Matrix: Key Factors	Haiyan	Ge	177l
704	Unravelling the Mechanisms of Resistance of *Escherichia coli, Salmonella, and Listeria* biofilms to Cold Atmospheric Plasma, As Affected By Age and Surface Physico-Chemistry	Eirini	Velliou*	177m
704	Unravelling the Mechanisms of Resistance of *Escherichia coli, Salmonella, and Listeria* biofilms to Cold Atmospheric Plasma, As Affected By Age and Surface Physico-Chemistry	Hani	El Kadri*	177m
705	Modelling the Growth of *Listeria* in Novel Viscoelastic Biphasic Systems Rich in Fat with/without the Presence of Nisin or Nisin-Producing *Lactococcus Lactis*	Eirini	Velliou*	177n
705	Modelling the Growth of *Listeria* in Novel Viscoelastic Biphasic Systems Rich in Fat with/without the Presence of Nisin or Nisin-Producing *Lactococcus Lactis*	Hani	El Kadri*	177n
706	Enhanced Hydrogen Production from Non-Sterilized Lignocellulose Hydrolysates By *Nfnab*-Deleted *Thermoanaerobacterium Aotearoense* SCUT27	Jufang	Wang	177p
707	Engineering of *Clostridium Carboxidivorans* for Enhanced Ethanol and Butanol Production from Syngas and Glucose	Chi	Cheng	177q
708	Butanol Production from Hydrolysate of Jerusalem Artichoke Tubers By *Clostridium Acetobutylicum*	Lijie	Chen	177o
708	Butanol Production from Hydrolysate of Jerusalem Artichoke Tubers By *Clostridium Acetobutylicum*	Youduo	Wu	177o
709	N-Butanol Production in *Clostridium Tyrobutyricum* Triggered By Overexpression of Hydrogenase	Weiming	Li	177r
710	Engineering *Yarrowia Lipolytica* for Efficient Production of Plant-Derived Very Long-Chain Monounsaturated Fatty Acid-Nervonic Acid	Xiao-Jun	Ji	177s
710	Engineering *Yarrowia Lipolytica* for Efficient Production of Plant-Derived Very Long-Chain Monounsaturated Fatty Acid-Nervonic Acid	Tianqiong	Shi	177s
711	Bioprocess Optimization Production By *Saccharoplyspora Erythraea* from Bench to Semi-Industrial Scale	Roslinda	Abd Malek	177t
712	Statistics Guided Systematic Engineering for High-Yield Production of Terpenoids in Auxotrophic *Escherichia coli*	Congqiang	Zhang	177y
713	High Magnetic Energy Gradient Quadrupole Magnet to Fractionate Oxirase-Deoxygenated Low Iron Label-Less RBCs from Aged Blood Donations	Mitchell	Weigand	177v

*Presenting Multiple Posters in Monday Sessions

714	Pd@Pt Nanoparticle-Amplified Immunoassay for Rapid Detection of Harmful Herbicides	Eunice	Kwon	177w
715	Dorsoventral Polarity Regulates the Modes and Mechanisms of Cell Migration in Confinement	Panagiotis	Mistriotis	177x
716	Improving the Productivity of 5-hydroxy-L-tryptophan in *Escherichia coli* by Combinational Evolution of Several Key Enzyme and Co-enzymes	Mengjun	Fang	177z

*Presenting Multiple Posters in Monday Sessions

178 - Poster Session: Food Innovation and Engineering

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
717	Additive Manufacturing of Food: Formulation and Printability Criteria	Tom	Mills	178a
718	The Possible Application of a Single Passive Acoustic Emission Sensor to Identify Different Complex Fluids in a Fully Flooded Pipe	Federico	Alberini*	178b
719	Investigation of Pipe Cleaning Process Using Planar Laser Induced Fluorescence	Federico	Alberini*	178e
719	Investigation of Pipe Cleaning Process Using Planar Laser Induced Fluorescence	Peter J.	Fryer	178e
720	Event-Based Optimisation for Harvesting Scheduling Under Precision Agriculture	Miao	Guo	178c
720	Event-Based Optimisation for Harvesting Scheduling Under Precision Agriculture	Qingyuan	Kong	178c
721	Antimicrobial Mesh Materials Applied to Milk and Brine	Mainara	Costa-Teixeira	178d
722	Model Reduction of Phase-Field Models Describing Crystallisation Phenomena	Estefania	Lopez-Quiroga	178g
723	Oleogels As Future *Trans* fat Alternative: A Mathematical Model for an Unsolved Conundrum in Gelation during Scale up Process	Sai Sateesh	Sagiri	178h

*Presenting Multiple Posters in Monday Sessions

179 - Poster Session: General Poster Session in Sensors

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
134	Modeling Fermi Levels in Metal Functionalized TiO2 Sensors for Applications in Volatile Organic Biomarker Detection Associated with Pneumonia	Lani	McKinnon*	179h
449	Synthesis and Characterization of Charge Transfer Complex Micro/Nanowire Junctions and Their Application in Gas Sensing	Mohamed	Kilani*	179d
476	Oriented Freeze-Casting Fabrication of Resilient Copper Nanowire-Based Aerogel As Robust Piezoresistive Sensor	Jiankun	Huang	179a
477	Synthesis of Core-Shell Palladium Nanowires@ZIF-8 for Hydrogen Sensors	Abhishek	Kumar	179b
478	Charge-Transfer Salt Nanowire Electrocrystallization for Ammonia Detection	Xuecheng	Yu	179c
479	Biomimetic Properties of Modified Graphene Oxide and Graphitic Carbon Nitride Nanomaterials for Biosensing Applications	Muhammad	Nasir	179e
480	Fabrication of Laser Printed Microfluidic Paper-Based Analytical Devices for Point-of-Care Applications	Rajesh	Ghosh	179g
481	Factors Affecting CO_2 Accumulation in the Motor Vehicle Cabin	Mark	Sprowls	179i
482	Curating Metal-Organic Frameworks to Compose Robust Gas Sensor Arrays	Arni	Sturluson	179j
483	Probe Design for NMR of Chemical Reactions at High Temperature and Pressure	Hilary T.	Fabich	179k
484	Sensing and Detection of Arsenic By Localized Surface Plasmon Resonance of Gold-Vitamin B12 Complex and a Device Thereof	Rajdip	Bandyopadhyaya	179l

*Presenting Multiple Posters in Monday Sessions

181 - Poster Session: Materials Engineering & Sciences (08A - Polymers)

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
1	Fabrication of Nanostructures Via Directed Self-Assembly of Block Copolymers	Dong-hyun	Kim	181a
2	Confinement Effects on Dye Translational Diffusivity in Polystyrene Thin Films Depend on Polymer Molecular Weight: Connection to Fragility-Confinement Effects	John M.	Torkelson	181b
3	Glass Transition Temperature of a Polymer Thin Film: Simulation Methodology and Statistical Variation	David	McKechnie	181c
4	Monolayer Two-Dimensional Polymers for Wafer-Scale Heterostructures	Yu	Zhong	181e
5	Block Copolymer Directed Self-Assembly Defect Modes Induced By Localized Errors in Chemoepitaxial Guiding Underlayers: A Molecular Simulation Study	Jakin B.	Delony	181f
6	High Pressure Impregnation of Alkyl Ketene Dimers (AKD) in Cellulose Substrates, Creating Novel Sticky Hydrophobic Surfaces	Brenda	Hutton-Prager	181g
7	Effects of HPHT Conditions on the Rate of Degradation of High Performance Epoxy Coatings	Narayanan	Rajagopalan	181h
8	Tailoring Surface Wettability of 3-D Printed Minimal Surfaces Using iCVD for Implementation As Packing in Gas-Liquid Absorption Columns	Aravind	Suresh	181i
9	Unique electromechanical behaviors of carbonaceous nano-fillers in an elastomer matrix	Michael	Bozlar	181bu
10	Optical and Electrical Properties of Solution-Mixed and Sequentially Processed Poly(3-alkylthiophene):F4TCNQ Films	Alice	Fergerson	181j
11	High Electron Affinity Molecular Dopants for Solution Processing of Organic Semiconductors	Rachel	Talbot	181k
12	Fmoc Assisted Gelation of P3HT	Santanu	Kundu	181l
13	Tuning the PEDOT Lattice Parameter By Engineering Dopant Level for Efficient and Stable Perovskite Solar Cell Device	Meysam	Heydari Gharahchesh meh	181m
14	Synthesis of Supercapacitor Electrodes Based on Polyaniline Microfibers Using a Novel Electrospinning Architecture	Somdatta	Bhattacharya	181n
15	Stabilizing Electroconvective Flow in Viscoelastic Polymer Electrolytes	Duhan	Zhang	181o
16	Charge Transport in Nonaqueous Polyelectrolyte Solutions for Li-Ion Batteries: Ion-Ion Correlations and the True Transference Number from Molecular Dynamics Simulations	Kara D.	Fong	181p
17	Electrolyte Chemistries with Responsive Polymers for Thermal Safety in Li-Ion Batteries	Mark E.	Roberts	181q
18	Structure-Property Relationships in Dynamic Polymer Networks for Electrochemical Applications	Snehashis	Choudhury	181s
19	Porous Thin Films Via Physicochemical-Selective Initiated Chemical Vapor Deposition (iCVD)	Mahdi	Mohammadi Ghaleni*	181u
21	Novel Polymer Nanocomposite Anion-Exchange Membranes Based on Ni^{2+}–Modified g-Carbon Nitride	Carla	Zambrana-Cruz	181t
22	Removal of Hg^{2+} from Polluted Water Using Molecularly Ion-Imprinted Silica Particles (MIIP) As Fibrous Composite with Polysulfone Matrix	Rosemarie Ann I.	Cuevas	181v
23	Development of Novel Crosslinked Polymers with Intramolecular Pi-Pi Interactions	Rishabh	Shah	181w
24	Development of Covalent and Non-Covalent Crosslinked Temperature Responsive Polymeric Gels	Rishabh	Shah	181bf
25	Compatible Zwitterion-PVDF Membrane Designs	Amira	Abdelrasoul	181x
26	Multicomponent Transport in Hydrated Dense Polymer Membranes: Impact of Varied Fractional Free Volume	Breanna M.	Dobyns	181y
27	A Robust Cotton Textile Based Material for High Flux Oil-Water Separation	Hongshuang	Guo	181z
28	Investigation of PVA Microneedle for Protein Delivery	Hazim	Aljewari	181aa
29	Rapid and Complete Implantation of Layer-By-Layer Microneedle Drug Films for Enhanced Transdermal Vaccination	Yanpu	He	181ab

*Presenting Multiple Posters in Monday Sessions

30	Aqueous Media Resistant PVA/HPMC Nanofibers By Electrospinning Technique for Drug Delivery System	Mar Calzado	Delgado	181ac
31	Tough Hydrogel Network Based on Calcium-Crosslinked Sulfur Salt	Jesse	Vongnaraj	181ae
32	Polymer Coated Nanoparticles for Photothermal Therapy and Prognosis of Breast Cancer	Muhammad Raisul	Abedin	181af
33	Study on the Novel Porous PDMS-Based Dielectric Elastomer Actuators and Their Application in Robotics	Jiahui	Xu	181ai
34	Uniaxial Compression of PVDF: A New Approach to Form Isotropic β Phase Thick Sheets	Shubham	Mireja	181aj
35	Ultra-Stretchable P(AAMPSA)/PANI/PA Conductive Polymer Complex with Excellent Linearity and Repeatable Autonomous Self-Healing Ability	Jesse	Horne	181ak
36	Polymer Based Cost-Effective Triboelectric Nanogenerator	M. Jasim	Uddin	181ah
36	Polymer Based Cost-Effective Triboelectric Nanogenerator	Aminur Rashid	Chowdhury	181ah
36	Polymer Based Cost-Effective Triboelectric Nanogenerator	Diana	Lopez	181ah
36	Polymer Based Cost-Effective Triboelectric Nanogenerator	Abu Musa	Abdullah	181ah
37	Characterization and Evaluation of PMMA Interfacial Cohesion Under Various Bonding Conditions	Pei-Kang	Sun	181al
38	Prediction of Swelling and Linear Viscoelasticity of Starch Suspensions	Gnana Prasuna	Desam	181am
39	Conformational Rearrangement of Knots in Tensioned Polymer Chains	Beatrice W.	Soh	181an
40	Analysis of Brownian Dynamics and Molecular Dynamics Data of Unentangled Polymer Melts Using Proper Orthogonal Decomposition	Chi Pui Jeremy	Wong	181ao
41	Coarse Grained Simulations for Observing Macromolecular Behavior Under Stress	Louise	Kuehster	181ap
42	Performance of Phthalates and Alternative Plasticizers in PVC Via Molecular Simulation: Materials Properties and Migration Tendency	Dongyang	Li	181aq
43	Accelerated Design of Molecular Additives for Polymer Crystallization	Corinne L.	Carpenter	181ar
44	High-Performance *in-Situ* Sequential Interpenetrating Network of Bismaleimide and Cyanate Ester for Vat Photopolymerization	Anh	Huynh	181at
45	Isosorbide-Based Low Viscosity Resins for Additive Manufacturing Applications	Xi	Chu	181av
46	Bio-Based Thermosets Prepared Using Aza-Michael Addition of Furan and Isosorbide Building Blocks	Xi	Chu	181be
47	Microcapsule-Based Self-Healing for 3D Printing	Vinita	Shinde	181au
48	Structure and Dynamics in Matrix Free Polymer Grafted Nanoparticle Based Systems	Mayank	Jhalaria	181aw
49	Effect of Thermal History on Particle Structure and Dynamics in Polymer Nanocomposites	Andrew	Jimenez	181ax
50	Effects of High Filler Content on the Thermal, Mechanical and Rheological Properties of Hnt/LLDPE Nanocomposite	Bahareh	Baheri	181ay
51	Modeling of Diffusion in Epoxy Resin Composites	Patrick	Krenn	181az
52	Analysis and Review of Micro and Nano-Structured Polymeric Materials	Nikhil	Prakash	181ba
53	Multi-Scale Modeling of Fiber-Matrix Interphase	Salman	Zarrini	181bb
54	ABC Polymeric Ionic Liquid Triblock Terpolymers	Patrick	Lathrop	181bc
55	Synthesizing Novel Degradable Polymers with Tunable Mechanical Properties	Whytneigh R.	Duffie	181bd
56	Performance Evaluation of Synthesized Gemini Cationic Surfactants Having Different Hydrophobic Tail and Spacer Length for Enhanced Oil Recovery	S. M. Shakil	Hussain	181bg
57	The Epoxidation of Polybutadiene By Reaction-Controlled Phase-Transfer Catalyst	Li	Xu	181bh
58	Controlled Synthesis of Polyolefin Copolymers with Rapid Curability for Photovoltaic Cell Encapsulation	Liqiong	Luo	181bi
59	Molecular Architecture Vs Reaction Conditions: Comprehensive Modeling of Arget-ATRP of Styrene-Acrylonitrile Copolymerization	Cecilia	Fortunatti	181bj
60	Experimental Validation of Deconvolution Theory	Raunil	Raj	181bt
61	A More Detail Study on Tgic, Simultaneous Effect of Molecular Weight, Comonemer Content and Comonomer Type	Amirreza	Badri	181bl
62	Theoretical and Experimental Study of the Phase Inversion Point during the High-Impact Polystyrene (HIPS) Production Process	Juan M.	Maffi	181bm

*Presenting Multiple Posters in Monday Sessions

63	Simulation and Control of a Batch Suspension Polymerization Reactor	Abdollah	Koolivand*	181bn
65	Extensional Rheology of Aqueous Polymer Solutions in Filament Thinning and Microfluidic Contraction Flows	Athena E.	Metaxas	181bo
66	Extensional Flow of Associating Polymers: From Processing to Performance	Zachary R.	Hinton	181bp
68	Mathematical Modeling of Blown Film Extrusion Using the Discrete Slip-Link Rheological Model	Matthew R.	Dobbins	181bq
69	Effect of the Long Chain Branched Structure of Modified PET on Its Extrusion Foaming Behaviors Under Supercritical CO_2	Shun	Yao	181bs
70	Modification of Recycle-PET and Its Compression Molding Process Foamed By Supercritical CO_2	Ling	Zhao	181br
70	Modification of Recycle-PET and Its Compression Molding Process Foamed By Supercritical CO_2	Tao	Liu	181br
70	Modification of Recycle-PET and Its Compression Molding Process Foamed By Supercritical CO_2	Yichong	Chen	181br

*Presenting Multiple Posters in Monday Sessions

182 - Poster Session: Materials Engineering & Sciences (08B - Biomaterials)

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
71	Vibration at Structural Resonance Frequency of Hydrophilic Substrates Enhances Biofilm Removal	William	Ballance	182a
72	Evaluation of Nano-Metal Organic Frameworks Safety through Transpiration and Translocation in Celery *(Apium graveolens)*	Charlimagne	Montealegre	182b
73	Investigation of Mechanical Properties of Femur and Tibia Articulations of Insect Joints	Michael	Bae	182c
74	Elastocapillarity Pumps: Water Transport in Feathers	Symone	Alexander	182d
75	Degradation of Taste and Odor Compounds with Cactus Mucilage Extraction Enhanced Photo-Catalysis Under Solar Light	Tunan	Peng	182e
76	Characterization and Application of Aluminum Nitride-Based Flexible Surface Acoustic Wave Devices on Thermoplastic Polyethylene Naphthalate	Pradipta	Das	182f
77	Biostable Conductive Nanocomposite for Implantable Subdermal Antenna	Frank	Curry	182g
78	Core-Shell Gallium/Polymer Microstructure for Thermal Responsive Implantable Electrode	Taehwan	Lim	182h
79	Structure-Function Relationships in Peptoid Cross-Linked Hydrogels	Logan	Morton	182i
80	A Dynamic Hydrogel Platform for Cardiac Tissue Model	Murat	Guvendiren	182k
81	Supramolecular Hydrogels: Complex Rheological Behavior of Polymer-Nanoparticle Hydrogels and Its Impact on Drug Release Kinetics	Hector	Lopez Hernandez	182l
82	Understanding the Impact of Non-Natural Amino Acid Incorporation on the Assembly of Multifunctional Collagen Mimetic Peptides: Simulations and Experiments	Phillip	Taylor	182m
83	Effective Immobilization of Potassium Copper Hexacyanoferrate Via Amino-Functionalization of Magnetic Chitosan Adsorbent for Selective Cs^+ Separation	Hyelin	Roh	182n
84	Hydrogel Crosslinking By Minimally Invasive Surgical Modalities	Huanan	Zhang	182j
84	Hydrogel Crosslinking By Minimally Invasive Surgical Modalities	Tasmia	Tasnim	182j
85	Solution Phase Separation Using Deep Eutectic Solvents for the Fabrication of Chitosan-Based Porous Materials	Luis Humberto	Delgado-Rangel	182o
86	D-7-ACA Dissolution in a Micromixer with a Circulator	Xie	Yu	182p
87	Patterning Matrix Droplets for Quantitative Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging	Sanghwan	Park	182q
88	Frozen Films: Porous Thin Films for in Vitro Culture	Kailei	Xu	182s
89	Thermoresponsive Protein Hydrogels for Sustained Delivery of Small Molecules	Michael	Meleties	182v
90	Protein Corona Formation on Pegylated Particles for Drug Delivery	Kathleen	McEnnis	182x
91	Controlling Morphology of Biodegradable Polymer Particles with Bioactive Small Molecules and Its Application in Modulating Adipose Tissue Function	Christopher	Isely	182z
92	The Effect of Dispersed-Phase Solvent and Extraction Volume on Rosiglitazone Encapsulation in PLG Particles	Christopher	Isely	182aa
93	A Data Analytics Approach for Rational Design of Nanomedicines with Programmable Drug Release	Adam	Mullis	182y
94	Drug Delivery System for Platinum Nanoparticles	Aida	Lopez-Ruiz	182ab
95	Development of Polymeric Thin Films for Local Delivery of siRNA	Jonathan	Chou	182ac
96	Fabrication of Porous Polysaccharide Based Biomaterials with Active Therapeutic Delivery Capability Using Supercritical CO_2	Gregor	Kravanja	182ad
97	Combining Phosphorylated Chitosan-Xanthan Complexes and PCL to Obtain Bilayered Periosteum-like Scaffolds for Bone Regeneration	Ângela Maria	Moraes	182ae
98	Development of Injectable Hydrogels for Cartilage Tissue Engineering	Ângela Maria	Moraes	182af
99	Soft Nanocapsules for Systemic Gene Delivery	Hyungjun	Kim	
100	The Incorporation of Bio-Inspired Polymeric Coatings for Enhanced Schwann Cell Proliferation and Stem Cell Differentiation	Jesse	Roberts	182ah
101	Biocompatibility of Polyampholyte Polymers for Tissue Engineering Applications	Stephanie	Haag	182ai

*Presenting Multiple Posters in Monday Sessions

183 - Poster Session: Materials Engineering & Sciences (08D - Inorganic Materials)

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
102	Enhanced Hydrogen Evolution from the Heterostructure Photocatalysts	Jung Hyeun	Kim	183b
103	Ru Atoms Immobilized on Porous Hexagonal Boron Nitride for CO_2 Methanation	Juan	Jimenez	558ab
104	In Situ Bottom-up Synthesis of Porphyrin-Based Covalent Organic Frameworks	Siamak	Nejati	183d
105	Microfluidic Approach Toward Continuous Synthesis of HKUST-1 Using 3D Printing Technology	Paria	Coliaie	183g
106	Modeling the Reactivity of Open Metal Sites in Metal Organic Frameworks for Olefin Paraffin Separation	Lin	Li	183h
107	Metal-Organic Frameworks for Photonics Functional Applications	Yuanjing	Cui	183i
108	N Self-Doped Pollen-like Macroporous Carbon for Selective Hydrogenation of 1, 3-Butadiene	Qingbiao	Li	183a
108	N Self-Doped Pollen-like Macroporous Carbon for Selective Hydrogenation of 1, 3-Butadiene	Daohua	Sun	183a
109	Laser-Induced Synthesis of Metal Organic Frameworks (MOF): A Facile Approach for the Fabrication a Wide Range of Crystalline MOFs and Their Functional Composites	Erick L.	Ribeiro	183k
110	Computational Design of Metal–N-Heterocyclic Carbene Complexes Immobilised in a Metal–Organic Framework for CO_2 Hydrogenation	Kuiwei	Yang	183l
111	Conversion of Hydroxy Double Salts for Scalable Synthesis of Metal-Organic Frameworks	Yixin	Chen	183m
112	High-Yield Production of Boron-Based Nanosheets from Magnesium Diboride By Dissolution and Recrystallization in Water	Harini	Gunda	183n
113	Modification of Metal Surfaces with Superhydrophobic Nanotextures for Enhanced Food Safety and Hygiene	Shuhao	Liu	183o
114	Optimal Design of Novel Precursor Materials for Atomic Layer Deposition Using Computer Aided Molecular Design	Mina	Shahmohammadi	183r
115	Evaluation of the Influence of Fine Particle Surface Modification with Thehansen Solubility Parameters	Nobuyuki	Fujiwara	183s
116	The Role of Aminosilane Loading Density on the Formation of Gold- Coated Superparamagnatic Core/Shells with Enhanced Dual Surface Heating to Combat Tumor	Manal	Almusaynid	183t
117	Thin and Highly Selective Molecular Sieving Membranes for Cost Effective Hydrogen Purification	Marie	Bermeo	183w
119	Preparation and Characterization of Hollow Flower-like Nickel Nanoparticles	Teng	Zhang	183u
120	Tuning Uio-66 Particle Size, Defectiveness, and Fluorescence Via Modulation of Water and Ligand Equivalents	Zachary	Stillman	183v
121	Elucidating the Factors Governing Organic-Free Interzeolite Transformation	Rishabh	Jain	183z
122	Dual Role of Surfactants As Structure-Directing Agents and Mesoporogens in the Preparation of Zeolites	Aseem	Chawla	183aa
123	A Commercially-Viable One-Step Synthesis Method to Prepare MWW Zeolite Nanosheets	Yunwen	Zhou	183ab
124	Effects of $[Zn_{0.5}Si_{0.5}]^{3+}$ Substitution on Microwave Dielectric Properties of $ZnAl_{2-x}(Zn_{0.5}Si_{0.5})_xO_4$ Ceramic	Xuekai	Lan	183ae
125	Lattice Structure Analysis and Optimized Microwave Dielectric Properties of $MgAl_{(2-2x)}(Mg_{0.5}Ti_{0.5})_{2x}O_4$ Compounds with Spinel Structure	Jie	Li	183af
126	Assembly and Processing of Titania Nanorods into Mesomorphic Ceramics	Mitchell	Anthamatten	183ag
127	First-Principles Study on the Electronic, Optical and Thermodynamic Properties of $La_xSr_{1-X}Co_{1-Y}Fe_yO_{3-\Delta}$ (x/y =0.25, 0.5, 0.75) Perovskites	Ting	Jia	183ah
128	Application of Hansen Solubility Parameter to Transparency Evaluation for Composite Materials	Takahiro	Nishida	183ai
129	Modeling the Optical Properties of Silica Aerogel	Hannah	Margavio	183aj

*Presenting Multiple Posters in Monday Sessions

130	Molecular Modifiers Reveal Unique Inhibition and Dissolution Mechanisms in Barite Scale	Ricardo D.	Sosa	183ak
131	Real Time Evaluation of Struvite Formation: Insights from the Macroscopic to Molecular Scale	Doyoung	Kim	183al
132	Direct Exfoliate Anode Graphite of Used Li-Ion Batteries into Few-Layer Graphene Sheets	Xifan	Chen	183am
133	In-Situ Synthesis and Characterization of Mesoporous SBA-15 inside Enclosed Polymer Microchannels	Lani	McKinnon*	183ao
135	Effect of Material and Geometry of Nanofillers on Thermal Conductivity of Nanofluids	Jayanta	Chakraborty	183an
136	Simple and Scalable Nanofabrication of Biomimetic Broadband Anti-Reflection Coatings on Silicon Wafers	Peng	Jiang	183ap
287	Investigating the 3-D Self-Assembly of Chemically Specific Building Blocks for Covalent Organic Frameworks	Tiara Ann	Maula	183e

*Presenting Multiple Posters in Monday Sessions

184 - Poster Session: Materials Engineering & Sciences (08E - Electronic and Photonic Materials)

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
137	Design of FRET-Based Reversibly Photoswitchable Quantum Dot-DNA Conjugates	Thomas	Porter	184a
138	Tuning the Electronic and Structural Properties of MoS_2-Metal Interface through in-Silico Screening of Metal Contacts	Sagar	Udyavara	184c
139	Facile Solution Synthesis of Chalcogenide Perovskite Nanoparticles	Alexander	Jess	184d
140	Synthesis and Characterization of Nanoscale Europium Barium Titanate $Eu_{0.5}Ba_{0.5}TiO_3$	Nasim	Farahmand	184e

*Presenting Multiple Posters in Monday Sessions

185 - Poster Session: Materials Engineering & Sciences (08F - Composite Materials)

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
67	Interfacial Phenomena in Short Carbon Fiber Prepreg Manufacturing	Zachary R.	Hinton	185v
201	Understanding of *in-Situ* Growth of MOF in a Polymer Thin Film: Polyimide/ZIF-7 Mixed Matrix Membranes with Three Different Crystal Phases for Gas Separations	Sunghwan	Park	185b
202	Computational Analysis of MOF-Enzyme Interactions for Next Generation of Sensitive Biosensors	Jordan	Chapman	185c
203	Preparation of Ion-Imprinted Mesoporous Silica Functionalized with Aspargine for Adsorption of Nd(III) from Phosphogypsum Waste	Gebremedhn T.	Gebremichael	185d
204	Crown Ether Tethered on Silica Supports As Reusable Adsorbents for the Selective Capture of Cesium Ions in Water	Erwin C.	Escobar	185e
205	Synthesis of Thermoresponsive Copolymer Immobilized on Silica Coated Magnetite and Its Application for Heavy Metal Ions Recovery	Hitoshi	Tomonaga	185f
206	One-Pot Gamma Ray-Induced Green Synthesis of a Prussian Blue-Laden Aerogel for the Removal of Hazardous Pollutants	Go-Woon	Lee	185g
207	Conducting Polymer-Based Nanocomposite Anti-Corrosion Coatings for the Protection of Metals	Lekha	Papammagari	185h
208	Novel Polyoxometalate- Ionic Liquid with Antibacterial and Antifungal Properties. Feasibility of Its Implementation As a Multifunctional Thin Coating	Ana	Enderle	185i
209	Quaternized g-Carbon Nitride–Polymer Nanocomposite Anion-Exchange Membranes	Joel	Gaud	185k
210	Two-Dimensional Porous Carbon Nanoplates Mixed Matrix Membranes for CO_2 Capture	Yan	Dai	185l
211	Two-Dimensional Nanochannel Membranes for Molecular and Ion Separations	Zhongyi	Jiang	185m
212	Ultrathin Membranes Based on Single-Layer Graphene and Laminar Graphene Oxide for Molecular Separation	Jing	Zhao	185n
213	PEO Based Composite Electrolytes Incorporating Lignocellulosic Nanofibrils for Solid-State Lithium-Ion Batteries	Yidong	Liu	185o
214	Facile Synthesis of Polymer/Magnetite Nanoparticle Composite	Kodai	Hayashi	185p
215	Polyvinyl Alcohol (PVA) / Period 4-Based Ceramics Composites for Photovoltaic Applications	Natalie V.	Duprez	185q
216	Formulation of Photo Curable Resin for Highly Conductive 3D Printed Structures	Ling-Hsuan	Chen	185r
217	Melamine-Derived Graphene Foam As a Thermal Additive	Emily	Chase	185s
218	Mechanical Property Enhancement in Epon 862 Via Addition of Surface Modified Halloysite Nanotubes	Haotian	Wu	185t
219	Granules Enable Multiscale Tissue-like Behaviors in Synthetic Hydrogels	Yin	Fang	185u
220	Thermo-Oxidative Aging Property of Polyurethane with Different Hindered Phenol Antioxidants	Quanxiao	Dong	185w
221	Observation of Oil-Film Formation in Gas-Assisted Gravity Drainage (GAGD) Using a Microfluidic Device	Kelly E.	Robertson	185x
222	Effects of Hydrocarbon Resins on the Performance of Silica-Filled Styrene-Butadiene Rubber and Butadiene Rubber Blend	De-yu	Kao	185y

*Presenting Multiple Posters in Monday Sessions

186 - Poster Session: Nanoscale Science and Engineering

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
118	Hierarchical Zeolite Templated-Carbon Materials for Clean Energy Applications	Marie	Bermeo	186aj
255	Engineering Xeno Nucleic Acid Nanosensors for Enhanced Stability	Alice J.	Gillen*	186f
430	Stooped Nanohairs with Randomized Configuration By Flood Electron Beam Under Ambient Pressure	Woojin	Jung	186a
431	Particle Atomic Layer Deposition of Yttrium Oxide for Hydrolysis Protection and Sintering of Aluminum Nitride Particles	Rebecca	O'Toole	186b
432	Quaternized g-Carbon Nitride As a High Performance Electrode Material for Supercapacitors	Rocio	Lomba	186c
433	Effects of Zeolite Dopant Atom Concentration on Noble Metal Nanoparticle Sintering Observed with *in Situ* UV-Vis Spectroscopy	Elisha	Converse	186d
434	Ni^{2+}–Modified g-Carbon Nitride Deposited on Carbon Fiber Paper for Supercapacitor Applications	Andrea	Ramirez	186e
435	Thermo-Responsive Ionophore Polymer Brushes Grafted on Magnetic Graphene Oxide As a Dual-Functional Composite Adsorbent for Selective Lithium Ion Recovery from Seawater	Khino J.	Parohinog	186g
436	Near-Infrared Confocal Imaging of Single-Walled Carbon Nanotube Uptake in Bacterial Cells	Ardemis A.	Boghossian	186i
436	Near-Infrared Confocal Imaging of Single-Walled Carbon Nanotube Uptake in Bacterial Cells	Alessandra	Antonucci	186i
437	Characterization of Double-Stranded DNA on Single-Walled Carbon Nanotubes (SWCNTs)	Ardemis A.	Boghossian	186j
437	Characterization of Double-Stranded DNA on Single-Walled Carbon Nanotubes (SWCNTs)	Shang-Jung	Wu	186j
438	DNA Reaction-Diffusion Attractor Patterns	Phillip	Dorsey	186h
439	Impacts of a Low-Temperature Calcination on the Characteristics of Monodisperse, Surface-Clean, Supported Nanoparticle Catalysts	Kristin	Bryant	186k
440	MOFs Nanosheet Formation in Microreactor	Yingjian	Luo	186l
441	Fast and Green Microwave-Assisted Synthesis of Titania Nanotubes	Yingjian	Luo	186n
442	Defect State Modulation of Wide Band Gap Semiconductor Nanoparticle for Potential Manifold Application	Tuhin Kumar	Maji	186m
443	Bulk Synthesis of Quasi-Carbon Dot Via Two Step-Method from Rice Husk	Prashant	Kumar	186o
444	Polyacrylonitrile and Polypropylene Carbonate Blended Solid Polymer Electrolytes for Application Toward Solid State Lithium Ion Batteries	Jed	LaCoste	186q
445	Real-Time Evaluation of Cellular Behavior upon Exposure to Metallic Organic Frameworks	Olivia	Rose	186r
446	Sequence and Aggregation State Determine Stability, Endosomal Processing and Long-Term Fate of DNA-Wrapped Carbon Nanotubes in Mammalian Cells	Mitchell	Gravely	186s
447	Light Absorption from Gold Nanoparticle Agglomerates	Georgios A.	Kelesidis	186t
448	Nanowire Organic Sensor for Ammonia Detection	Mohamed	Kilani*	186v
450	Ion-Induced Nucleation of Carbonaceous Nanoparticles	Kimberly	Bowal	186u
451	Bandgap Engineering of 2D Metal Oxides Using Sulfur for Catalytic and Electronic Applications	Nikita	Sugak	186w
452	Synthesis and Separation of Metallic Nanoparticles in Aqueous Two Phase System	Krishna	Vadiraj Kinhal	186x
453	Facile Method to Fabricate Nanostructured Silver Selenide Thin Films at Room Temperature from a Copper Selenide Template	Nan (Louise)	Chen	186y
454	Diffusion of Species in Functionalized Micro/Mesoporous Au@SiO_2 Core-Shell Nanoparticles	Ellis	Hammond-Pereira	186z
455	An Ion Redistributor for Dendrite-Free Lithium Metal Anodes	Chen-Zi	Zhao	186aa
456	Mediatorless, Reversible Optical Nanosensor Enabled through Enzymatic Pocket Doping	Vitalijs	Zubkovs*	186ab

*Presenting Multiple Posters in Monday Sessions

457	Spinning-Disc Confocal Microscopy in the Second Near-Infrared Window (NIR-II)	Vitalijs	Zubkovs*	186ac
458	Accumulative Roll Bonding (ARB)-Processed High-Manganese Twinning Induced Plasticity (TWIP) Steel with Extraordinary Strength and Reasonable Ductility	Arash	Etemad	186ad
459	Engineering Ionically-Gelled Chitosan Nanoparticles Containing the Nucleoside Analog, Gemcitabine	Austin	Fergusson	186ae
460	A Shapelet-Based Method for Analysis of Self-Assembled Surface Imaging	Nasser M.	Abukhdeir*	186ah
461	Reorientation Dynamics and Symmetry-Breaking of Confined Nematic Liquid Crystal Domains	Nasser M.	Abukhdeir*	186ai
462	Process Intensification for Small Molecule Synthesis Via Recombinant Peptide Templated Palladium and the Elimination of Intermediate Purification	Imann	Mosleh	186ag
463	Metal-Encapsulated Carbon Nanotubes to Enhance Dispersion in Metal Matrix Composites	Gregory E.	Chester	186ak
464	Reengineering the Tumor Microenvironment to Enhance Nano-Immunotherapy	John D.	Martin	186al
465	Advanced Removal / Extraction of the Hydrocarbons by Emulsion Liquid Membrane Enhanced by Nanoparticles	Qusay	Al-Obaidi	186am
673	The Effects of Scavenger Receptor Class B Type 1 on the Uptake of Both Hard and Soft Nanoparticles	Mitch	Raith*	186af

*Presenting Multiple Posters in Monday Sessions

187 - Poster Session: Next-Gen Manufacturing

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
20	Model-Guided Design of a Solar-Assisted Water Desalination Process through Membrane Distillation	Mahdi	Mohammadi Ghaleni*	187c
64	An Advanced 3D Computational Model for Designing Next Generation Drug Carriers	Abdollah	Koolivand*	187i
425	Process Intensification in Solid Dosage Formulation By Hot Melt Extrusion	José	Hernández Espinell*	187m
466	Modeling Rosette Nanotubes for Applications in Water Filtration, Biosensing and Drug Delivery	Vyshnavi	Karra	187a
467	Enhancing Tractability of Model Predictive Control-Assisted Online Data Collection	Henrique	Oyama	187b
468	Multiscale Modeling of Pulp Fiber Length in Batch Pulping Process	Hyun-Kyu	Choi	187d
469	FDM of ABS-Nanoclay Composites	Burcin	Ikizer	187e
470	Experimental Modeling of a Nonlinear Hybrid Dynamic System	Edward P.	Gatzke	187f
471	A Workflow for the Fabrication of Innovative Crystallizers Using 3D-Printing	Kiran	Mathew Thomas	187g
472	Thermal Effects on Capillary Flow in Polymeric Powders	Katrina J.	Donovan	187h
473	3D Printing and Robotic Filling of Multi-Compartment Capsular Devices for Oral Drug Delivery	Alice	Melocchi	187j
474	Material Extrusion Based Additive Manufacturing with Blends of Polypropylene and Hydrocarbon Resins	Arit	Das	187k
475	Effect of Temperature on the Morphology of Extruded Strand in Fused Deposition Modeling: A CFD Study	Behrouz	Behdani	187l

*Presenting Multiple Posters in Monday Sessions

188 - Poster Session: Novel Products from Forest and Plant Biomass

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
237	Optimization of Tropical Active Ingredient's Concentration for Antimicrobial Testing by Time-Kill Methods to Urinary Tract Infection Related Microorganism	Chee Loong	Teo*	
485	Filament Fabrication and 3D Printability of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV)/Poly(lactic acid) (PLA) blends using a Commercial Chain Extender	Amar K.	Mohanty	188a
486	Evaluation of Binderless Board Made from Composted Rice Straw As Substrate for Rice Seedling Production	Ping	Qu	188b
487	A Closed-Loop Biorefinery for Woody Biomass Conversion Using Lignin-Derived Deep Eutectic Solvents	Yunxuan	Wang	188c
488	Reuse of Sustainable Wastes for Fibreboard Production: The Case of Waste Paper and Water Hyacinth	Ebenezer	Ojo	188d
489	Polyhydroxyalkanoate and Cellulose Ester Based Biodegradable Plastic Blends for Sustainable Packaging	Kjeld	Meereboer	188e
490	Extraction of Eucalyptus Globulus Leaves with Distinct Methods and Solvents. Comparison and Analysis of the Extracts	Jose P. S.	Aniceto	188f

*Presenting Multiple Posters in Monday Sessions

189 - Poster Session: Pharmaceutical

Monday, November 11, 2019 3:30 PM - 5:00 PM

Regency Ballroom R/S, Hyatt Regency Orlando

BOARD NUMBER	Title	First Name	Last Name	Paper Number
400	Application of Life-Cycle Concepts in Drug Substance Manufacturing	Ajay Babu	Pazhayattil	189c
400	Application of Life-Cycle Concepts in Drug Substance Manufacturing	Marzena	Ingram	189c
401	A Comprehensive Sensitivity Analysis for Risk Assessment of a Pharmaceutical Crystallization Process	Merve	Öner	189a
402	Advancing from QbD to Operational Excellence in Continuous Pharmaceutical Manufacturing	Sudarshan	Ganesh	189b
403	Assessment of Blend Uniformity in a Continuous Tablet Manufacturing Process	Nobel O.	Sierra-Vega	189e
404	Continuous Pharmaceutical Manufacturing of Uniform Crystals in Slug Flow	Mo	Jiang	189f
405	Experimental Analysis of Influence Screw Configuration in View of Understanding Granulation Mechanism in Pharmaceutical Twin-Screw Melt Granulation	Shana	Van de Steene	189g
406	Agitator Impact on the Net Weight Signal of a Loss-in-Weight Feeder Operating at Low Mass Flow Rates	Marcus	O'Mahony	189i
407	Temperature Mapping of Pharmaceutical Trickle Bed Reactor for Continuous Hydrogenation	Huibo	Sheng	189j
408	In-Line NIR Spectroscopy for Monitoring the Preparation of *Ginkgo Biloba* Extract Solid Dispersions By Hot-Melt Extrusion	Luming	Liu	189k
409	Filtration Studies Combined with Mechanistic Modelling to Reliable API Process Understanding and Scale-up	Filipe	Ataíde	189l
410	Filtration Process Modeling and Scale-up for Robust Drug Substance Manufacturing	Wenbin	Hu	189m
411	Forget Throughput, It's about the Risk- Rethinking Dead-End Membrane Filtration Scale-up	Kelly	Wei	189n
412	Development of an Expanded Parametric PBE Using Experimental Data from a High Shear Wet Granulation Process	Luis F.	Torrens-Sotomayor	189o
413	A Chemical Engineering Approach to Modelling Drug Dissolution and Transport Phenomena in the Lower Gastrointestinal Tract	Connor	O'Farrell	189p
414	Optimizing the Pharmaceutical Cleaning Process: Challenges and Opportunities	Rabah	Mouras	189q
415	The Development of a 2-Step Buprenorphine Intermediate 5 Process	Wen-Chun	Zhang	189r
416	Arginine Interactions Resulting in Virus Inactivation	Christa	Meingast	189s
417	Once Weekly Oral Ivermectin for Prevention of Malaria Transmission in Zone IVb	Jung	Yang	189t
418	Characterization of the Formulation-Process Interaction for Improved Thermal Bonding in the Manufacture of a Novel Ultra-Long Acting Oral Dosage Form	Sonia	Holar	189u
419	Development of pH -Responsive Disintegrating Matrices for Safe Intestinal Transit of Gastric Resident Dosage Forms	Juan	Jaramillo Montezco	189v
420	Single-Use Centrifuge for Large Scale Separation and Collection of CHO and mAbs, and Other Cell Culture Applications	David R.	Richardson	189w
421	Solubility Enhancement of Hydrophobic Drug Molecules *Via* Amorphous Solid Dispersions and Flash Nanoprecipitation	Nicholas J.	Caggiano	189x
422	Comparison of Oral Drug Dissolution between Medium and Long Chain Unsaturated and Saturated Triglycerides: A Modeling-Based Approach	Bhavya	Singh	189y
423	Enhancing the Long-Term Storage Stability of Amorphous Drug-Polyelectrolyte Nanoparticle Complex Via Incorporation of Hypromellose	Jia Wei	Chew	189z
424	Understanding Polymorphic Phase Transformations of Acetaminophen in Polymer-Based Formulation Processes	José	Hernández Espinell*	189aa
426	Application of Artificial Neural Network As a Predictive Tool for Continuous Liposome Processing	Sameera	Sansare	189ab
427	Development of a Blistering Packaging Process with Nitrogen-Modified Headspace	Margaret R.	Dowst	189ac
428	Dropwise Additive Manufacturing for Pharmaceuticals	Andrew J.	Radcliffe	189ad
429	Buckling of a Drying Colloidal Drop	Mahesh S.	Tirumkudulu	189ae

*Presenting Multiple Posters in Monday Sessions