

# ACS Regional MEA Conference – UAE

## "Chemistry for Future Sustainable Societies"

### Agenda

#### February 4, 2024 (Sunday)

Time	Activity	Time slot
9.00 – 5.00	Pre-registration at the Jannah Burj Al-Sarab Jannah Burj Al-Sarab Hotel (conference materials can be collected from the reception desk)	
9.00 – 5.45	Student workshop and symposium ( <i>agenda provided at the end</i> )	

#### February 5, 2024 (Monday)

Time	Activity	Time slot
7.00 – 8.00	Breakfast at the Hotel	
<b>8.00</b>	<b>Bus leaves the Jannah Burj Al-Sarab Hotel to NYUAD</b>	
<b>8.00 – 8.45</b>	<b>Registration on-site</b>	
8.45 – 9.00	Opening of the conference (Lecture Hall)	15 min
Plenary and keynote lectures (Lecture Hall)		
9.00 – 10.00	Plenary lecture 1 (Chair: Panče Naumov) Omar Yaghi, University of California-Berkeley <i>"How will Chemistry Solve the Climate and Water Problems on Our Planet – Fast"</i>	60 min
10.00 – 10.45	Keynote lecture 1 (Chair: Khaled Mamhoud) Yury Gogotsi, Drexel University <i>"Chemistry of MXenes"</i>	45 min
10.45 – 11.00	Coffee break and group photo (Atrium)	15 min
<b>Lecture Hall</b> <b>Session 1.1: Organic and polymer chemistry</b> <i>(Chairs: Maguy Abi Jaoude, Thies Thiemann)</i>		<b>Room 001A</b> <b>Session 2.1: Physical and computational chemistry</b> <i>(Chairs: Sharmarke Mohamed, Tynchtyk Amatov)</i>
11.00 – 11.30	Invited talk Hugo Bronstein, University of Cambridge	Invited talk 30 min

	<i>"Suppression of Dexter Transfer by Covalent Encapsulation for Efficient Matrix-Free Narrowband Deep Blue Hyperfluorescent OLEDs"</i>	Ayan Datta, Indian Association for the Cultivation of Science (IACS) <i>"Buckling and Defects in Two-Dimensional Atomically Thin Monolayers"</i>	
11.30 – 11.50	Helanka Perrera, Higher Colleges of Technology <i>"Effect of Chemical Modification on Date Palm Fibers"</i>	James T. Titah, Tabor College <i>"Exploring the Role of Homopolar Dihydrogen Bonding in Stabilizing the Solid-State Structures of Hydrogen Storage Materials: A Computational Approach"</i>	20 min
11.50 – 12.10	Md Ataur Rahman, New York University Abu Dhabi <i>"A Catalytic Enantioselective Stereodivergent Aldol Reaction"</i>	Tamador Alkhidir, Khalifa University of Science and Technology <i>"Machine Learning Framework for Screening of High-Mobility Organic Materials"</i>	20 min
12.10 – 1.30	Lunch (Atrium)		80 min
<b>Lecture Hall</b> <b>Session 1.2: Organic and polymer chemistry</b> <i>(Chairs: Maguy Abi Jaoude, Thies Thiemann)</i>		<b>Room 001A</b> <b>Session 2.2: Physical and computational chemistry</b> <i>(Chairs: Sharmarke Mohamed, Tynchtyk Amatov)</i>	
1.30 – 2.00	Invited talk Alan Healy, New York University Abu Dhabi <i>"Accelerating Natural Product Research: from Synthetic Planning to Stereodivergent Synthesis"</i>	Invited talk Thishana Singh, University of KwaZulu-Natal <i>"Computational Chemistry for Future Sustainable Societies: Understanding the Bioactivity of Natural Products"</i>	30 min
2.00 – 2.20	Na'il Saleh Ibrahim, United Arab Emirates University <i>"Molecular Engineering of Cucurbituril-Based Alginate Hydrogels"</i>	Mohamad Toutounji, United Arab Emirates University <i>"Mixed Quantum-Classical Liouville Equation Treatment of Electronic Spectroscopy of Condensed Systems: Harmonic and Anharmonic Electron-Phonon Coupling"</i>	20 min
2.20 – 2.40	Emmanuel E. Etim, Federal University Wukari <i>"Redefining Proton Affinity for Complex Heteronuclear Molecular Species: A Quantum Chemical Approach"</i>	Serdal Kirmizialtin, New York University Abu Dhabi <i>"The Mechanism of Like-Charge Attraction Between DNA Strands Revealed by Computer Simulations"</i>	20 min
2.40 – 3.50	POSTER SESSION A (Room 001C) (Posters "A")		70 min
<b>Lecture Hall</b> <b>Session 3.1: Biochemistry and medicinal chemistry</b> <i>(Chairs: Wael Rabeh, Saif AlQassim)</i>		<b>Room 001A</b> <b>Session 4.1: Inorganic and bioinorganic chemistry</b> <i>(Chairs: Nataša Tomić, Mansour Almatarneh)</i>	

3.50 – 4.20	Invited talk Shehab Ismail, Katholieke Universiteit Leuven <i>"Stabilization of the RAS-PDE6D Complex as a Novel Strategy to Target RAS Signaling"</i>	Invited talk Francis Verpoort, Wuhan University of Technology <i>"Carbon Dioxide Utilization Based on Novel Designed Materials"</i>	30 min
4.20 – 4.40	David Sheehan, Khalifa University of Science and Technology <i>"Nanoparticles as Novel Nucleation Agents in Protein Crystallization: Success with a Panel of Unrelated Proteins"</i>	James Darkwa, University of Johannesburg <i>"Pyrazolyl-Nickel Ethylene Oligomerization Catalysts: Ligand Enabled Supported Catalysts for Lubricant Synthesis"</i>	20 min
4.40 – 5.00	Aleksander Rebane, New York University Abu Dhabi <i>"Surface Passivation Method for the Super-repellence of Aqueous Macromolecular Condensates"</i>	Bhajan Lal, Northwestern University <i>"Robust 3D Linker Based Metal-Organic Frameworks (MOFs) for Hexanes Separation"</i>	20 min
5.00 – 5.15	Coffee break		15 min
<b>Lecture Hall</b> <b>Session 3.2: Biochemistry and medicinal chemistry</b> <i>(Chairs: Wael Rabeh, Saif AlQassim)</i>		<b>Room 001A</b> <b>Session 4.2: Inorganic and bioinorganic chemistry</b> <i>(Chairs: Nataša Tomić, Mansour Almatarneh)</i>	
5.15 – 5.45	Invited talk Hyeongseop Jeong, Korea Basic Science Institute <i>"Conformational Changes in the Human Cx43/GJA1 Gap Junction Channel Visualized using Cryo-EM"</i>	Invited talk Shabana Khan, Indian Institute of Science Education and Research Pune (IISER Pune) <i>"N-Heterocyclic Silylene-Copper(I) Aryl Complex: Access to Versatile Cu(I) Synthons"</i>	30 min
5.45 – 6.05	Mayssa Hachem, Khalifa University of Science and Technology <i>"Efficient Docosahexaenoic Acid Uptake by the Brain from a Structured Phospholipid"</i>	Safa Gaber, United Arab Emirates University <i>"Highly Stable 3D Conjugated Metal-Organic Framework for Energy Storage Applications"</i>	20 min
6.05 – 6.25	Elias AKoury, Lebanese American University <i>"Targeting Protein Misfolding in Drug Discovery for Neurodegenerative Disease"</i>	Ning Wang, University of Johannesburg <i>"Improving Harsh Environmental Stability of Few-Layer Black Phosphorus by Local Charge Transfer"</i>	20 min
6.25 – 6.45	Yamanappa Hunashal, New York University Abu Dhabi <i>"Unveiling the Dynamics of C. elegans Metabolism by NMR Spectroscopy"</i>	Emilia Oueis, Khalifa University of Science and Technology <i>"Inhibition of A. Baumannii ATP Phosphoribosyltransferase for the Treatment of Pneumonia Infections"</i>	20 min

February 6, 2024 (Tuesday)

Time	Activity	Time slot	
7.30 – 8.30	Breakfast at the hotel		
8.30	Bus leaves the Jannah Burj Al-Sarab Hotel to NYUAD		
8.30 – 9.00	Registration on-site		
Plenary and keynote lectures (Lecture Hall)			
9.00 – 10.00	Plenary lecture 2 (Chair: Maryam Khaleel) Susumu Kitagawa, Kyoto University “Chemistry and Application of Soft Porous Crystals”	60 min	
10.00 – 10.45	Keynote lecture 2 (Chair: Brijith Thomas) Panče Naumov, New York University Abu Dhabi “Dynamic Organic Crystals: A New Class of Smart Engineering Materials”	45 min	
10.45 – 11.00	Coffee break	15 min	
Lecture Hall Session 5.1: Materials chemistry and nanotechnology (Chairs: Na’il Saleh, Anis Allagui)		Room 001A Session 6.1: Environmental, green and food chemistry (Chairs: Jolly Jacob, Basheer Chanbasha)	
11.00 – 11.30	Invited talk Marieh B. Al-Handawi, New York University Abu Dhabi “Harvesting of Aerial Humidity with Natural Hygroscopic Salt Excretions”	Invited talk Afaf Kamal-Eldin, United Arab Emirates University “Phenolic Compounds of Fruits: Lessons from Dates (Phoenix dactylifera)” 30 min	
11.30 – 11.50	Philipp Hans, SESAME “Probing Ge-Rich Ge-Sb-Te Phase Change Material Thin Films in-situ by Synchrotron X-ray Radiation”	Dinesh Shetty, Khalifa University of Science and Technology “Focus on Energy & Environmental Applications: Can Framework Materials Listen to Your Tunes?” 20 min	
11.50 – 12.10	Dalaver H. Anjum, Khalifa University of Science and Technology “Scanning Transmission Electron Microscopy for the Nanocharacterization of Mixed Metal Nanocatalysts”	Xuan Li, Khalifa University of Science and Technology “Enhanced Organic Pollutant Photodegradation over a 2D/2D MoS <sub>2</sub> /Au/TiO <sub>2</sub> Z-Scheme Photocatalyst via Adsorption-Photocatalysis Synergy” 20 min	
12.10 – 1.30	Lunch (Atrium)		80 min
1.30 – 2.30	POSTER SESSION B (Room 001C) (Posters “B”)		60 min

Lecture Hall		Room 001A	
Session 5.2: Materials chemistry and nanotechnology (Chairs: Na'il Saleh, Anis Allagui)		Session 6.2: Environmental, green and food chemistry (Chairs: Jolly Jacob, Basheer Chanbasha)	
2.30 – 2.50	Saeed M. Alhassan, Khalifa University of Science and Technology <i>"Tapping into the Potential of Elemental Sulfur"</i>	Ranjith Bose, Khalifa University of Science and Technology <i>"Enhancing Water Oxidation Efficiency and Durability through Integration of Multiple Catalytic Active Sites"</i>	20 min
2.50 – 3.10	Tshepo Molefe, University of the Witwatersrand <i>"Fischer-Tropsch Synthesis: Osmium Promoted Co@HCS Catalysts"</i>	Mahira Bashri, Khalifa University of Science and Technology <i>"Sustainable Covalent Organic Framework Catalyst via Efficient Pd-Recovery from Wastewater"</i>	20 min
3.10 – 3.30	Brijith Thomas, New York University Abu Dhabi <i>"A Systematic Study on the Influence of Endogenous Organic Dopant BCF in Spiro-OMeTAD"</i>	Dina S. Ahmed <i>"Eco-Friendly Organic Polymers as Gas Storage Media"</i>	20 min
3.30 – 9.00	Desert safari and dinner off-site Pre-registration at the reception desk required on Feb 5 You have to register your name the day before the trip and pay the fee		

February 7, 2024 (Wednesday)

Time	Activity	Time slot
7.30 – 8.30	Breakfast at the hotel	
8.30	Bus leaves the Jannah Burj Al-Sarab Hotel to NYUAD	
Plenary and keynote lectures (Lecture Hall)		
9.00 – 10.00	Plenary lecture 3 (Chair: Saeed Alhassan) Erick Carreira, ETH Zurich <i>“New Strategies and Tactics in Natural Products Synthesis”</i>	60 min
10.00 – 10.45	Keynote lecture 3 (Chair: Sheikha Alneyadi) Ying-Wei Yang, Jilin University <i>“Pillararene-Inspired Synthetic Macrocycles: From Extended Pillar[n]arenes to Geminiarenes”</i>	45 min
10.45 – 11.00	Coffee break	15 min
PARALLEL SESSIONS (Lecture Hall and 001A)		
<b>Lecture Hall</b> <b>Session 7.1: Analytical and bioanalytical chemistry</b> (Chairs: Imad Hamadneh, Sherine Khattab)		<b>Room 001A</b> <b>Session 8.1: Chemistry in education and practice</b> (Chairs: Sreekumar Pankajakshan, Mohammad Siddiqui)
11.00 – 11.30	Invited talk Andreas Hennig, Osnabrück University <i>“Supramolecular Host-Guest Chemistry with Biomembranes”</i>	30 min
11.30 – 11.50	Rino Eposito, New York University Abu Dhabi <i>“Spontaneous Transformation of Avocado Acetate in Water”</i>	20 min
11.50 – 12.10	Soja Saghar Soman, New York University Abu Dhabi <i>“Chemical Sensing Using Micro-fluidic Paper Based Analytical Devices (μPADs)”</i>	20 min
12.10 – 1.30	Lunch (Atrium)	80 min
1.30 – 2.30	POSTER SESSION (Room 001C) (Posters “B”)	60 min

Lecture Hall <b>Session 7.2: Analytical and bioanalytical chemistry</b> (Chairs: Imad Hamadneh, Sherine Khattab)		Room 001A <b>Session 8.2: Chemistry in education and practice</b> (Chairs: Sreekumar Pankajakshan, Mohammad Siddiqui)	
2.30 – 3.00	Invited talk Syed Tufail Hussain Sherazi, University of Sindh <i>“Unsaponifiable Part of Vegetable Oil Deodorizer Distillate: An Innovative Capping Agent for Fabrication of the Silver Nanoparticles”</i>	Invited talk Anja Henning-Knechtel, New York University Abu Dhabi <i>“RNA Dynamics in PEG and Protein Crowding Environments”</i>	30 min
3.00 – 3.20	Shekha Al Kiyumi, Sultan Qaboos University <i>“Antibacterial Properties of Blepharispermum hirtum Extracts, Fractions, and Isolated Compounds against Bacterial Clinical Isolates”</i>	Imane Belyamani, Zayed University <i>“Advancing Brominated Post-Consumer WEEE Recycling and Assessing the Life Cycle of Debromination Treatments”</i>	20 min
3.20 – 3.40	Mark Benson, Rigaku Corporation <i>“Rigaku Advances in X-ray and Electron Crystallography”</i>	Ettigounder (Samy) Ponnusamy, Merck KGaA <i>“DOZN™2.1 - A Quantitative Green Chemistry Evaluator for a Sustainable Future”</i>	20 min
PARALLEL SESSIONS (Lecture Hall and 001A)			
Lecture Hall <b>Session 9.1: Applied chemistry</b> (Chair: Uzma Ashiq, Xu Lu)		Room 001A <b>Session 10.1: Chemistry and practice</b> (Chair: Durga Prasad Karothu)	
3.40 – 4.00	Emad Yousif, Al-Nahrain University <i>“Synthesis and Application of Levofloxacin–Tin Complexes as New Photostabilizers for Polyvinyl Chloride”</i>	Reza Zamani, Thermo Fisher Scientific <i>“Electron Beam Damage Mitigation Strategies in TEM for Novel Beam Sensitive Materials”</i>	20 min
4.00 – 4.20	Wolfgang Betz, Physical Electronics <i>“Advances in XPS Analysis of Battery Materials”</i>	Nour Hafi, Oxford Instruments <i>“Understanding Chemistry across the Forensic Science Lab”</i>	20 min
4.20 – 4.40	Angelo Lanzilotto, Merck KGaA <i>“Integrated Drug Discovery – Augmenting your Research Capabilities with AI and Improving Synthesis Outcomes”</i>	Xu Lu, King Abdullah University of Science and Technology (KAUST) <i>“Electrochemical Upcycling of High-pressure CO<sub>2</sub> into Valuables”</i>	20 min
4.40 – 5.00	Coffee break		20 min

5.00 – 5.45	<p>Keynote speaker 4 (Chair: Aleksander Rebane)</p> <p>Fernando Albericio, University of KwaZulu-Natal</p> <p><i>“The Power of the Solid-Phase Peptide Synthesis Methodology”</i></p>	45 min
5.45 – 6.00	Closing remarks	15 min

**February 8, 2024 (Thursday) - optional**

Time	Activity	Note
9.00 – 10.30	<p>Campus and labs tour OR Tour to Dubai</p> <p>(pre-registration at the registration desk is required)</p>	Optional



**February 4, 2024 (Sunday)**

Time	Activity (all activities in the Lecture Hall)	Time slot
8.30 – 9.00	Registration	30 min
9.00 – 9.15	Welcoming Remarks	
	Student Workshop	
9.15 – 10.15	Shabana Khan, ACS on Campus: Demystifying Scientific Collaborations (including Q&A)	60 min
10.15 – 11.00	Break or hand-on experience for students (TBC)	45 min
11.00 – 12.00	<p>Panel Discussion: Exploring UAE Graduate Programs and Careers: Chemistry &amp; Beyond</p> <p>Panelists:</p> <ul style="list-style-type: none"> <li>Abdulrahman Aljanaahi, <i>Bomb Disposal Technician &amp; Executive Secretary at Dubai Police Scientist Council, PhD Candidate in Chemistry at United Arab Emirates University</i></li> <li>Waqas Ahmad, <i>PhD Candidate in Material Science and Engineering at American University of Sharjah</i></li> <li>Ahamad Irfan, <i>PhD Candidate in Chemistry at Khalifa University, Vice President of the ACS Student Chapter at Khalifa University</i></li> <li>Ibrahim Tahir, <i>PhD Candidate in Chemistry at New York University Abu Dhabi</i></li> <li>Wegood Awad, <i>PhD Candidate in Chemistry at New York University Abu Dhabi</i></li> </ul>	60 min
12.00 – 1.00	Group photo and lunch	
1.00 – 1.15	Opening of the Student Symposium	
	<p>Research Presentations</p> <p>Chair: Hamda Nasser Abdulla Aleissae</p>	15 min
1.15 – 1.30	<p>Sara Alkhatib, Khalifa University of Science and Technology</p> <p><i>"A Hybrid Approach using MoS<sub>2</sub> Nanoflakes and Conducting Polymers as an Artificial Biocatalyst"</i></p>	15 min
1.30 – 1.45	<p>Shahd Habiba, American University of Sharjah</p> <p><i>"Exposure to Airborne Pollutants: A Public Health Risk Assessment in Sharjah"</i></p>	15 min
1.45 – 2.00	<p>Augustine Boakye, University of Energy and Natural Resources</p> <p><i>"Effectiveness of Crescentia cujete Fruit Shell Powder as a Natural Coagulant for Water Turbidity Reduction"</i></p>	15 min
2.00 – 2.15	<p>Abeer Obeidat, Al-Balqa Applied University</p> <p><i>"Synthetic Peptides as Inhibitors for Efflux Pumps of Multidrug-Resistant Bacteria"</i></p>	15 min
2.15 – 2.30	<p>Pelin Demirci, New York University Abu Dhabi</p> <p><i>"Optical and Mechanical Characterization of Sucrose-Based Fibers"</i></p>	15 min
2.30 – 2.45	<p>Oshiya RA, Indian Association for the Cultivation of Science</p> <p><i>"Machine Learning Approach towards Chiral Phosphoric Acid Catalysed Asymmetric Arene Functionalization of Nitrosonaphthalenes"</i></p>	15 min

2.45 – 3.45	Coffee break / POSTER SESSION – Posters (Room –001C)	60 min
	Research Presentations Chair: Fatima Mahroos	
3.45 – 4.00	Rinad Khataby, Qatar University <i>“Synthesis and Characterization of di-nuclear Zinc Biomimetic models for Aeromonas Proteolytic Aminopeptidase Hydrolase Enzymes and Their Inhibition with Benzohydroxamic Acid”</i>	15 min
4.00 – 4.15	Amna Al-Farsi, Sultan Qaboos University <i>“The Role of Choline-Based Ionic Liquids in Enhancing Micellization of Ionic Surfactants in Aqueous Medium – Comparative Study”</i>	15 min
4.15 – 4.30	Saadiyah Liakhat Ali, University of Sharjah <i>“Unravelling the Language of Blood - A Comprehensive Study on Bloodstain Pattern Analysis”</i>	15 min
4.30 – 4.45	Shovan Das, Indian Association for the Cultivation of Science <i>“London Dispersion Interactions Acts as Internal Pressure for Molecular Crystals”</i>	15 min
4.45 – 5.00	Houda Al-Sharji, Sultan Qaboos University <i>“Bright Orange Organic Light-Emitting Diodes of [Eu(hfaa)<sub>4</sub>](DpaH)+”</i>	15 min
5.00 – 5.15	Nazmi Alsaafeen, Khalifa University <i>“Personalized Robust, Natural and Conductive Hydrogel Electrodes for Wearable Electronics”</i>	15 min
5.15 – 5.30	Wegood Awad, New York University Abu Dhabi <i>“Unraveling the Secret of the Corymbia calophylla One Crack at a Time”</i>	15 min
5.30 – 5.45	Closing Remarks	