

TECHNICAL PROGRAM SUMMARY

01. Analytical	A N Y L					
Convention Center	W	T	F	S	S	M
On-site & In vivo Instrumentation & Applications (36)					D	
Innovation in Chemical Sensing & Separation Systems toward Advanced Chemical Analysis (39)		D				
Recent Advances in Bioanalysis: Ultrasmall Volumes, Global Metabolite Profiling & Single Cells (56)			P	D	D	
Optical Waveguide Techniques for the Analyses of Materials & Interfaces (74)					D	
New Frontiers of Plasma Spectrochemistry (84)			D	D		
New Frontiers in Separation Science (113)	D					
Analytical Applications & New Technical Developments of Soft X-Ray Spectroscopy (145)				DE		
Ionic Liquids for Analytical Chemistry & Analytical Chemistry for Ionic Liquids (166)					DE	A
Fluorescent Sensors by Design (181)					D	
Comprehensive Multidimensional Separations (191)		P	A			
Electroanalytical Sciences (193)		P	A			
Microfluidic & Nanofluidic Devices for Chemical & Biochemical Experimentation (198)	P	D	A			
Analytical & Environmental Chemistry in Human Health (206)	D	A				
Advances in Flow-Based Analytical Techniques (207)					D	A
Rapid, Multicomponent Environmental Analysis (253)	D	A				
(Bio-)Chemical/Electrochemical Sensors & Sensing Materials (255)			P	D		
Novel Applications of Magnetic Fields in Analytical Chemistry (260)			P	D		
Non- & Minimally Invasive Diagnostics of Biological Systems using Vibrational Spectroscopy (276)	D	A				
Enabling Mass Spectrometric Techniques for Proteomics (277)		D	D			

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E = EVE DE = AM/PM/EVE PE = PM/EVE

02. Inorganic	I N O R					
Hilton Hawaiian Village	W	T	F	S	S	M
Molecular Photonics (9)	D	D	A			
Controlling the Structure & Properties of Solids (20)		E	DE	A		
Olefin Oligomerization & Polymerization Catalyzed by Early Transition Metals (22)			D	D		
Functional Molecule-Based Magnets (25)			P	D	D	
Metal Ion Complex Interactions with Nucleic Acids (30)	D	A				
Organoboron, Organosilicon & Organophosphorus as Optoelectronic & Energy-Related Materials (35)			DE	D	A	
Actinides & the Environment: A Multidisciplinary Look at What We Know & What We Need To Know (38)	D	AE				
Organo-f-Element Compounds: From Novel Chemical Transformations to Applications in Catalysis & Materials Science (46)			D	D		
Schiff Base Macrocycles & Materials (60)		P	D			
Frontiers in Organometallic Chemistry (68)	D	D				
Construction of Photofunctional Supramolecular Metal Complexes (94)				P	A	
Chemistry of Sulfur-Bridged Multimetallic Complexes (96)		P	D	P		
Syntheses & Applications of Metal-Organic Frameworks (97)	D	D				
Early Main Group Chemistry (100)	D	A				
Dioxygen Activation Chemistry & Catalytic Oxidation Reactions (108)				D	D	A
Structural & Functional Aspects of Coordination Polymers (133)					D	A
Discrete Coordination Systems with Switchable Structures & Properties (143)	D	D				
Advances in Metal-Mediated Bond Activation: From Unusual Bonding Motifs to Applications in Catalysis (146)		P	D	A		
Preparation & Reactions of Early Transition Metal & Lanthanide Compounds (150)	D	D				
Functional Molecules of the Heavier Main Group & Transition-Metal Elements (156)	D	A				
Self-Assembly & Coordination Chemistry (164)					D	A

02. Inorganic (continued)	I N O R					
Hilton Hawaiian Village	W	T	F	S	S	M
Molecular Design in Bioinorganic Chemistry (173)			DE	D		
Electron Transfer & Electrochemistry of Transition-Metal-Containing Inorganic & Organometallic Materials (187)	D		P			
Coordination Chemistry toward Artificial Photosynthesis & Energy Conversion Processes (194)					D	A
Redox Redux: The Renaissance of Non-Innocent Ligand Complexes (217)		D	D			
Advances in Nuclear Chemistry of Transactinide Elements (218)				D	A	
Chemistry & Materials Science at High Pressures (239)				D	D	
Carbon-Fluorine Bond Activation: Crossroads for Inorganic, Organic & Environmental Chemistry (248)	D	D				
Fundamental & Applied Inorganic Fluorine Chemistry & Their Impacts on Energy Conservation & the Environment (249)		P	D			
New Frontiers in Polyoxometalate Chemistry (251)				D	D	
Nanoscale Characterization of Functional Materials by Nuclear Probes (275)				DE	A	

03. Macromolecular	M A C R					
Convention Center	W	T	F	S	S	M
Polymeric Materials from Renewable Resources (6)	D	D				
NMR Spectroscopy of Polymers (12)				DE	D	A
Chemistry & Functional Properties of Soft Interfaces (42)	D	DE				
Advanced Polymeric Membranes for Environmental, Biomedical & Bioengineering Application (51)		P	D	A		
Functional Block Copolymer Assemblies (57)			D	DE	A	
Polymer Materials Performance, Degradation & Optimization (64)	D	DE				
Hybrid Conjugated Polymer Materials (82)	D	A				
Biodegradable & Biomass Plastics (95)			D	D		
New Age of Advanced Materials: Supramolecular Architectures & Smart Materials (98)	D	D				

03. Macromolecular (continued)	M A C R					
Convention Center	W	T	F	S	S	M
Molecular-Based Ordered Materials Formed Through Self-Organization (102)				P	DE	A
Biomimetic Engineering of Hierarchically Structured Polymer Materials (126)				P	D	
Polymer Nano-Hybrids at Bio-Interfaces (127)			D	A		
Synthesis, Structure & Physical Properties of Advanced Polymer Gels (136)			D	D		
Azobenzene Polymers for Photo-Reversible Structures & Surfaces (144)	D					
Nano Structure & Function of Organic-Inorganic Hybrid Polymers (152)				P	D	A
Controlled/Living Radical Polymerization in Dispersed Systems (160)				D		
Separation & Characterization of Synthetic and/or Biological Macromolecules: Principles, Practices & Applications (179)					D	A
Polyolefins Chemistry & Beyond: From Bench to Commercial Scale (211)	D	D				
Radical Polymerization Kinetics & Mechanisms (219)					D	
Amphiphilic Polymers: Fundamentals & Applications (231)			D	A		
Controlled/Living Radical Polymerization: Mechanisms, Catalysts, Reaction Engineering, Materials & Applications (236)			D			
Frontiers of Precisely Controlled Polymer Synthesis: Fine Control of Polymerization Reaction & Impact on Advanced Material Designs (257)				PE	D	A

04. Organic	O R G N					
Hilton Hawaiian Village	W	T	F	S	S	M
Reactive Intermediates & Unusual Molecules: A Celebration of Bob Moss's 70 years (1)			DE	A		
Cooperative Catalysis (14)			D	D		
Anion Coordination Chemistry (15)				P	D	A
C-H Functionalization (18)				P	D	A
Interface between Organic Synthesis & Chromatography (19)	P	D				

PROGRAM SUMMARY

04. Organic (continued)	O R G N					
Hilton Hawaiian Village	W	T	F	S	S	M
Designed Pi-Electronic Systems: Synthesis, Properties, Theory & Function (29)	D	DE				
Diversity Oriented Synthesis (32)					DE	
Chemistry of Novel Nanocarbons: Fullerenes, Carbon Nanotubes & Related Materials (45)	D	DE				
New Directions of Supramolecular Chemistry toward Nanomaterial Science, Biomedical Science & Supramolecular Catalysts (47)	D	D				
Asymmetric Organocatalysis (62)			D	D		
Novel Synthetic Methodology & Its Application to Natural Product Synthesis (63)	D	DEAE				
Marine Natural Products: Isolation, Biology, Ecology & Synthesis (80)			D	D		
Science & Strategy of Process Chemistry: From Molecules to Pharmaceutical Drugs (85)	D	DE				
Mechanistic Organic Photochemistry (89)			DE	D		
New Advances in Metal-Catalyzed Alkylation & Fluoroalkylation (115)			D	A		
Frontiers in Biocatalysis Applications to Organic Synthesis (124)				P	D	A
Supramolecular Photochemistry (125)	D	D				
New Dimensions of Green Sustainable Chemistry: Novel Reactions & Catalysts (132)	D	D				
Total Synthesis of Natural Products & Related Compounds (134)				P	D	A
Achieving Efficiency in Organic Reactions via Greener Processes & Practices (139)			D	A		
Design & Synthesis of Biologically Active Compounds for Elucidating Mode-of-Action (148)				P	D	
Organic Solid-State Chemistry: Structure, Synthesis & Reactivity (155)	D	A	A			
Molecular Probes & Fluorophores for Cellular Imaging (157)					D	A
Boronic Acids: Synthetic & Biological Applications (199)				DE	A	
Molecular Complex Systems: Reversible Aggregation/Disaggregation of Organic Molecules (216)					D	
Practical Applications of Basic Research on Molecular Recognition (222)			P	D		

04. Organic (continued)	O R G N					
Hilton Hawaiian Village	W	T	F	S	S	M
Carbanions: Modern Perspectives in Structure, Reactivity & Synthesis (229)	D	D				
Recent Advances in Natural Products as Anticancer Agents (279)			DE	A		
Supramolecular Catalysis (280)		P	A			
Metal Catalysis for Asymmetric Synthesis (282)	D	DE				
Transition-Metal Catalysis: Mechanism & Practice (283)			P	D	A	

05. Physical, Theoretical & Computational	P H Y S					
Sheraton Waikiki	W	T	F	S	S	M
Computational Quantum Chemistry: Theory & Interactions with Experiment (10)			PE	DE	DE	
Gas Phase Studies of Metal Ligand Interactions: Relevance in Organic Chemistry & Biochemistry (17)			D			
Recent Advances in Studies of Molecular Processes at Liquid Interfaces (21)	A	DE	DE	AE		
Ultrafast Intense Laser Chemistry (24)	D	DE				
Kuiper Belt Objects: Laboratory Studies, Models, Theory & Observations (31)				DE	AE	
Advances in Quantum Monte Carlo (37)	D	DE	E			
Interfacial Electrochemistry: New Systems, Experimental Methods & Theoretical Approaches (40)	D	DE				
Theory of Excited States Structures & Dynamics: Application to Organic Materials & Biosystems (66)	D	DE				
Frontiers of Surface-Enhanced Raman Scattering: Single-Nanoparticles & Single Cells (72)				DE	DE	
Dynamics & Mechanisms of Photochemical Reactions of Biological Proteins (75)				P	D	
Challenges & Solutions to Accurate Calculations on Large Molecular Systems (81)				D	DE	A
Spectroscopic Probes of Intramolecular & Intermolecular Interactions in Molecules & Molecular Clusters (87)	D	DE				

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05. Physical, Theoretical & Computational (continued)

P H Y S

Sheraton Waikiki	W	T	F	S	S	M
Systems Chemistry: Toward the Holistic Understanding of Complex Molecular Systems (103)			PE			
Anharmonic Vibrations of Molecules & Clusters: Experiment & Theory (116)			D	A		
New Experimental & Computational Probes of Water in Biological Systems (130)			P	D	A	
Molecular Theory for Real Systems & Chemical Reactions (138)	D	DE	D			
Re-encounter of Computational Chemistry & Chemometrics (140)				P	A	
Quantum Coherence & its Control in Condensed Phases (161)	D	DE	A			
Cold Molecules & Quantum Computation/Information Processes (163)	P	DE				
Nanostructure-Enhanced Photochemical Reactions (171)	D	D				
DNA Photonics (204)			D	D		
Frontiers of State-to-State Dynamics (212)				DE	DE	A
Molecular Dynamics in Complex Environments: Theory & Experiments (220)			D	D		
Solid-State NMR Methods & Applications in Inorganic Materials (228)				D	D	
Interfacial Phenomena for Bubbles, Droplets, Films & Soft Matter (252)				D	D	
Advanced Linear & Nonlinear Vibrational Spectroscopy (254)	D	D				
Orbital-Free Density Functional Theory & Its Applications to Large-Scale Materials Simulations (258)				PE	DE	A
Plasmonics & Nanophotonics for Chemical Sensing, Imaging & Spectroscopy (259)	D	D				
Frontiers of Colloid & Interface Chemistry (265)			D	D		
Frontiers of Biomolecular Dynamics (267)					D	A

06. Agrochemistry

A G R O

Royal Hawaiian	W	T	F	S	S	M
Cellulose-Based Nanomaterials: Fundamentals & Applications (50)	D	A				
Flavonoids, Synthesis toward Functions (88)		P	A			
Metabolomics for Fundamental & Applied Plant Sciences (111)	D					
Application of Liquid & Gas Chromatography Mass Spectrometry to Agrochemical Challenges (118)		D				
Value-Added Food Products from Fruits & Vegetables (162)			P	D	A	
Tonic Liquids: Novel Processing Platforms of Cellulose & Biomass (210)	D	D	A			
Fungi & Mushrooms: Ecology, Chemistry & Agricultural Relevance (214)			P	A		
Rodenticide-Based Opportunities for Protection of Agriculture, Ecosystems & Public Health (227)			D			
International Food Safety Issues & Opportunities (230)					D	
Genomics Approach to the Analysis of Fungal Secondary Metabolites & Diversity (243)						A

07. Biological Chemistry

B I O L

Convention Center	W	T	F	S	S	M
Chemical Biology of Botulinum Neurotoxin (5)	D					
Frontiers in Peptide Chemistry: Synthesis & Applications (41)				D	D	
Biomolecular Structure & Dynamics? Recent Advances in NMR (43)				D	D	A
Molecular Control of Stem Cell Fate (55)	P					
Advances in Solid-State NMR of Biological Molecules (58)	D	D	A			
Pectin: Affect on Structural & Functional Properties by Enzyme or Chemical Modification (76)		D				
Polypharmacology for Drug Discovery (90)			P	D		
Studying the Chemistry Inside Living Cells with Infrared Spectromicroscopy (93)			A			
Biomarkers: PET/SPECT Imaging (105)	D	D				
Biosynthesis of Natural Products (106)	D	DE	A			

PROGRAM SUMMARY

07. Biological Chemistry (continued)

B I O L

Convention Center	W	T	F	S	S	M
Chemical Approaches to Astrobiology (117)			D			
Gas-Sensor Proteins/Enzymes: Molecular Mechanisms of Gas Sensing & Intramolecular Signal Transduction (119)		D				
Bioorganic Reaction Mechanisms (129)			D	D		
Protein, Peptide & Peptidomimetics Design (149)			DE	DE		
Carbohydrate Recognition in Health & Disease (200)	D	D				
New Frontiers of Functional Nucleic Acids: Chemistry, Biology & Applications (208)				DE	D	
Protein Alteration by Mutagenesis & Chemical Modification: Applications in Biochemistry, Drug Discovery, Diagnostics & Nutrition (213)	D	D				
Recent Advances in Research on Leukotrienes & Prostaglandins in Inflammatory & Respiratory Diseases (235)			D			
Frontiers in Ubiquitin Research: Structures, Mechanisms, Biology & Drug Development (244)				P	D	A
Frontiers of Metalloproteins in Biology (256)	D	D				
Molecular Recognition of Nucleic Acids: Biological Applications (278)			D	A		

08. Environmental Chemistry

E N V R

Convention Center	W	T	F	S	S	M
Interfacial & Disinfection Chemistry: Fate, Transport & Adsorption of Pathogens, Nanoparticles, Biocolloids & Trace Organics in Aquatic Systems (2)	D	DE	A			
Environmental Forensics (23)				D		
Chemistry of Ultraviolet Treatment for Water (26)	D					
Sources, Transport, Fate & Behavior of Global Contaminants (48)					D	A
Free Radical Chemistry in the Environment (73)		DE	A			
Environment-Friendly Syntheses Using Ionic Liquids (83)			P	D		
Recycling of Polymeric Waste Materials: Challenges & Perspectives (86)				DE		

08. Environmental Chemistry (continued)

E N V R

Convention Center	W	T	F	S	S	M
Green Electrochemistry (128)		PE	D			
Chemistry of Post-Combustion Carbon Dioxide Capture (131)		DE	AE			
Environmental Chemistry of Aerosols (237)				PE	D	A
Sonochemistry & Sonoprocessing (247)	D	D				
Innovative Green Chemistry with Microwave Energy (250)	D					
Challenges of Heterogeneous Catalysts for Environmentally Benign Materials Conversions (262)			P	D	A	

09. Materials & Nanotechnology

M A T R

Convention Center	W	T	F	S	S	M
Nanoparticles & Nanoparticle-Based Materials: Synthesis, Characterization & Applications (13)	D	DE	DE			
Measurement Sciences for Life Cycle Performance of Nanomaterials & Nanocomposites (65)			D			
Titanium Dioxide: Synthesis & Applications for Energy, Environment & Devices (77)					D	A
Ionic Liquids in a Sustainable World (92)	D	D				
Synchrotron Radiation: Emerging Techniques & Applications (104)					D	A
Nitroxide Radicals: Synthesis & Advanced Bio- & Nanomaterials Applications (120)			P	D	A	
Green Biomacromolecular Materials & Biocomposites (121)	D					
Nanofluidics & Chemical Manipulations in Restricted Environments (123)				D	A	
Carbon Nanotubes & Nano-Carbon Materials: Preparation, Characterization & Applications (135)		E	E	DE	DE	A
Emerging Perovskite & Spinel Compounds for Materials Science & Applications (141)		D				
Fundamentals & Applications of Nanomaterials for Electronics & Photonics (142)	D	DE	AE			
New Materials & Concepts for Next-Generation Membranes (165)	D	A				
Supramolecular Nanoassemblies & Extended Frameworks (168)			P	D	A	

09. Materials & Nanotechnology (continued)

M A T R

Convention Center	W	T	F	S	S	M
Design of Zeolite Catalysts for Clean Synthesis of Chemicals (178)		P	D			
Computational Chemistry in Materials & Nanotechnology (182)	D	D				
Standard Reference Materials & Methods for Nanotechnology (184)					D	A
Liquid Crystals in Materials Chemistry (202)		PE	D	A		
Polymer/Organic Solar Cells (224)			DE	A		
Organic Electronic Materials: From Small Molecules to Conducting Polymers (225)				P	D	A
Biological & Bio-Inspired Materials Synthesis & Assembly (226)	D	D	A			
High-Performance Solution-Processed Materials for Electronic/Optoelectronic Device Applications (233)	D	D				
Self- & Directed Assembly of Small Molecules, Macromolecules & Colloids (242)					D	A
Inorganic Nanowires: Syntheses & Growth Mechanisms (264)			D	A		
Redox Processes on Nanoparticles, Nanomaterials & Nanostructured Systems in the Environment (272)					D	A

10. Alternate Energy Technology

A L T E

Convention Center	W	T	F	S	S	M
Advances in Chemistry & Materials for Hydrogen Storage (69)	D	DE	A			
Nanoporous Materials for Renewable Energy & Chemicals (122)			DE	D		
Clean Fuels from Coal, Natural Gas & Biomass (172)				DE	DE	A
Thermochemical & Metal-Catalyzed Transformations of Biomass to Petrochemical Feedstocks, Polymer Precursors & Fuels. (176)	D	AE				
Chemistry, Structure & Properties of Fuel-Cell Membranes (180)					D	A
Nanocatalysis for Fuels & Chemicals (205)					P	A
Bioconversion of Lignocellulose to Fuel Ethanol, Chemicals & Materials (221)			D	A		
Light-Driven Generation of Hydrogen from Water (238)	D	D	P			
Petroleomics: A Roadmap for Better Extraction & Processing of Petroleum (266)				P	A	

11. Chemistry Outreach to the Community

C O M M

Hilton Hawaiian Village	W	T	F	S	S	M
Green Chemistry & Micro/Small-Scale Chemistry in the Curriculum (28)	D	A				
The Two Sides of Research & Development (99)	A					
Best Practices for Teaching Chemistry at Every Level (154)		D				
Women at the Forefront of the Time: Challenges toward Next Decades (185)			D	A		
Chemical Security & Safety in the University & the Laboratory (203)					A	
Pharmaceutical & Chemical Patent Protection & Enforcement Around the Pacific Basin (245)			E	D		
Visualization in Chemical Education (246)					D	
Cultural Influences on Professional Ethics (273)		P	A			

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12. Health & Technology	H E A L					
Convention Center	W	T	F	S	S	M
Advances in the Chemistry of Targeted Radionuclide Therapy (3)			D			
Biological Interactions of Engineered Nanoparticles: Novel Functions & Nanosafety Issues (11)				DE	D	
Photodynamic Therapy & Photodetection (71)				E	D	A
Understanding the Chemistry of Phytochemical Antioxidants & their Role in Human Health & Wellness (110)	D	D				
Chemistry, Safety, Quality & Regulatory Aspects of Functional Food Ingredients, Nutraceuticals & Natural Health Products (114)			D	A		
Nucleic Acid-Based Therapeutics (153)	D	D				
Tuberculosis Drug Development in the Pacific Rim (175)			A			
G-Quadruplexes & i-Motifs: Structures, Biological Roles & Therapeutic & Technological Applications (192)	D	D				
New Aspects of Chemical Glycobiology toward Development of New Diagnostics & Therapeutics (223)			P	D		
Advances in Nanomedicine 2010 (271)	D	D	A			
Assembling New Biomedical Materials for Tissue Regeneration (284)			P	A		

13. Security	S E C R					
Convention Center	W	T	F	S	S	M
LIBS Detection of CBRNE Threats (44)			P	A		
Targeting Chemical & Biological Warfare Agents (137)	D					
Smart Materials & Devices for CBRNE Detection (167)	D					
Sampling & Analysis of Weapons of Mass Destruction Threats for Antiterrorism Purposes (201)			D			
Spectroscopic, Radioanalytical & Nuclear Methods for Security Applications (240)		D				
Laser-Based Detection of CBE Threats (281)				P	D	

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