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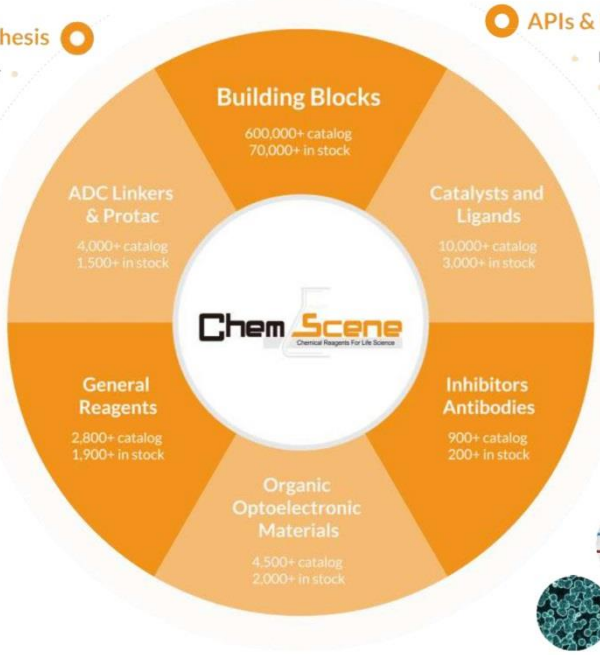

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DAY-1 February 10, 2025 | Monday

Join Zoom Meeting
https://us06web.zoom.us/j/82259703680?pwd=BYRF08KHehzSmzUsVuvGaIxnpWJ5a1.1
Meeting ID: 822 5970 3680
Passcode: 690780

REGISTRATIONS AND BADGE PICK UP **07:30-07:50** @ ABC Foyer

INAUGURATION **07:50-08:00** @ Salon E

Moderator Presentation

MANNAR R. MAURYA **08:00-08:30**
Indian Institute of Technology
Roorkee, India

Polymer-Supported Metal Complexes and their Catalytic Applications in One-Pot-Multicomponent Reactions Producing Biologically Active Molecules

Prof. Mannar Ram Maurya is currently with the Department of Chemistry as a Professor of Inorganic Chemistry of Highest Academic grade. He has served as Chair of Department of Chemistry and Dean of Faculty Affairs of Indian Institute of Technology Roorkee, India. He received his Ph.D. from Kurukshetra University (NIT, Kurukshetra), Kurukshetra, 1987, M.Sc. from Bundelkhand University, Jhansi, 1981 and B.Sc. from Gorakhpur University, 1979. His current research interests are: structural and functional models of vanadium haloperoxidases, immobilization of molybdenum and vanadium complexes on inorganic/ organic polymers and their uses as recyclable and sustainable systems for catalytic oxidation of organic substrates and single pot multi component reactions. His group also try to identify the intermediate(s) to understand the mechanism involved in catalytic reactions. He has published more than 200 research articles and 10 review articles (citations >8,000, h index = 53). He has served as Guest Editor of the special issues of Topics in Catalysis (Volume 61, October 2018, Volume 66, March 2023) and Catalysis Today and many other journals.

PLENARY TALKS

WILLIAM A GODDARD III **08:30 - 09:10**
California Institute of
Technology Pasadena, CA

Atomistic Mechanisms of Electrochemical Reactions on Metal Electrodes

Prof. William Andrew Goddard III is currently Charles and Mary Ferkel Professor of Chemistry, Materials Science, Appl. Physics at California Institute of Technology (Caltech), Pasadena, CA. He is Director of Materials and Process Simulation Center (MSC). He has been a pioneer in developing methods for quantum mechanics (QM), force fields (FF), reactive dynamics (ReaxFF RD), electron dynamics (eFF), molecular dynamics (MD), and Monte Carlo (MC) predictions on chemical, catalytic, and biochemical materials system. He is a member of the International Academy of Quantum Molecular Science and the U.S. National Academy of Sciences. He has an H index = 196.

TOBIN J. MARKS **09:10 - 09:50**
Northwestern University
Evanston, IL

Mechanism-Based Catalytic Process Design for Waste Polymer Recycling in a Circular Economy

Prof. Tobin Marks is Ipatieff Professor of Catalysis and Materials Science and Engineering at Northwestern University. He holds a BS from the University of Maryland and a PhD from MIT. Recognitions: U.S. National Medal of Science, ACS Priestley Medal, Spanish Asturias Prize, MRS Von Hippel Award, Dreyfus Prize in Chemical Sciences, NAS Award in Chemical Sciences, CAS President's International Distinguished Scientist Award, Israel Harvey Prize. Membership: U.S., European, German, Italian, and Indian Academies of Science, U.S. NAE and NAI, American Academy of Arts and Sciences; RSC, MRS, ACS, AIC Fellow. Research interests: unconventional catalysis, soft and hard matter electronic materials, and photovoltaics. He has an H index = 198.

SPEED AND NETWORKING BREAK @ Salon F-H **09:50-10:10**

STEVEN L. SUIB **10:10 - 10:50**
University of Connecticut
Storrs, CT

Selective Oxidations with Porous Metal Oxides *via* Redox Catalysis

Prof. Steven L. Suib is a Board of Trustees Distinguished Professor and Director of the Institute of Materials Science at the University of Connecticut. Postdoctoral Associate from University of Illinois in 1979, Ph.D. from University of Illinois, Urbana-Champaign and B.S. SUNY, Fredonia. His research involves the synthesis by molecular design of environmentally friendly catalysts, surfaces, ceramics, adhesives and other materials. Characterization of the structural, surface, bulk, optical, magnetic, electronic, morphologic and thermal properties of

these materials is also a vital part of this work. He was elected as a Chair for the Applied Chemical Technology Subdivision (ACTS) of the American Chemical Society (ACS) in 2011, He has published over 800 research papers and has registered around 90 patents in his name. He is a fellow of the American Chemical Society and National Academy of Inventors. He is the recipient of University of Connecticut Alumni Excellence in Research Award and Connecticut Medal of Science. He is an editor of Microporous and Mesoporous Materials, editor in chief for Materials, specialty chief editor of Frontiers in Green and Environmental Chemistry and field chief editor of Frontiers in Chemistry. He has an H index = 122.

DEBBIE C. CRANS **10:50 - 11:30**
Colorado State University
Fort Collins, CO

Breaking Dogma in Development of Biologically Active Nonessential Trace Metal Complexes

Prof. Debbie C. Crans is a University Distinguished Professor at Colorado State University, Fort Collins, Colorado. Her research interests include Biological, Bioinorganic, Bioorganic and Bioanalytical Chemistries. She received her PhD from Harvard University and Postdoc from UCLA. She received many awards including the 2019 ACS Award for Distinguished Service and Outstanding Research in the Advancement of Inorganic Chemistry, 2015 Arthur P. Cope Scholar award ACS, 2004 Vanadis Award, 2014 AAAS fellow and 2009 ACS fellow. She is a Field Editor of Frontiers in Chemical Biology, an Associate Editor of Coordination Chemistry Reviews and New Journal of Chemistry. She is Councilor for Division of Inorganic Chemistry, ACS. Alternate Councilor for the Colorado Section of ACS. Chair; Vanadis Award Committee. Editorial Boards: Coordination Chemistry Reviews, Journal of Inorganic Biochemistry, New Journal of Chemistry. 2024 Chair, International Coordination Chemistry Conference.

KEYNOTE TALKS

SIDNEY M HECHT **11:30 - 12:00**
Arizona State University
Tempe, AZ

Alteration of Catalysis in Biological Systems

Prof. Sidney Hecht obtained his Ph.D. (Chemistry; Univ Illinois) and was an NIH Postdoctoral Fellow (Molecular Biology; Univ Wisconsin). He was on the MIT Chemistry faculty (1971-79). He was John W. Mallet Professor of Chemistry and Professor of Biology at UVa (1978-2008). From 1981-87 he held concurrent appointments at SK&F Laboratories (VP Preclinical R&D, then VP Chemical R&D). Since 2008 he has been Director, Center for BioEnergetics, and Professor of Chemistry at ASU. He has been an Alfred P. Sloan Fellow, and a John Simon Guggenheim Fellow. Awards received include the ACS Cope Scholar Award; Virginia's Outstanding Scientist; Research Achievement Award (American Society of Pharmacognosy); ASU Faculty Achievement Award (Defining Edge Research: Innovation); and the AZBio Pioneer Award). He studies the chemistry of the mitochondrial electron transport chain to devise therapeutic strategies for treating mitochondrial diseases, and the elaboration/study of proteins containing non-proteinogenic amino acids. He has published >480 research papers.

AWARDS

WILLIAM A GODDARD III
California Institute of Technology
Pasadena, CA

DEBBIE C. CRANS
Colorado State University
Fort Collins, CO

GROUP PHOTO 12:15-12:30

LUNCH @ Salon F-H 12:30-13:15

HUW M. L. DAVIES **13:15-13:45**
Emory University
Atlanta, GA

Bowl-Shaped Catalysts for Enantioselective C-H Functionalization

Prof. Huw M. L. Davies, PhD, joined the Emory University faculty in 2008 as the Asa Griggs Candler Professor of Organic Chemistry. He is a member of the Discovery and Developmental Therapeutics Research Program at Winship Cancer Institute of Emory University in Atlanta, Georgia. Prior to Emory, he held the positions of UB Distinguished Professor and Larkin Professor of Organic Chemistry at the University at Buffalo, the State University of New York. Dr. Davies received his BSc degree from University College in Cardiff, Wales, and his PhD from the University of East Anglia. He completed his post-doctoral training at Princeton University. He has received numerous accolades for his work, including the Arthur C. Cope Scholar Award and the H. C. Brown Award for Creative Research in Synthetic Methods. A dedicated educator and mentor, he has inspired a generation of chemists through his innovative research and commitment to advancing the field of organic synthesis.

MARVIN W. MAKINEN **13:45-14:15**
The University of Chicago
Chicago, IL

Probing the Preferential Sequestration of a Vanadyl Chelate by Cancer Tissue

Prof. Marvin W. Makinen is a distinguished biochemist and biophysicist renowned for his groundbreaking research on the structure and function of enzymes, particularly metalloenzymes like carbonic anhydrase. With a career spanning decades, Makinen has made significant contributions to understanding enzyme mechanisms using advanced techniques such as X-ray crystallography and electron paramagnetic resonance (EPR) spectroscopy. A dedicated educator and mentor, he has held prestigious academic positions, including at the University of Chicago, and has influenced countless students and researchers. His work bridges fundamental science and practical applications, particularly in drug design and biotechnology. Makinen's commitment to ethical scientific practices and public outreach further underscores his impact on the scientific community and beyond.

SHUGUANG ZHANG **14:15 - 14:45**
Massachusetts Institute of Technology
Cambridge, MA

The Simple QTY Code for Protein Engineering

Prof. Shuguang Zhang, is at the MIT Media Lab, is renowned for his groundbreaking work in peptide nanotechnology and protein engineering. After earning his BS from Sichuan University and PhD from UC Santa Barbara, he discovered self-assembling peptides in 1990, revolutionizing fields like tissue engineering and nanomedicine. His innovative QTY Code (2011) enables water-soluble membrane proteins, advancing drug discovery. A prolific researcher with over 200 publications and an H-index of 97, Zhang has received numerous awards, including the R&D100 Award and Wilhelm Exner Medal. He is a member of prestigious academies, co-founder of biotech companies like 3-D Matrix, and a champion of scientific curiosity through the Molecular Frontiers Foundation. His discoveries continue to transform biotechnology and medicine.

BLAKE A SIMMONS **14:45 - 15:15**
Lawrence Berkeley National Laboratory
Berkeley, CA

Advances in the Catalytic Conversion Lignin into Biofuels and Bioproducts at the Joint BioEnergy Institute

Prof. Blake A. Simmons is a leading bioengineer and Chief Science and Technology Officer at the Joint BioEnergy Institute (JBEI), as well as Vice President of the Biofuels and Biomaterials Division at Lawrence Berkeley National Laboratory. With a Ph.D. in Chemical Engineering from UC Berkeley, Simmons specializes in sustainable biotechnology, focusing on advanced biofuels, biomaterials, and biomanufacturing. His pioneering work includes developing ionic liquids for biomass pretreatment, engineering enzymes for biofuel production, and creating synthetic biology tools for microbial engineering. A prolific researcher with over 200 publications and numerous patents, Simmons has received accolades such as the Presidential Early Career Award for Scientists and Engineers (PECASE) and the ACS Affordable Green Chemistry Award. A champion of interdisciplinary collaboration, he is dedicated to mentoring future scientists and driving innovation in renewable energy and sustainable materials to address global challenges like climate change and resource scarcity. Recently, Dr. Simmons Elected to National Academy of Inventors.

DEBASISH KUILA **15:15 - 15:45**
North Carolina A&T State University
Greensboro, NC

Thermochemical and Electrochemical Conversion of CO/CO_2 into Value-Added Chemicals

Prof. Debasish Kuila, previous Chair of chemistry, is the Research Director of NSF-CREST Bioenergy Center at North Carolina A&T State University. He is also the Director of DoE-BES project for Direct Air Capture of CO2 and the DoE-EERE project for plastics upcycling. He is a faculty of the Applied Sciences & Technology and an adjunct professor of Wake Forest School of Medicine (WFIRM). Before joining NC A&T, he was an associate professor at Louisiana Tech and spent over 10 years at Hoechst Celanese and Great Lakes Chemical Corporations and Purdue University. His research interests span from materials/biomaterials, cell biology, drug toxicity screening to catalysis. He received ChemCon Distinguished Speaker Award at the 2019 International Conference on Energy & Environment: Challenges & Opportunities for Industries, Jaipur, India.

SPEED AND NETWORKING BREAK @ Salon F-H **15:45-16:00**

Chairs :
DINADAYALANE TANDABANY
Clark Atlanta University, Atlanta, GA

CATALYTIC BREAKTHROUGHS | ORAL TALKS

ARTHUR J. COURY **16:00-16:20**
Northeastern University, Boston, MA

Comparing the Properties of Acrylic Hydrogels Photopolymerized by Visible vs. Ultraviolet Initiators

MARY FEDARKO ROBERTS **16:20-16:40**
Boston College, Chestnut Hill, MA

Insights into Enzyme Catalysis using 31P Relaxometry

AIICHIRO NAGAKI **16:40-17:00**
Hokkaido University, Japan

Flash Synthetic Chemistry Guided by Flow Microreactor Research

DINADAYALANE TANDABANY **17:00-17:20**
Clark Atlanta University, Atlanta, GA

Ammonia Oxidation on Non-Noble Bimetallic Sulfide Cluster for Green Hydrogen Production: A Theoretical Study

JOSÉ V. C. VARGAS **17:20-17:40**
Federal University of Parana, Brazil

Optimal Sustainable Power *via* H_2 from Alkaline Aqueous Corrosion of Aluminum (AACA) and Proton-exchange Membrane Fuel Cell (PEMFC) Stacks

MASAKI FUSHIMI **17:40-18:00**
Clariant corporation, Louisville, KY

Computational Exploration of Ziegler-Natta Catalysts for Polymer Depolymerization

SUSUMU HORITA **18:00-18:20**
Japan Advanced Institute of Science and Technology, Japan

Deposition of Low-Temperature Silicon Oxide Films by APCVD and Improvement of It's film Quality by NH_3 Gas to Remove OH Bonds at Lower than 200°C Using Catalytic Reaction

NETWORKING COCKTAIL @ Salon F-H **18:20-19:20**

End of Day One

DAY-2 Tuesday, February 11, 2025 @ Salon E

SYNTHESIS AND MECHANISMS **ORAL TALKS**

Join Zoom Meeting
https://us05web.zoom.us/j/82259703680?pwd=BYRF08KHehzSmzUsVuvGaIxnpWJ5a1.1
Meeting ID: 822 5970 3680
Passcode: 690780

Chairs :
Dr. Stewart P. Lewis, Pyramid Polymers, Zanesville, OH
Prof. Ricardo José Chimentao, Universidad de Concepcion, Chile

ANA M GEER **08:00-08:20**
CSIC-Universidad de Zaragoza, Spain

Unlocking Cobalt Reactivity: From P–F Bond Cleavage to Fluorination

TAKAHIRO DOBA **08:20-08:40**
Kyoto University, Japan

Iron-Catalyzed C–H Activation/C–C Coupling of Thiophenes

JONG WOOK BAE **08:40-09:00**
Sungkyunkwan University, South Korea

Thermally Stable Cu-ZnO Nanoparticles Encapsulated with Zeolite for Selective Conversion of Carbon Dioxide to Dimethyl Ether

RORY WATERMAN **09:00-09:20**
University of Vermont, Burlington, VT

Developments in Photocatalytic Hydrophosphination

TAKAHIKO KOJIMA **09:20-09:40**
University of Tsukuba, Japan

Highly Selective Oxidation of Organic Substrates Using Molecular Fe(II) Complexes as Catalysts in Aqueous Media

KEI OHKUBO **09:40-10:00**
Osaka University, Japan

Photocatalytic Aerobic Oxygenation of Hydrocarbons Using Fluorinated Acridinium Ions as Photoredox Catalysts

BREAK @ Salon F-H **10:00-10:20**

HIROSHI KITAGAWA **10:20-10:40**
Kyoto University, Japan

High-Entropy Alloy and Oxide Nanoparticles Synthesized by Continuous Supercritical Solvothermal/Hydrothermal Flow Process

EUN-BUM CHO **10:40-11:00**
Seoul National University of Science and Technology, South Korea

Synthesis, Morphology and Catalytic Application of Mesoporous Ni-Phyllosilicate Nanostructures

XINHUA LIANG **11:00-11:20**
Washington University in Saint Louis, St. Louis, MO

Converting CO_2 to Valuable Chemicals *via* CO_2 Hydrogenation

PHILIP ARTHUR COLE **11:20-11:40**
Harvard Medical School, Boston, MA

Plasticity in HECT E3 Ubiquitin Ligase Mechanisms

STEWART P. LEWIS **11:40-12:00**
Pyramid Polymers, Zanesville, OH

***In-Situ* Generation of Superacids for Catalytic Cationic Polymerization**

YUTA HORI **12:00-12:20**
University of Tsukuba, Japan

Thioester Hydrolysis Mechanism Catalyzed by Boric Acid and It's Derivative

NETWORKING LUNCH @ Salon F-H **12:20-13:20**

GEORGE ODOHERTY **13:20-13:40**
Northeastern University, Boston, MA

The Use of Asymmetric Catalysis for the *de Novo* Synthesis of Oligosaccharide

HIROYUKI MIYAMURA **13:40-14:00**
National Institute of Advanced Industrial Science & Technology, Japan

Selective Flow Hydrogenation of Quinizarins to Leuco-quinizarins Using Heterogeneous Catalysts and their Direct Derivatizations Under Continuous-flow Processes

JAEHEUNG CHO **14:00-14:20**
UNIST, South Korea

Metal-Catalyzed Hydrocarbon and Nitrile Activation: Insight from Manganese and Cobalt Complexes

PATRICIA PUENTES JARAMILLO **14:20-14:40**
DAVID CONTRERAS
DiseñoLab LTDA, Universidad de Concepcion, Chile

Pilot Scale Photocatalytic System for the Treatment of Household Graywater for Use in Landscaping and Urban Horticulture

HIDEKI MASUDA **14:40-15:00**
Nagoya Institute of Technology, Japan

Catalytic Oxidation of Methanol to Formaldehyde by Fe(III) Complex with N3S3-type Tripodal Ligand

RICARDO JOSÉ CHIMENTAO **15:00-15:20**
Universidad de Concepcion, Chile

Carbon Dioxide Adsorption in CeO_2-based Materials Prepared by Conventional Hydrothermal Process and Microwave-Assisted Hydrothermal Synthesis

SPEED NETWORKING & EVENING BREAK @ Salon F-H **15:20-15:40**

ABRAHAM MARTINEZ **15:40-16:00**
University of California, Berkeley, Berkeley, CA

Dialing in Acid Sites of Mesoporous USY Zeolites *via* Na+ Ion Titration

KEE HAG LEE **16:00-16:20**
Wonkwang University, South Korea

Hydroboration of C70 Fullerene with Borane by DFT-D3 Study

MATTHEW KRZYSTYNIAK **16:20-16:40**
Rutherford Appleton Laboratory, UK

Hydrogen Sublattice in Molybdic Acids – A Thermal to Epithermal Neutron Study

JYI-TSONG LIN **16:40-17:00**
National Sun Yat Sen University, Taiwan

Emerging Simple Costless iCTFET Technology for Å-Era AI and IoT Applications

V.S.R. RAJASEKHAR PULLABHOTLA **17:00-17:20**
University of Zululand, South Africa

Optimized Oxidation of Cresol Isomers Using Ozone: Role of γAl_2O_3 and SiO_2 as Adsorbent Catalysts

JIEUN JUNG **17:20-17:40**
Nagoya University, Japan

Modification of PNNP Ligands to Enhance Reactivity in Photocatalytic CO_2 Reduction

BADER SHAFAQA AL-ANZI **17:40-18:00**
Kuwait University, Kuwait

Low-Resistance Membrane vs. High-Resistance Membrane Performance Utilizing Electrodialysis–Evaporator Hybrid System in Treating Reject Brine from Kuwait Desalination Plants

DAVID CONTRERAS **18:00-18:20**
Universidad de Concepcion, Chile

Reactive Species and Intermediates in Advanced Oxidation Processes: Insights from EPR Spectroscopy

SKYLER MARKHAM **18:20-18:40**
Colorado State University, Fort Collins, CO

A New Catalytic Method for the Synthesis of Biologically Relevant Menaquinone Derivatives

DAE JOON KANG **18:40-19:00**
Sungkyunkwan University, South Korea

Synergistic Integration of Keggin-Type Polyoxometalates with Porous Manganese Oxide for Efficient and Stable Oxygen Evolution Reaction

End of Day Two

DAY-3 Wednesday, February 12, 2025 @ Salon E

Join Zoom Meeting
https://us05web.zoom.us/j/82259703680?pwd=BYRF08KHehzSmzUsVuvGaIxnpWJ5a1.1
Meeting ID: **822 5970 3680**
Passcode: **690780**

Chairs :
Prof. Rafael Omar Torres Mendieta, Technical University of Liberec, Czech Republic
Prof. Ruihua Cheng, Indiana University, Indianapolis, IN

VIRTUAL KEYNOTE TALK

MATTHIAS G. SCHWAB **08:00-08:30**
BASF Process Catalysts, Germany

Catalysts are the Microchips of the Chemicals Industry - Powering the Sustainability Transformation

CATALYSIS CONCEPTS AND APPLICATIONS — ORAL TALKS

GAEL PLANTARD **08:30-08:50**
CNRS, France

"How to Optimize the Use of Solar Resources for Photo-Conversion?"

JIAYAN XU **08:50-09:10**
Princeton University Princeton, NJ

Dynamic Metal-Support Interaction Dictates Cu Nanoparticle Sintering on Al_2O_3 Surfaces

RAFAEL OMAR TORRES MENDIETA **09:10-09:30**
Technical University of Liberec, Czech Republic

Reactive Laser Ablation in Liquids as a Promising Approach for Nanocatalyst Formation

SERGEY NIKITENKO **09:30-09:50**
CNRS, ICSM, Marcoule Centre, France

Photothermal Catalysis with Magnetic Nitinol

NAZIR P. KHERANI **09:50-10:10**
Georgia Institute of Technology, Atlanta, GA

Meta Catalysis: Opportunities with Photothermal and Super Planckian Meta Surfaces

YOSHITAKA FUJIMOTO **10:10-10:30**
Kyushu University, Japan

Defect Engineering, Electronic and Transport Properties of Atomic Layered Materials

SPEED AND NETWORKING BREAK @ Salon F-H **10:30-10:50**

SHIGEYUKI MASAOKA **10:50-11:10**
Osaka University, Japan

Defect Engineering, Electronic and Transport Properties of Atomic Layered Materials

IAN GRAHAM **11:10-11:30**
Georgia Institute of Technology, Atlanta, GA

Oxygen Vacancy Enhanced Oxygen Evolution Reaction Catalysis of $BaNiO_3$

MERIC ARSLAN **11:30-11:50**
North Carolina A&T State University, Greensboro, NC

Cobalt and Iron based Core-Shell Catalysts for Fischer-Tropsch Synthesis in a Tubular Reactor

RUIHUA CHENG **11:50-12:10**
Indiana University, Indianapolis, IN

Potential Applications of Spin Crossover Molecules

JAN GABSKI **12:10-12:30**
University of Cincinnati, Cincinnati, OH

A New Type of Rechargeable Liquid Metal-CO_2 Battery for Energy Storage and CO_2 Reduction to Carbon

KRISHNA KUMAR **12:30-12:50**
Tufts University, Boston Ave, MA

Repair of Peptide Hormones Using Enzymes

NIKHIL KUMAR **12:50-13:10**
Sandia National Laboratories, Livermore, CA

Multi-Scale Computational Screening of Cyclic Amines as Solvent for Improved Lignocellulosic Biomass Processing

MINKYEONG KIM **13:10-13:30**
Korea Railroad Research Institute, South Korea

A Study on Quantifying Passenger Comfort According to Illumination and Color Temperature in Railway Vehicles Using fNIRS

Lunch and Departures

End of Day Three (In-Person)

VIRTUAL SESSION **Wednesday, February 12, 2025 | Virtual**

Join Zoom Meeting
https://us06web.zoom.us/j/82259703680?pwd=BYRF08KHehzSmzUsVuvGaIxnpWJ5a1.1
Meeting ID: 822 5970 3680
Passcode: 690780

PLENARY TALKS

SHOUHENG SUN **17:30-18:10**
Brown University, Providence, RI
Enhancing Nanoparticle Catalysis for Selective CO_2 Reduction

MASAHIRO YOSHIMURA **18:10-18:50**
National Cheng Kung University, Taiwan
Valence State and Valence Stability of Cerium Ion in Various Oxides Based upon Lattice Energy and Lattice Site Potential

Chair:
MAUSUMI MAHAPATRA, Loyola University Chicago, Chicago, IL

MARIA DO CARMO RANGEL **18:50-19:10**
Universidade Federal do Rio Grande do Sul, Brazil
BTX Production from Catalytic Pyrolysis of Sugar Cane Bagasse

DIRLÉIA DOS SANTOS LIMA **19:10-19:30**
Universidade Federal do Rio Grande do Sul, Brazil
Hydrogen Production by Methane Decomposition over M-Ni-Cu-Al (M = Zn, Mg, Fe and Co) Layered Double Hydroxide Catalysts: Influence of the Heating Rate and CH_4-Activation

MAUSUMI MAHAPATRA **19:30-19:50**
Loyola University Chicago, Chicago, IL
The Evolution of Model Rh/Fe_3O_4(001) Catalysts in Hydrogen Environments

MEIYAN GAO **19:50-20:10**
University of California, Berkeley, CA
Structurally Precise Coordination Compounds and Their Applications in the Separation and Conversion of C-Compounds

JAMES L. YOUNG **20:10-20:30**
National Renewable Energy Laboratory, Golden, CO
Nitrogen Reduction Catalyst Testbed with Real-Time 15NH_3 Yield Quantification

ALAN GOLDMAN **20:30-20:50**
Rutgers - The State University of New Jersey, Piscataway, NJ
Catalytic Alkane Dehydrogenation: New Pathways

BREAK **20:50-21:10**

Chair:
POOJA SHANDILYA, Maharishi Markandeshwar University, India

KUNICHI MIYAZAWA **21:10-21:30**
Nano Alloy Technology Inc., Japan
DFT Calculation of the Adsorption Energy of Oxygen Atoms on Platinum Nanowires Formed on One-Dimensionally Polymerized Fullerene Molecules

KEI MURAKAMI **21:30-21:50**
Kwansei Gakuin University, Japan
Quaternary Ammonium Salts Transformation Using Photoredox Catalysis

KOUKI OKA **21:50-22:10**
Tohoku University, Japan
Development of New Organic Catalytic Materials?

RUDY COQUET **22:10-22:30**
Preferred Computational Chemistry, Inc., Japan
Accelerating Ammonia Synthesis Catalyst Discovery with Machine Learning: Insights from Matlantis

MITSUHIRO YOSHIMATSU **22:30-22:50**
Gifu University, Japan
Cationic Indium-Catalyzed Dehydrative Propargylation of Aromatics and Heteroaromatics

SOURAV GHOSHAL **22:50-23:10**
Kalinga Institute of Industrial Technology (KIIT), India
Rational Design of Defective Graphene-Supported Ni_4 Single-Cluster Catalysts for NO Oxidation and Reduction

POOJA SHANDILYA **23:10-23:30**
Maharishi Markandeshwar University, India
Dual S-scheme-based $CuWO_4$/NiFe/WO_3 Heterojunction for Photodegradation and Photoreduction Applications

DINNER TIME **23:30-00:30**

Chair:
THOMAS BRUECK, Technical University of Munich, Germany

MIN JU KIM **00:30-00:50**
Dankook University, SouthKorea
Functional Polymeric Films via iCVD Process for Advanced Semiconductor BEOL/PKG Technology

LUCA VATTUONE **00:50-01:10**
University of Genova, Italy
Hydrogenation of Graphene on Ni(111) by H_2 under Near Ambient Pressure Conditions

CHIA-HUNG CHEN **01:10-01:30**
City University of Hong Kong, Hong Kong
Fluidic Multi-Compartmental Protocells for Logic Catalysis

THOMAS BRUECK **01:30-01:50**
Technical University of Munich, Germany
Towards a Circular Bioeconomy- Generation of Microbial Oil and Oleochemicals *via* Biocatalysis.

BEATA LESIAK-ORŁOWSKA **01:50-02:10**
Institute of Physical Chemistry Polish Academy of Sciences, Poland
Surface Chemical and Electronic Properties of Functionalized Fe_3O_4 Nanoparticles Influencing the Cancer Cells Oxidation

JULIEN DOULCET **02:10-02:30**
Lancaster University, UK
A Sustainable Approach to the a-Allylation of Ketones

MIROSLAVA BERESOVA **02:30-02:50**
Slovak University of Technology in Bratislava, Slovak Republic
Heterogeneous Transesterification of Non-Food Sources to Produce Biodiesel

RANDOLF D. KOHN **02:50-03:10**
University of Bath, UK
Mechanistic Studies on Catalytic Selective Olefin Trimerization

End of Virtual Session

See you at **CRE-2026**

February 23-25, 2026, San Diego, CA