

Monday General Info

Get your badge - starting at 7 am at the Event Office in the upper level of the Convention Center

Beverage Services - water stations will be available outside the meeting rooms. Complimentary coffee and tea and other beverages will be available daily from 8 am - 5 pm in the WCC upper atrium. Official Coffee breaks from 10-10:30 am and 3-3:30 pm.

Networking Space - Networking space sponsored by Baylor University can be found in the WCC upper atrium.

FOOD and Drink

In the Convention Center

Upper Atrium
Daily 11 am - 2 pm

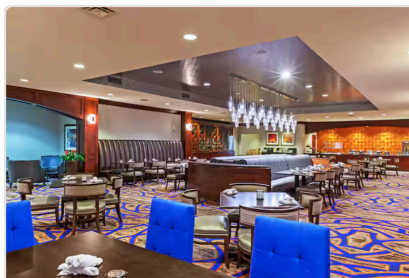
Brown Bag Special

Pulled Pork Sandwiches
Brisket Sandwiches
Sausage Sandwiches
Chips
Sodas/water
BBQ Frito pie
BBQ Nachos



In the Hilton

Breakfast, lunch, and dinner daily



Brazos Grille

Brazos Grille at the Hilton Waco hotel offers a variety of regional Italian inspired dishes to meet everyone's tastes at an affordable price. Offering a casual, yet festive atmosphere with a wide variety of menu selections, it provides the perfect place to enjoy the panoramic views of Indian Hills Park & the Brazos River. Brazos Grille is open daily for breakfast, lunch and dinner serving fresh indigenous local products.

Across the Street



WiFi Network Name: ccpublic Password: wacocc17

Monday Events

Senior Chemists Breakfast - (7-8 am) meet Pat Farmer in the Hilton Brazos Grille (Patrick_Farmer@baylor.edu)

Goodies at Coffee! Get special goodies during coffee; 10 am courtesy of ACS; 3 pm courtesy of Merck

Undergraduate Activities Undergraduate luncheon/grad panel/awards 12-1:30 pm Chisolm Hall; undergrad social 4:30-6 pm Chisolm Hall

Women Chemists Committee coffee 4:30-6 pm Ranger 108

Gooch-Stephens Reception - (5-5:45 pm) a reception will be held in honor of Professors Mark Johnson and Andrew Ellington, the Gooch-Stephens Awardees Hilton hotel Three Rivers Ballroom (immediately adjacent to the WCC).

Gooch-Stephens Lecture - Professor Johnson will present the Gooch-Stephens lecture, beginning at 5:45 pm. The lecture (open to the public) will be in McLennan Hall (WCC upper level).

“Capturing the molecular level mechanics driving bulk chemical behaviors from catalysis to the spectral dynamics of interfacial water with cryogenic ion spectroscopy”

Gala/EXPO/Grad Fair/Poster Session2 A gala reception (with awesome food from Georges and a cash/ticket bar) will be held concurrently with the EXPO, Graduate Recruiting Fair, and Poster Session 2. Brazos Ballroom (second level, WCC)

WiFi Network Name: ccpublic Password: wacocc17

Monday Morning Technical Program

Chemical Reaction Kinetics, Dynamics, and Mechanisms

D. J. Bellert, *Presiding* Lone Star 103

Computational and Theoretical Chemistry

K. L. Shuford, *Organizer, Presiding* Texas 116

DNA Damage Detection, Tolerance, and Toxicity

M. A. Trakselis, *Organizer, Presiding* Texas 117

Electrochemical Interfaces Relevant to Energy and Environment

J. Larson, *Organizer, Presiding* Texas 118

High School Educators Symposium

A. Chu, *Organizer* M. C. De Mesa, K. Moos, *Presiding* Ranger 110

New Instrumentation, Trends, and Methods in Mass Spectrometry

T. Solouki, *Organizer, Presiding* Lone Star 104

Small Molecule Modulators of Cellular Function - Biology

T. Mitchell, D. Romo, *Organizer* M. E. Abbasov, *Presiding* Texas 115

Targeting the Tumor Microenvironment

K. G. Pinney, *Organizer, Presiding* Texas 114

Undergraduate Symposium

J. R. Ingle, *Organizer, Presiding* Ranger 106/107

Stone Symposium: Unusual Structure, Reactivity, and Properties of Inorganic Species

C. Martin, S. Yruegas, *Organizers, Presiding* Texas 113

Monday Afternoon Technical Program

Bioinorganic Chemistry

P. J. Farmer, *Organizer, Presiding* Texas 114

Computational and Theoretical Chemistry

K. L. Shuford, *Organizer, Presiding* Texas 116

Materials and Interfaces

Z. Zhang, *Organizer, Presiding* Texas 118

Molecular Imaging and Reporter Strategies

R. P. Mason, *Organizer, Presiding* Ranger 106/107

New Instrumentation, Trends, and Methods in Mass Spectrometry

T. Solouki, *Organizer, Presiding* Lone Star 104

Small Molecule Modulators of Cellular Function - Synthesis

T. Mitchell, D. Romo, *Organizers* T. Mitchell *Presiding* Texas 115

Synthesis and Growth of Nano to Bulk Solids for Energy and Environmental Applications

J. Chan, R. T. Macaluso, *Organizers, Presiding* Lone Star 103

High School Educators Symposium

A. Chu, *Organizer* M. C. De Mesa, K. Moos, *Presiding* Ranger 110

Mechanisms of Genomic Repair and Mutagenesis

M. A. Trakselis, *Organizer, Presiding* Texas 117

Stone Symposium: Unusual Structure, Reactivity, and Properties of Inorganic Species

C. Martin, S. Yruegas, *Organizers, Presiding* Texas 113

Monday Evening Plenary Lecture

Gooch-Stephens Award Lecture

D. J. Bellert, *Organizer, Presiding* McLennan Hall 5:45 pm

**Capturing the molecular level mechanics driving
bulk chemical behaviors from catalysis to the
spectral dynamics of interfacial water with
cryogenic ion spectroscopy**

Professor Mark Johnson
Yale University

Sunday Evening Gala: EXPO, Grad Recruiting Fair, and Posters

Brazos Ballroom 7-9 pm

Biochemistry Posters

L. R. Marshall, *Organizer*

Environmental Chemistry and Toxicology Poster Session

G. P. Cobb, C. M. Sayes, *Organizers*

Organic Chemistry Poster Session

N. Matsumoto, *Organizer*

Polymeric Materials Science and Engineering Poster Session

R. Foudazi, *Organizer*

MONDAY MORNING

Chemical Reaction Kinetics, Dynamics, and Mechanisms

D. J. Bellert, *Presiding*

Lone Star 103

8:00 212. Quantum tunneling in the C-H bond activation of Ni⁺ mediated CH₃COOH decomposition. **G. Pinto**

8:20 213. Hydrogen tunneling without the typical large KIE measured in the mediated decay of the Co(CH₃COOH)⁺ complex. **S.U. Okafor**, G. Pinto, M. Brdecka, W. Smith, D.J. Bellert

8:40 214. Illuminating nanomaterials: A thermodynamic study of chloride ion release from photolysis. **X. Chen**, D. Conrad, E.V. Anslyn, C. Baiz

9:00 215. Product state distributions and dissociation dynamics from ozone photolysis in the Huggins band via O(³P_J) VMI. **N. Shuber**, M. Fast

9:20 216. Temperature dependent kinetics for the reactions of Ta⁺ + CH₄ and the successive higher order reactions. **T. Lewis**

9:40 217. Photodissociation of ozone in the Huggins Band: Measurements of O₂ (a¹Δ_g) rotational distributions. **M. Fast**, S.W. North

10:00 Intermission.

10:20 218. Theoretical insight into the dynamics of Co⁺ and Ni⁺ mediated decomposition chemistry of acetic acid. **H. Barzinmehr**, G. Pinto, S.U. Okafor, D.J. Bellert

10:30 219. How the kinetic signature of two-state reactivity (TSR) was determined. **D.J. Bellert**

11:00 220. Direct imaging studies of atmospheric photochemistry: Energetics, roaming, and forbidden processes. **S.W. North**

11:30 221. Temperature- and size-dependent, water-cluster-mediated long range proton transfer in microhydrated 4-aminobenzoic acid. **M.A. Johnson**

Computational and Theoretical Chemistry

K. L. Shuford, *Organizer, Presiding*

Texas 116

8:00 222. Towards affordable free energy simulations of enzyme reactions. **Y. Shao**

8:30 223. Dimensionality reduction analysis for biomolecular simulations. **P. Tao**

9:00 224. Accelerating QM/MM simulations with multiple time step and machine-learning approaches. **K. Nam**, A. Arattu Thodika, X. Pan, Y. Shao

9:30 225. Development of multiscale simulation approaches for the characterization of photochemical reactivities in biomolecules. **R. Liang**

10:00 Coffee Break.

10:30 226. Simulating protein association and aggregation. M. Sheridan, A. Chesney, M. Punchi Hathanalage, **U. Hansmann**

11:00 227. Quantifying Allosteric Response using ShapeGMM. **M. McCullagh**

11:30 228. Unraveling protein-protein dissociation via atomistic simulations. **O. Valsson**

DNA Damage Detection, Tolerance, and Toxicity

Cosponsored by TOXI

M. A. Trakselis, *Organizer, Presiding*

Texas 117

8:00 229. DNA damage at sites of terminated transcripts. **S. Rosenberg**

8:30 230. ATPase activity is essential but insufficient for mitochondrial DNA replisome function. **Y. Whitney**

9:00 231. DNA polymerase kappa supports replication gap suppression in glioblastoma cells through a mechanism involving fork reversal factors. **R.L. Eoff**

9:30 232. Polyethylene terephthalate (PET) microplastics and nanoplastics induce cytotoxicity in MCF-7 cells. **Z. Kasuske, P. Roy, K. Arole, J.E. Canas-Carrell, K. Singh**

9:45 Break.

10:15 233. Novel mechanisms of genetic instability in Cancer. **K. Vasquez**

10:45 234. Tyrosine phosphorylation of RAD51 controls its structure and function at the break.. **E. Dray**

11:15 235. Mitotic activation of the Fanconi anemia pathway induces chromothripsis and ecDNA formation. **J. Engel, P. Ly**

Electrochemical Interfaces Relevant to Energy and Environment

Cosponsored by ENFL

J. Larson, *Organizer, Presiding*

Texas 118

8:00 236. Hydrogen-bond environments at an electrochemical interface: insights from IR spectroscopy and MD simulations.. **C. Baiz**

8:30 237. Standardizing the Characterization of Conductive Hydrogels. **J. Tropp**

9:00 238. Electrochemical synthesis of formamide from CO₂ using Titanium Nitride (Ti₂N) MXene. **A. Djire**

9:30 239. Electrodeposition of aluminum from phenoxide-based binary electrolyte solutions. **D.J. Mosman, C. Silguero, A. Ambar, J. Antonetti, M.L. Aubrey**

10:00 Coffee Break.

10:30 240. Electrocatalytic reduction of nitrate to ammonia at oxidized vanadium surfaces with V (3+) and V (4+) oxidation states. **Q. Adesope, M. Altafi, S. Amagbor, V. Mesilov, K. Jeffrey**

11:00 241. Interface-modulated kinetic differentials as a key design principle for redox photocatalysis by Sb₂VO₅/QD heterostructures. **J. Ayala, K. Garcia-Pedraza, A. Giem, U. Wijethunga, S. Hariyani, J.L. Carrillo, D. Watson, S. Banerjee**

11:30 242. *Operando* Infrared Nanospectroscopy of Electrochemical Interfaces. **J. Larson, Y. Lu, A.I. Baskin, X. Zhao, P.D. Ashby, D. Prendergast, H. Bechtel, R. Kostecki, M. Salmeron**

High School Educators Symposium

A. Chu, *Organizer*

M. C. De Mesa, K. Moos, *Presiding*

Ranger 110

8:00 Registration (on-site).

8:30 Symposium Introduction/Trivia.

9:15 243. Let's RAMP it up: Chemical safety management for high school laboratories. **K.J. Humphrey**

10:00 Coffee Break.

10:30 244. STEM students' perspectives, experiences, and expectations pertaining to genAI. **C. Sells**

11:15 245. Integrating ChatGPT in the chemistry classroom. **A. Iyer, C. Zavacki**

New Instrumentation, Trends, and Methods in Mass Spectrometry

T. Solouki, *Organizer, Presiding*

Lone Star 104

8:00 Introductory Remarks.

8:05 246. Protein footprinting by water photolysis. **K.K. Murray, O. Ogundairo**

8:35 247. Advancing the glyco toolbox: developing new sensitive MS-based methods to characterize glycan and glycopeptide isomers. **Y. Mechref**

9:05 248. Multi-omic analysis of Ebola infection. **B. Russell, L. Palmer, T. Romsdahl, J. Linares**

9:35 Intermission.

9:45 249. Novel approaches for physiologically relevant structural proteomics studies. **P.K. Singh, L. Perez, S. Pardo, S.T. Weintraub, Q. Shi, O. Klykov**

10:15 250. Improving ion activation on a Fourier transform ion mobility (FT-IM) Orbitrap mass spectrometer using a quadrupole ion guide. **K. Evans, R. Schrader, C. Lantz, D.H. Russell**

10:35 251. Leveraging protein unfolding and refolding dynamics to explore UV and IR laser ablation properties for native mass spectrometry imaging. **N. Feizi, K.O. Hayes, B.C. Egbejiogu, K.B. Hines, K.K. Murray, T. Solouki**

10:55 252. *iprm*-PASEF: An integrated workflow for the analysis and interpretation of spatial on-tissue tandem mass spectrometry of lipids. **N. Tao, B. Heijs, S. Deininger, N. Kessler, A. Fuetterer, A. Behrens, C. Henkel, N. Smit, S. Ramachandran, A. Eshghi, K. Stumpo**

11:25 Concluding Remarks.

Small Molecule Modulators of Cellular Function - Biology

T. Mitchell, D. Romo, *Organizers*

M. E. Abbasov, *Presiding*

Texas 115

8:00 253. Precision chemistry and activity-based proteomics for posttranslational control of protein function. **M.E. Abbasov**

8:30 254. Phenotypic drug discovery rejuvenated with new technologies for target identification. **D. Nijhawan**, J.K. De Brabander, J. Ready, T. Qin

9:00 255. Stereoisomeric probe sets for ligand identification via chemical proteomics. **Y. Tao**, M. Schafroth, D. Ogasawara, J.G. Felber, Z. Zou, D. Remillard, E. Njomen, J. Remsberg, E. Vinogradova, M. Yokoyama, D. Schwefel, C. Ye, B. Melillo, X. Zhang, C. He, S.L. Schreiber, B.F. Cravatt

9:30 Coffee Break.

10:00 256. Targeting bacterial virulence through two-component system signaling. **E.E. Carlson**

10:30 257. Dual leucine zipper kinase (DLK) inhibitors for the treatment of chemotherapy-induced peripheral neuropathy (CIPN). **g. liu**

11:00 258. Fully-functionalized natural products to expand the ligandable proteome. **C.M. Chaheine**

11:30 259. Pharmacophore-directed retrosynthesis applied to the selective TRPM7 ion channel inhibitor waixenicin A. **B. Gong**, M.R. Parris, S.A. Kiledal, S. Suzuki, A. Fleig, F.D. Horgen, D. Romo

11:45 260. Pharmacophore-directed retrosynthesis applied to the synthesis of curromycin a employing designed alkynyl proteomic probe intermediates. **C. Song**, M. Schwartz, C. Chaheine, S. Ranganathan, S. Sieber, J. Taube, D. Romo

Targeting the Tumor Microenvironment

K. G. Pinney, *Organizer, Presiding*

Texas 114

8:00 261. Multimodal imaging to evaluate tumor oxygenation, vasculature and vascular disruption for drug development. H.I. Wanniarachchi, K. Hamal, C. Pavlich, K.G. Pinney, M.L. Trawick, L. Liu, **R.P. Mason**

8:30 262. Targeting phosphatidylserine in the tumor microenvironment. **R.A. Brekken**

9:00 263. Repurposing cytotoxic chemotherapeutics as immune adjuvants to improve cancer treatment. **A. Risinger**, C. Fermaintt, L. Takahashi-Ruiz

9:30 264. Development of chemical reactions to advance drug discovery. **U.K. Tambar**

10:00 Coffee Break.

10:30 265. Caffeic acid phenethyl amide (CAPA) and analogues active against neuroblastoma. **S.M. Kerwin**

11:00 266. Small molecule activators of the integrated stress response for the treatment of leukemia. **J. Ready**

11:30 267. Betabody drug conjugates (BDCs) and antibody drug conjugates (ADCs) targeting phosphatidylserine (PS) in the tumor microenvironment with potent antimetabolic/vascular disrupting agents. **M.L. Trawick**, R.A. Brekken, K.G. Pinney

Undergraduate Symposium

J. R. Ingle, *Organizer, Presiding*

Ranger 106/107

8:00 Introductory Remarks.

8:05 268. Targeting aberrant protein phase separation in human disease. **C.F. Knox**, O.L. Kipp, J. Nepogodin, L.R. English, S. Whitten

8:20 269. Novel cell death independent mechanism of acute anthracycline exposure in human cardiac fibroblasts. **K. Sadaka**

8:35 OPEN 270. **MOVED to Sunday poster session P007** - Synthesis of chloropyridinol derivatives as possible histone deacetylase inhibitors (HDACi). **D. Abbott**, H. Shin, P. Pyenta

8:50 271. Pharmacophore-directed retrosynthesis applied to ophiobolin A: Potential cancer stem cell selective agent. **A. Hills**, J. Aroujo, H. Parker, J. Taube, D. Romo

9:05 Intermission.

9:10 272. Synthesis of Methotrexate loaded Poly L-lactic acid combined with a hydrogel for treatment of Rheumatoid Arthritis. **A. Khodair**

9:25 273. Rapid detergent solution phase separation driven formation of 2D nanosheets from membrane proteins and block copolymers. **K. Kimball**, R.J. Vogler, D. Bujanos, M. Kumar, B.D. Freeman

9:40 274. Tuning the phase separation properties of detergents for the crystallization of membrane proteins and block copolymers. **D.D. Bujanos**, R.J. Vogler, K. Kimball, B.D. Freeman, M. Kumar

9:55 275. Characterization of genes essential for hydrocarbon degradation by *Pseudomonas aeruginosa*. **T.A. Nguyen**, N. Del Campo, A. Rame, J.E. Dannatt, W. Cody

10:10 Coffee Break.

10:25 Introductory Remarks.

10:30 276. SPIDRR technique for measuring microcanonical rate constants of transition metal-mediated reactions. **W. Smith**, D.J. Bellert

10:45 277. Toward magnetic 2D lanthanide-based materials. **R. O'Shea**, A.B. Altman

11:00 278. Understanding linear scaling relations based on energy decomposition analysis. **J.D. DiCenso**, C. Lander, Z. Pei, T. Le, K. Gunasooriya, B. Wang, Y. Mao, Y. Shao

11:15 279. Characterizing surfactants and adsorbed asphaltene mimics in crude oil using self assembled monolayers. **O. Guzmán**, I. Guzmán, R.S. Thompson

11:30 280. Adsorption of complex molecules on SAMs to model crude oil mixtures: A quartz crystal microbalance (QCM) method development study. **I. Guzmán**, O. Guzmán, R.S. Thompson

11:45 281. Hybrid conferences: Attendee demographics and carbon footprint consequences. **B.S. Dawson**, R.J. Vogler, M. Gilb, H. Oh, M. Kumar

Stone Symposium: Unusual Structure, Reactivity, and Properties of Inorganic Species

C. Martin, S. Yruegas, *Organizers, Presiding*

Texas 113

8:45 Opening Remarks.

9:00 282. Building polynuclear clusters one metal atom at a time. M. Osei, H. Xu, N. La, A. Valles, Y. Moon, **R. Hernandez Sanchez**

9:25 283. Atomically precise metal cluster chemistry with stibine-based ligands. **A. Das**

9:50 284. Mechanistic studies of C-H activation in (PBP)Ir Complexes. V.T. Nguyen, R.N. Sladek, N. Bhuvanesh, J. Zhou, **O. Ozerov**

10:15 Coffee Break.

10:35 285. Organometallic reactivity modulated by dynamic coordination of a phosphine 1-azaallyl ligand. **J.M. Blacquiere**

11:15 286. Ligand flexibility and reactivity with tetrapodal metal complexes. J.M. Moore, H. Cho, **A.R. Fout**

11:40 287. Binary organometallics of PF₃ and CO in heterogenous systems – applied process development. **A.E. Carpenter**, B. Syring

MONDAY AFTERNOON

Bioinorganic Chemistry

P. J. Farmer, *Organizer, Presiding*

Texas 114

- 1:00 288.** Interrogating nitrite reduction intermediates with a non-heme iron complex. **J. Moore**, A. Fout
- 1:30 289.** Fluorescent protein based Zn²⁺ sensors for tracking labile Zn²⁺ in aerobically and anaerobically grown *Escherichia coli*. **H. Nguyen**, U. Huynh, M.L. Zastrow
- 2:00 290.** *Engineering anaerobic FRET sensor for the detection of zinc ions in live cells.* **O. David**
- 2:30 291.** Carboxylate-rich cobalt(II) complexes as phosphoesterase mimics in aqueous media. **G.T. Musie**
- 3:00** Coffee Break.
- 3:30 292.** Synthesis and Characterization of Bismuth Nanoparticles as Imaging Contrast Agents. **A. Martino**, F. Mangano, B. Fallon, E.P. Greene, N. Mathuria, R.C. Willson, C.S. Filgueira
- 4:00 293.** Proton-coupled electron transfer at a mis-metalated zinc site detected with protein charge ladders. **M. Gonzalez**, M.J. Guberman-Pfeffer, J. Koone, C.M. Dashnaw, T.J. Lato, B.F. Shaw

Computational and Theoretical Chemistry

K. L. Shuford, *Organizer, Presiding*

Texas 116

- 1:00 294.** Unraveling the transport mechanism in fluoride ion channel. K. Mills, **H. Torabifard**
- 1:30 295.** Application of AI in drug discovery. **G. Sharma**
- 1:50 296.** SmartCADD: AI-QM Empowered Drug Discovery Platform with Explainability.. **A. Mahamada Kalapuwage**, E. Laird, C. Clark, E. Kraka
- 2:10 297.** Using multiscale simulation to understand the impact of substituents modification in photo-isomerization of photostatins. **a. bakhtiari**, R. Liang
- 2:30 298.** Determination of the mechanism of controlled drug release from azobenzene-containing phosphatidylcholine liposomes using molecular dynamics simulations. **H. Mohammed Nazar**, K.A. Alberto, Z. Qin, P.A. Slesinger, S.O. Nielsen
- 2:50** Coffee Break.
- 3:20 299.** Generating molecules with specific boiling points and melting points. **S.A. Alexander**
- 3:40 300.** DFT study on iridium-catalyzed activation and silylation of inert γ -sp³-C-H. **Y. Fan**
- 4:00 301.** Conversion of biomass lignin derivatives into aromatic hydrocarbons: A quantum chemical study. **b. bangaru**
- 4:20 302.** Reactivity of methyl diruthenium complexes with CO, Bipyridine and DPPM ligands. **S. Handunneththige**, X. Yang, R. Downey, R.M. Chin, M.B. Hall
- 4:40 303.** QM/MM computations of active sites in hemoproteins. **M. Freindorf**, E. Kraka

Materials and Interfaces

Z. Zhang, *Organizer, Presiding*

Texas 118

1:00 304. Selective deposition three ways: Chemical bath deposition of metal sulfides on organic substrates. **A.V. Walker**

1:30 305. Non-contact thermometer for measuring surface temperature of photothermal catalysts using near-infrared blackbody radiation spectrum. **J. Bao**, M. Chirom, C. Qin, A. Lim, S. Baldelli, F. Robles Hernandez, D. Liu, V. Hadjiev, X. Shan, S.M. Louie, F. Lin

2:00 306. Terahertz time-domain spectroscopy of quantum materials. **D. Hilton**

2:30 307. Role of Surface/Interface Phenomena in Antibacterial Action of Nano- and Microscale Zinc Oxide, Gallium Oxide, and Gallium Hydroxide. **Y. Strzhemechny**

3:00 Coffee Break.

3:30 308. Diatom Photonic Crystals for Chemical and Biological Sensing. **A. Wang**

4:00 309. Synthesis, Characterization, and Application of 2D Inorganic/Polymer Heterostructures. **y. zhu**, J. Lou

4:30 310. Engineering atomically thin semiconductors with moiré ferroelectricity. **D. KIM**, Y. Miyahara, X. Li

Molecular Imaging and Reporter Strategies

R. P. Mason, *Organizer, Presiding*

Ranger 106/107

1:00 Ralph Mason.

1:05 311. Precision imaging. **M.G. Pomper**

1:35 312. Glycoprotein-targeted radionuclide theranostic pair for CRC. **H. Manning**, R. Ta, A. Yamaguchi, R. Coll, K. McBride, S. Chauhan

2:05 313. Renal clearable nanoprobes for biomedical imaging. **J. Zheng**

2:35 314. Development of small molecule dyes and peptide-based contrast agents detectable using optoacoustic imaging. **L. McNally**

3:05 Coffee break.

3:30 315. 1,2-Dioxetanes for chemiluminescence imaging in cells and mammals. **A.R. Lippert**

4:00 316. Development of synthetic strategies to access fluorophores for biomedical research. **S.M. Usama**

4:30 317. Fluorescent sensors for imaging insulin secretion in vitro and in vivo. J. Gu, H. Zhang, **W. Li**

New Instrumentation, Trends, and Methods in Mass Spectrometry

T. Solouki, *Organizer, Presiding*

Lone Star 104

1:00 Introductory Remarks.

1:05 318. Proteome dynamics using metabolic labeling with deuterated water and LC-MS. **R.G. Sadygov**

1:35 319. Chemical tools for signature ion tracking in tandem MS: Applications to proteolytic and lipid modifications. **S.M. Chowdhury**, Z. Fang

2:05 320. An Integrated native ESI-MS approach for thermodynamic analysis of protein complex-ligand binding reactions. **D.H. Russell**

2:35 Intermission.

2:45 321. Mild and efficient Cu-catalyzed coupling reactions enabled by in situ electrolytically generated Cu cations in nanoelectrospray. **A. Sengupta**, D. Gunasekera, S. Xu, X. Yan

3:05 322. Determining thermodynamics of protein-lipid interactions using native mass spectrometry. **S. Kumar**, A. Laganowsky

3:25 323. Comparing the stability and strength of protein-ligand complexes in positive- and negative-ion mode native-like mass spectrometry. **M.G. Bannon**, M.S. Cordes, A.M. Cupples, E.S. Gallagher

3:45 324. Untargeted single cell lipidomics using trapped ion mobility spectrometry. **B. Wang**, J. Kim, D. Mun, S. Meyer, A. Barsch, E. Forsberg, A. Pandey, S. Byeon

4:15 Concluding Remarks.

Small Molecule Modulators of Cellular Function - Synthesis

Cosponsored by ORGN

D. Romo, *Organizer*

T. Mitchell, *Organizer, Presiding*

Texas 115

1:00 325. Oxidopyrylium-Based (5 + 2) Cycloadditions: *Old Roads, New Pathways*. **T. Mitchell**

1:30 326. Mild, additive-free thioetherification via proton transfer dual ionization mechanism. **C.R. Zwick**

2:00 327. Optimization of novel inhibitors of mycolic acid synthesis as TB drug candidates. **J.M. Schomaker**, J. Kim, P. Bartolomeu-Halicki, K. Rohde

2:30 Coffee Break.

3:00 328. G9A Inhibition: Induction of fetal hemoglobin for the treatment of Sickle Cell Disease. **M. Zancanella**

3:30 329. Total synthesis of dragocins A–C via electrochemical cyclization. **N.J. Truax**, B. Smith, A. Pollatos, M. Meanwell, P. Bedekar, A. Garrido-Castro, P.S. Baran

4:00 330. Discovery of a potent, selective, and efficacious small molecule inhibitor of NNMT as a potential therapeutic for treating solid tumors. **K. Kong**

4:30 331. Pharmacophore-directed retrosynthesis applied to ophiobolin A: Total synthesis, derivatization, and biological studies. **J. Aroujo**, Y. Tao, A. Hills, H. Parker, S. Ranganathan, J. Taube, D. Romo

4:45 332. Pharmacophore-directed retrosynthesis applied to talaromynoid H: Synthesis of the tetracyclic core and further elaboration to increasingly complex targets. **A. Youman**, P. Junghans, D. Romo

Synthesis and Growth of Nano to Bulk Solids for Energy and Environmental Applications

J. Chan, R. T. Macaluso, *Organizers, Presiding*

Lone Star 103

1:00 Welcome.

1:15 333. Evaluating the respiratory health effects of novel nano-enabled composites relevant to military applications. **C.M. Sayes**

1:35 334. Exercising synthetic control over the structures and photoelectrochemical properties of metastable semiconductors. **P.A. Maggard**

1:55 335. Understanding and controlling structural phase transitions in sodium-ion battery materials. **J. Bocarsly**

2:15 336. Designing and Architecting Battery Electrode Materials Across Length Scales. **S. Banerjee**

2:35 337. Novel narrow-bandgap heteroanionic oxypnictide semiconducting Zintl phases for thermoelectric applications. **S. Baranets**

2:55 Coffee Break.

3:10 338. Nanostructured bimetallic oxides and hydroxides: Designing active, stable and accessible materials for batteries and water splitting. **C.P. Rhodes**

3:30 339. Design Of Fluoride-Ion Battery Insertion Anodes based On Stereochemically Active Lone Pairs. **S. Hariyani**, G. Agbeworvi, A. Pakhira, C. Weiland, C. Jaye, L. Ma, S. Banerjee

3:45 340. Synthesis and phase stability of praseodymium ternary intermetallics. **M. Copeland**, A. Dominguez-Montero, G. McCandless, K. Wei, B. Schundelmier, J. Chan

4:00 341. Synthesis and Characterization of a series of Pressurized Lanthanide Diiodides. **H. Jemison**, A.B. Altman

4:15 342. Factors influencing activity and stability of Ru-based oxygen evolution electrocatalysts. **Z. Naymik**, C.P. Rhodes

4:30 343. New Eu(II)-containing chalcogenides with high SHG activities: Syntheses, crystal structures, electronic structure calculations and physical properties. **S. Jana**, P.A. Maggard

High School Educators Symposium

M. C. De Mesa, *Organizer*

A. Chu, K. Moos, *Presiding*

Ranger 110

1:30 344. Everything moles. **J. Flint**

2:15 345. Enhancing understanding of complex concepts through station-style introductory activities in the high school chemistry classroom. **C. Alexander**

3:00 Coffee Break.

3:30 346. The students become the teacher: Activities to visualize chemistry. **K. Moos**

Mechanisms of Genomic Repair and Mutagenesis

Cosponsored by TOXI

M. A. Trakselis, *Organizer, Presiding*

Texas 117

1:30 347. APOBEC mutagenesis in cancer. **R. Harris**

2:00 348. Mechanism of Smc5/6-mediated protein sumoylation in genome maintenance. **X. Xue**, J. Fan, P. Gallegos, X. Zhu, J. Epps, K. Holland, S. Li, X. Zhao

2:30 349. Ablating Ku70 phosphorylation disrupts the repair of non-ligatable DNA double-strand break ends resulting in increased radiation-induced genomic instability and carcinogenesis. **A. Davis**

3:00 350. Oxidative stress results in the accumulation of DNA damage within alternative DNA structures resulting in aberrant mutagenic processing. **M. Zewail-Foote**, I.M. del Mundo, A.W. Klattenhoff, K. Vasquez

3:15 Break.

3:45 351. The role of RING-between-RING (RBR) ubiquitin E3 Ligases in DNA repair. **J. Leung**

4:15 352. Structural basis of DNA Polymerase Theta (PolQ) mediated error-prone DNA synthesis and DNA double-strand break repair. **Y. Gao**

4:45 353. Formation and repair mechanisms of DNA-Histone cross-links. **K. Yang**

Stone Symposium: Unusual Structure, Reactivity, and Properties of Inorganic Species

C. Martin, S. Yruegas, *Organizers, Presiding*

Texas 113

1:45 354. Pnictogen bonding in solution. **A.F. Cozzolino**

2:10 355. Intramolecularly capping chalcogen oxides with boron Lewis acids. **B. Murphy**, F.P. Gabbai

2:35 356. Design and coordination chemistry of new NNN-based pincer ligands incorporating heavy Group 16 elements as pendant soft Lewis acids. A.L. Amaya, L. Delgado Cordoba, M. Abbasichaleshtori, H. Arman, A.F. Cozzolino, **Z.J. Tonzetich**

3:00 Coffee Break.

3:20 357. CO extrusion from a Ni Phosphaethynolate: Characterization and mechanistic insights. **M.T. Figgins**, R.R. Thompson, D.C. Wannipurage, A. Renteria-Gomez, A. Gogoi, J.A. Telser, D.L. Tierney, O. Gutierrez, D. Powers

3:45 358. Normal ligand field, inverted ligand field or other: applicability of the ligand field model in compounds that display unusual bonding patterns. **J. Shearer**

MONDAY EVENING

Gooch-Stephens Award Lecture

D. J. Bellert, *Organizer, Presiding*

McLennan Hall

5:45 Introductory Comments.

6:00 359. Capturing the molecular level mechanics driving bulk chemical behaviors from catalysis to the spectral dynamics of interfacial water with cryogenic ion spectroscopy. **M.A. Johnson**

6:55 Gooch-Stephens Award.

POSTER SESSIONS and EXPO and GRADUATE FAIR and RECEPTION

Brazos Ballroom

7:00 - 9:00 pm

Biochemistry Poster Session

L. R. Marshall, *Organizer*

360. Computational modeling of "chemically ready" conformations for enzyme catalysis studies. **S. Ranasinghe**, R. Van, X. Pan, Y. Shao

361. Selective delivery of anticancer agent KGP18 by a plasmin-cleavable drug-linker construct in the pancreatic tumor microenvironment. **P. Tankoano**, K. Hamal, W. Ren, R. Francis, K.G. Pinney, M.L. Trawick

362. Investigations of redox-based post-translational modifications on *Arabidopsis thaliana* stearyl-ACP-desaturase. **C. King**, P. Horn

363. Synthesis and application of activity-based probes with tetrazole reactive groups for labeling glycoside hydrolases in gut commensal bacteria.. **J. Russo**, A.T. Wright

364. Towards studies of PRODH enzyme dynamics using X-ray crystallography. **F. Akter**, D. P. Buckley, J. Tanner, J. Clinger

365. Translesion synthesis (TLS) polymerases Eta and Rev1 coordinate their activities for efficient lesion bypass and on noncanonical templates. **T.I. Punchipatabendi**, **S. Disha**, **J. Kaszubowski**, **H. Chu**, **M.A. Trakselis**

366. Specific little finger residues i.e. Pinky Trigger in Y family polymerases restrict downstream synthesis past lesion. **S. Disha**, J. Kaszubowski, T.I. Punchipatabendi, J. Pata, M.A. Trakselis

367. Development of a single particle CryoEM pipeline at Baylor University. **J. Koone**, D. Berti, B. Zechmann, J. Clinger

368. In-cell directed evolution of a ratiometric fluorescent biosensor for chloride. **S. Phelps**, J. Tutol, S. Dodani

369. Structural and biochemical characterization of Rad7-Rad16 in *Saccharomyces cerevisiae* nucleotide excision repair. **C. Hewa Bhashithage**, J. Min

370. Influence of intramolecular epistasis on catalytic promiscuity and enzyme specificity among protein homologs. **G. Owusu-Addo**, A. McMilla, D. Odokonyero, M. Zhu, K. Hull, D. Rom, M. Glasner

371. Investigation of replication restart pathways utilized to mitigate replisome decoupling in *Escherichia coli*. **S. Fernando**, **C. Agadagba**, M.A. Trakselis

- 372.** Rescuing Lactoperoxidase Expression with CRISPR/Cas9 system and Antagomirs to Mitigate Lung Inflammation in smokers and COPD patients. **M.J. Santiago**, S. Chinnapaiyan, K. Panda, M. Rahman, S. Ghorai, H.J. Unwalla
- 373.** Characterization of a non-NFK dioxygen product catalyzed by a bacterial putative TDO. **D.W. Valencia**, I. Shin, D. Wherritt, A. Liu
- 374.** Analyzing energy transference in the γ Subunit of *Escherichia coli* ATP synthase through terminus extension. **E.T. Victor**, Y. Li, M. Stankus, A. Penny
- 375.** Fluorescence quenching of human serum albumin by organochlorine pesticides. J. Luke, L. Hicks, A. Mishra, **R. Yadav**
- 376.** Using circular dichroism to explore favored alpha helical stability in designe peptides. **E. Kingston**, **A. Malladi**, J.A. Hebda
- 377.** Exploring the mechanosensitive behavior of PIEZO ion channels: A computational study on conformational dynamics. **O. Saibu**
- 378.** Computational modeling of C-terminal loop of voltage-gated sodium channel 1.4 in humans and grasshopper mice. **E. Jones**, R. Van, A. Rowe, Y. Shao
- 379.** Probing the metalation state dynamics of histone deacetylases. **L. Kimberly**, E.L. Que
- 380.** Structural dynamics of PriB, a C-prenyltransferase. **O. Ogundele**, J. Clinger
- 381.** Site-specific contacts that activate DNA unwinding by HROB/MCM8/9. **C. To**, C. Li, Y. Gao, M.A. Trakselis
- 382.** Examining the energy transmission mediated by two loops in the γ subunit of *Eschericia coli* ATP Synthase. **A. Penny**, M. Stankus, E. Victor, Y. Li
- 383.** Dynamics study of Ornithine Decarboxylase: Applications in structural biology. **K.P. Ezennubia**, J.C. Koone, J. Clinger
- 384.** Interference of Kaempferol and its derivatives in amyloid beta-peptide aggregation: AFM and optical spectroscopic approaches. **B. Sengupta**, R. Friedfield
- P001.** Mechanism of the Rad34-Rad23-Rad33 in RNA Polymerase I-associated transcription-coupled nucleotide excision repair of yeast. **M. Dalpathadu**, L. Pham, K. Murakami, J-H. Min
- P006.** Structural and functional understanding of the eukaryotic Global Genome Nucleotide Excision Repair pathway. **T. Adeniran**, L. Pham, K. Murakami, J-H. Min

Environmental Chemistry and Toxicology Poster Session

G. P. Cobb, C. M. Sayes, *Organizers*

- 385.** Zero-valent iron nanoparticles differentially affect diverse bacterial species. **B.J. Carnathan**, M. Stevens, C.M. Sayes
- 386.** Microgel composites using carbon nanotubes as flocculants for sustainable environmental applications. **M. Islam**, P. Otuokere, V. Robinson, Y. Gao
- 387.** Utilizing rapid enzymatic activity model (REAM) to decipher potential toxicity mechanisms of herbicides- glyphosate and atrazine. **L.K. Vuu**, P.C. Obiako, C.M. Sayes
- 388.** Synergistic optimization of microalgae *Chlorella vulgaris* carbon sequestration through photocatalytic utilization of ZnO nanoparticles. **L.P. Salmeron-Covarrubias**, K. Beluri, H. Sharifan
- 389.** Effect of metal-organic framework(MOF) particle size on chromate removal from aqueous solutions. **o. Raji**
- 390.** Receptor-ligand relationship of *Aedes aegypti* IR75D and hexanoic acid. **M. Chembars**, J. Pitts

391. Using ferrihydrite to capture inorganic arsenic from subrogate fertilizers. **R. Smith**, B. Perry, D. Toole, G.M. Chiarella
392. Capturing inorganic arsenic from fertilizers by using goethite as a metal complexation technique. **B. Perry**, R. Smith, D. Toole, G.M. Chiarella
393. Optimization of chitin extraction using deep eutectic solvents. **S. Holdar**, D. Gibson II
394. Plant-based dyes as alternative fluorescent for microplastics under a microscope. **M. Cervantes**, K.L. Bryan, I. Nowowiejski, D. Gibson II
395. Microbial Biofilm Formation by *Bacillus thuringiensis* in treated wastewater from deep east Texas wastewater treatment plants. **O.O. Ogunlewe**, P. Baker, B. Sengupta
396. Selective removal of dyes from water using quality-downgraded fluorinated single-walled carbon nanotubes. **P.U. Otuokere**, M. Islam, V. Robinson, Y. Gao
397. **Withdrawn**
398. Chlorhexidine interaction with microcrystalline cellulose. **U. Joshi**, **M. Martinez**, J.D. Beatty
399. Determining the effect of atmospheric pollution on *Sphagnum* in north England peatlands. **A. Treadway**, L. Horton, A. Creevy, J. Clear
- P005.** Detection of Polycyclic Aromatic Hydrocarbons via Fluorescence Resonance Energy Transfer. **V. Salazar**, N. McDaniel, H. Fernando

Organic Chemistry Poster Session

N. Matsumoto, *Organizer*

400. Chemical safety and security challenges in academic institutions in southern region of Somalia. **A.S. Mohamed**
401. Biocatalytic Aza-Michael addition of aromatic amines to enone using α -Amylase in water. **S. DUTT**
402. Design, Synthesis and Structure-Activity Relationship of CNS Penetrant Small Molecule ER-Beta Agonists for Glioblastoma (GBM) Therapies. S.F. McHardy, **A. Maciolek**, U. Pratap, S. Viswanadhapalli, M. Tidwell, K. Nieves-Merced, A. Brenner, R. Vadlamudi
403. Development of potent and selective YAP-1 inhibitors and degraders: Lead optimization and *in vitro* proof- of-concept studies. S.F. McHardy, **L. Barrera**, U. Saran, R. Amaradhi, P. Barrodia, S. Satpati, B. Singh, K. Rai
404. Synthetic strategies towards Fusicocane diterpenoids. **D. Henderson**, J.L. Wood
405. Coupling photocatalysis and substitution chemistry to expand and normalize redox-active halides. **M. Rathnayake**, J.D. Weaver
406. Total syntheses of erchinines a and b. **Y. Cho**, J.L. Wood
407. Investigation of Cobalt(II) complexes for photocatalyzed reactions under visible light irradiation. **S. Pal**, S. Pitre
408. Chemiluminescent 1,2-dioxetane for imaging of hypochlorous acid. **C. Griffin**
409. Mechanistic studies of the decomposition of 1,2-dioxetanes in aqueous conditions. **M. Castro**
410. Diazo Compounds and pH Control: Separating Sidechain and C-terminal Reactivity. **A. Omere**
411. Catalytic chemo-, regio-, and diastereoselective bromochlorination of (poly)unsaturated starting materials. **A.E. Lubaev**
412. Computer aided drug design and synthesis of voltage-gated sodium channel inhibitors. **C.B. DeVerter**, N.A. Clanton, D. Biscardi, D.E. Frantz
413. Synthesis of 1,2,3,5-Tetrasubstituted-1*H*-Indoles via a Domino Reaction Sequence. **S. MAJI**, K. Fobi, E. Ametsetor, R.A. Bunce

414. Convergent total synthesis of Aleutianamine. **J.P. Tuccinardi**, J.L. Wood
415. Copper ion specific chemiluminescent probe. **R. Osman**
416. Halogen-bonding photocatalysis using carbazole-based electron donor catalysts. **N. Shafiei**, T. Tasnim, S. Pitre
417. *Expanding the scope of SuFEx nucleophiles beyond amines and alcohols*. **A. Choudhury**, Q. Michaudel
418. Total synthesis of (-)-flueggeosine C. L. Liu, **T. Olson**, J.L. Wood
419. Pharmacophore-directed retrosynthesis applied to colletotrichone A. **J. Yoder**, W. Ding, S. Sieber, D. Romo
420. Design and synthesis of proteolysis targeting chimeras (PROTACs) for tubulin degradation. **C. Borchardt**, K.G. Pinney
421. Design of a molecular motor based on a redox switchable aminoxyl ring. **C. Ou**, Y. Feng
422. Near-infrared chemiluminescent 1,2 Dioxetane probe for the detection of Copper (II) Ion. **G. Chen**
423. Photolytic access to spirodihydrofurans and chromenes from vinyl diazo ester cycloaddition with p-quinones. **S. Fremin**
424. Pharmacophore-directed retrosynthesis applied to Thia-Salarin C. **M. Parris**, E. Woods, R. Jourdain, H. Xue, D. Romo
425. Radical reactions with chiral acylammonium salts: Synthesis of functionalized delta-lactams through Giese-initiated organocascades. P.J. Sutter, **B. Walker**, K. Kasper, V. Kojasoy, D.J. Tantillo, D. Romo
426. Iridium-catalyzed enantioselective conjunctive cross-coupling of bis(alkenyl)boronates. **M. Tran**, J. Ready
427. Chemomechanical characterization of V₂O₅ single crystals via nanoindentation and in situ lithiation. **V.H. Balcorta**, R. Lee, R. Patel, S. Kotze, A. Maji, J. Ponis, C. Walker, G. Pharr, K. Xie, S. Banerjee, M. Pharr
428. Progress towards the total synthesis of nargenicin A1. **J. Olsen**
429. Synthetic studies for the development of an oxidative chiral resolution platform to access α -hydroxy carbonyl compounds. **W.A. Badmus**, M.E. Hinze
430. Palladium catalyzed rearrangement of 2-benzyloxyfurans into substituted butenolides. **J. Shah Gupta**
431. A vision-guided, high-throughput platform for liquid-liquid extraction screening. **S. Moor**, A. Sun
432. Deaminative C–C Cross Couplings Through 1,2-Dialkyldiazene Photosensitization and Nickel Catalysis. **M. Diaz**, D. Chattopadhyay, A. Aydogan, Q. Michaudel
433. Palladium-catalyzed borylative difunctionalization of alkenes. K.L. Hull, **H. Pham**, S. Bhatt, Y. Wang
434. Synthetic studies towards Atkamine. **C.F. Graf**, J.P. Tuccinardi, J.L. Wood
435. Pharmacophore-directed retrosynthesis applied to the immunomodulatory natural product aspertaichunol A. **T. Coburn**, D. Romo
436. Palladium-catalyzed cyanations of aryl imidazolylsulfonates with K₄[Fe(CN)₆]: A pragmatic approach to benzonitriles from phenols. **W.M. Palmer**, N. Wilson, D.E. Frantz, m. leverse, J. Coombs, J. Ganley, J. Albaneze-Walker
437. Directed synthesis of Agelastatin A derivatives with potential activity toward glioblastoma. **T. Goulart**, J. Taube, D. Romo
438. Amino Acid-Ni(acac)₂ complex catalyzed domino Michael-Henry Reaction of 1,2-Cyclohexanedione with Nitroolefins. **M. Cain**, B. Ni
439. Merck Chemistry: Discovery and small molecule process research & development. **S. Dishman**
440. Progress towards the synthesis of verrillin. **P. Duc**, J.P. Tuccinardi, J.L. Wood
441. Total synthesis of fusicoccane diterpenoid natural products. **W. Bonnet**

442. Study on the formation of diazaborolidines from phenylboronic acid derivatives and 1,2-diamines. **R. Pathirana Hewage**, D.E. Gross
443. Computational study on the hydrolytic stability of heteroboroles.. **G. Ariyaratne**, D.E. Gross
444. Application of pharmacophore-directed retrosynthesis to the dichapetalins. **N. Matsumoto**, E. Woods, T. Coburn, S. Lin, D. Ilangasinghe, G. Ross, D. Gann, D. Romo
445. Zirconocene hydride-catalysed transaminative dual reduction of amides via steady state imine. **A. Raj**
446. Synthesis, In-vitro and In-silico Evaluation of Novel Pyrazolone Hybrids as Potential Anticancer Agents. **S. Dahal**, S. Murru, P. Anim Addo, A. Agu, A. Gholamian Moghaddam
447. De novo synthesis of the derivatives of WaixenicinA. **U. Boddu**
448. *Withdrawn*
449. Building up maximum strain energy in a conjugated macrocycle. **C.S. Lawrence**, M. Mirzaei, M. Mirzaei, R. Hernández Sánchez
450. Investigation of the Benzyl Esterification of *trans*-Arylcycloalkenes. **H. Keith**, T. Schoch, J.D. Weaver
451. Optimization of co-catalytic coupling of secondary alkyl chloride; the curious role of Lutidine. **A. Ethridge**, P. Sharma, R. Hanumanthu, J.D. Weaver
452. *Withdrawn*
453. *Withdrawn*

Polymeric Materials Science and Engineering Poster Session

R. Foudazi, *Organizer*

454. Metal-Induced hydrogel and selective antibacterial nanomaterial synthesis using hydrophilic polypeptides. **J. Cho**, W. Yang, L. Hanna, W. Dodson, Y. Qamar, H. Galmiche, L. Allain, J. Revere
455. *Withdrawn*
456. pH-responsive zwitterionic material for bioremediation and biomedical applications. **M. Mukut**
457. Towards optimizing performance of foam-templated porous hydrogels. **S. Onyembe**, R. Foudazi
458. Detection of cortisol in human sweat using nitrogen-doped graphene quantum dots coated in a polyethylene oxide/polyaniline blend film. **C. Sanchez**, D. De Leon, A. James, N. Barbosa, A. Jalal, A. Mikhoyan, J. Parson, K. Lozano, V. Padilla
459. Sample Preparation and Analysis of Polyurethane Rigid Foams via Scanning Electron Microscopy. **T. Le**
460. Graphitic carbon nitride catalyze azo bond reduction by hydrazine under visible light. **G. Ollordaa**, L. Yingchun
461. Lyotropic liquid crystal-templated membranes from self-assembly of amphiphilic block copolymers. **S. Tabatabaei**, R. Foudazi
462. Thermally reversible and NIR light-sensitive agarose hydrogels for controlled drug release. **S. Bhuiyan**, T. Betancourt
463. Lipid metal-organic framework hollow colloidosomes. **J. Podliska**, R. Ravanfar
464. Morphology and crystallinity of gel polymer electrolytes containing Poly(ethylene oxide). **F. Naderi Samani**, R. Foudazi
465. Development of porous methylcellulose and cellulose acetate based fibers for applications in antibacterial wound dressing. **A. James**, D. Philips, E. Varughese, M. Uddin
466. Organic pollutant adsorption on synthesized metal-organic frameworks: Computational investigation. **M. Mapula**, S. Lin