



**Athens Conference on Advances in Chemistry**  
**November 6 – November 8, 2024**



HELLENIC REPUBLIC  
National and Kapodistrian  
University of Athens  
EST. 1837  
Department of Chemistry

**ACAC 2024**

**Program**

**Day 1: Wednesday November 6<sup>th</sup>**

8:30 – 9.00	<b>Registration</b>
9:00 – 10.00	<b>Welcome address - Opening Remarks</b>
<b>Plenary Session 1: ANALYTICAL CHEMISTRY</b> Chairs: A. Oikonomou, E. Gikas	
10:00 – 10:30 PL-1	<b>Michael Graetzel, Director of the Laboratory of Photonics and Interfaces, School of Chemistry, Ecole Polytechnique Fédérale de Lausanne, (EPFL), Switzerland</b> "Molecular Photovoltaics and the Stunning Rise of Perovskite Solar Cells"
10:30 – 10:50 IL-1	<b>Nikolaos Thomaidis, Vice-President of NKUA Administration Council, Department of Chemistry, University of Athens, Greece</b> "Alleviating the need of standards and Leveraging advances in High Resolution Mass Spectrometry for integrated, holistic environmental monitoring of emerging contaminants"
10:50 – 11:10 IL-2	<b>Spiros A. Pergantis, Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, Greece</b> "A Combination of Atomic and Molecular Mass Spectrometric Techniques for the Determination of Arsenolipid Compounds in Food of Marine Origin"
<b>11:10 – 12:00</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS P#1 – P#25</b>	
<b>Plenary Session 2: ENVIRONMENTAL CHEMISTRY</b> Chairs: E. Bakeas, S. Karavoltos	
12:00 – 12:30 PL-2	<b>Dario Omanović, Laboratory for Physical Chemistry of Traces, Center for Marine and Environmental Research, Ruđer Bošković Institute, Croatia</b> "Multimethodological study of trace metal speciation in marine waters"
12:30 – 12:50 IL-3	<b>Nikolaos Mihalopoulos, Institute for Environmental Research and Sustainable Development, National Observatory of Athens</b> "Climate change in the Eastern Mediterranean: Drivers and impacts"
12:50 – 13:10 IL-4	<b>Simos Malamis, Department of Water Resources and Environmental Engineering, School of Civil Engineering, National Technical University of Athens</b> "Adopting Nature-based solutions to build water resilience"



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<b>13:10 – 14:30</b> <b>LUNCH BREAK</b>	
<b>ORAL PRESENTATIONS, 14:30-15:30</b> <b>Session 1: (n=6, 10min each)</b> <b>Chairs: C. Kokkinos, E. Bakeas</b>	
<b>Oral presentations: Analytical Chemistry</b>	
<b>14:30 – 14:40</b> <b>OP-1</b>	<b>Anastasios Oikonomou, Department of Chemistry, University of Athens, Greece</b> "Applications of paper-based devices in (bio)analytical chemistry"
<b>14:40 – 14:50</b> <b>OP-2</b>	<b>Evangelos Gikas, Department of Chemistry, University of Athens, Greece</b> "Are MS/MS-Based Molecular Networks another solution for omics? An application to a food authenticity challenge"
<b>14:50 – 15:00</b> <b>OP-3</b>	<b>Eleni Koukouviti, Department of Chemistry, University of Athens, Greece</b> "Lab-made conductive filament for the 3D printing of ready-to-use multiplexed electrochemical sensors"
<b>Oral presentations: Environmental Chemistry</b>	
<b>15:00 – 15:10</b> <b>OP-4</b>	<b>Nikolaos Katsikatsos, Department of Chemistry, University of Athens, Greece</b> "Autonomous Vehicles as an innovative monitoring strategy in environmental studies"
<b>15:10 – 15:20</b> <b>OP-5</b>	<b>Sevasti Panagiota Kotsaki, Department of Chemistry, University of Athens, Greece</b> "SOA tracers in a background site in the Eastern Mediterranean: exploring formation pathways"
<b>15:30 – 15:30</b> <b>OP-6</b>	<b>Georgios Katsouras, EYDAP SA</b> "Innovative monitoring of emerging micropollutants in Psyttalia WWTP and the Saronikos Gulf Ecosystem"
<b>15:30 – 16:30</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS P#1- P#25</b>	
<b>Plenary Session 3: BIOCHEMISTRY</b> <b>Chairs: E. Stratikos, E. Emmanouilidou</b>	
<b>16:30 – 17:00</b> <b>PL-3</b>	<b>Michal Bassani-Sternberg, Ludwig Institute for Cancer Research, Switzerland</b> "Antigen discovery for development of personalized cancer immunotherapy"
<b>17:00 – 17:20</b> <b>IL-5</b>	<b>Niki Chondrogianni, Institute of Chemical Biology (ICB), National Hellenic Research Foundation (NHRF), Greece</b> "The proteasome as a key player in the progression of aging and age-dependent diseases"
<b>17:20 – 17:40</b> <b>IL-6</b>	<b>George Leondaritis, Department of Pharmacology, Faculty of Medicine, School of Health Sciences, University of Ioannina, Greece</b>



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"Lipid Signalling in Health and Disease"	
17:40 – 18:00 POSTER VIEWING, EXHIBITION AND NETWORKING	
ORAL PRESENTATIONS, 18:00-19:00 Session 2: (n=6, 10min each) Chairs: E. Emmanouilidou, N. Tsoureas	
Oral presentations: Biochemistry	
18:00 – 18:10 OP-7	<b>Efstratios Stratikos, Department of Chemistry, University of Athens, Greece</b> "A conformation and substrate-selective small molecule inhibitor of Insulin Regulated Aminopeptidase provides insight into the intricacies of the enzyme's catalytic cycle"
18:10 – 18:20 OP-8	<b>Evangelia Emmanouilidou, Department of Chemistry, University of Athens, Greece</b> "Astrocyte calcium signaling can protect against neuroinflammation induced by $\alpha$ -synuclein oligomers"
18:20 – 18:30 OP-9	<b>Galatea Georgaki, Department of Chemistry, University of Athens, Greece</b> "Polymorphic positions 349 and 725 of the autoimmunity protective allotype 10 of ER aminopeptidase 1 are key in determining its unique enzymatic properties"
18:30 – 18:40 OP-10	<b>Martha Nikopaschou, Department of Chemistry, University of Athens, Greece</b> "ERAP1 as a regulator of the immunopeptidome, proteome and cellular homeostasis of cancer cells"
Oral presentations: Inorganic Chemistry	
18:40 – 18:50 OP-11	<b>Irene Ligielli, Department of Chemistry, University of Athens, Greece</b> "Trigonal Planar Chromium (II) N-Heterocyclic Carbene Complexes as Potential Mononuclear Single Molecule Magnets"
18:50 – 19:00 OP-12	<b>Ioannis Vagiakos, Department of Chemistry, University of Athens, Greece</b> "Taming arenes: A comparative and systematic study"
19:00-20:00 FunShield4Med Session on Food Safety Mycotoxins & Climate change, EU funded project, (Grant agreement ID: 101079173)	
20:30 – 22:00 Faculty Dinner	

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Day 2: Thursday November 7<sup>th</sup>

9:15 – 10:00	<b>Sotirios Kiokias, PhD, European Research Executive Agency, Belgium</b> "EU research funding opportunities (Horizon Europe)/Marie-Sklodowska Curie Program (MSCA) with focus on Staff Exchanges Action"
<b>Plenary Session 4: INORGANIC CHEMISTRY</b> Chairs: C. Mitsopoulou, P. Kyritsis	
10:00 – 10:30 PL-4	<b>Andreas Steffen, Department of Chemistry and Chemical Biology, Technical University of Dortmund, Germany</b> "Our journey towards molecular single-photon sources – Fast and bright... but still Dark "
10:30 – 10:50 IL-7	<b>Dominik Halter, Inorganic and Metal-Organic Chemistry, TUM (Technical University of Munich), Germany</b> "Transition Metal Catalyzed Electro-Organic Synthesis with Water & Ex Situ Electrosynthesis for Unique Selectivity"
10:50 – 11:10 IL-8	<b>Carole Duboc, Department of Molecular Chemistry, University of Grenoble, France</b> "A bio-inspired approach for electrocatalytic H <sub>2</sub> production"
<b>11:10 – 12:00</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS P#26 – P#63</b>	
<b>Plenary Session 6: FOOD CHEMISTRY</b> Chairs: C. Proestos, V. Valdramidis	
12:00 – 12:30 PL-5	<b>Jianbo Xiao, Adjunct Professor at Jinan University (China), Department of Food Science and Technology, University of Vigo, Spain</b> "Formation of nitrogenous flavonoid derivatives by reacting with amino acids"
12:30 – 12:50 IL-9	<b>Dejan Stojković, Department of Plant Physiology, University of Belgrade, Serbia</b> "Mushrooms as natural resources of functional food and biologically active compounds"
12:50 – 13:10 IL-10	<b>Kostas Biliaderis, Department of Food Science and Technology, Agricultural School of the Aristotle University of Thessaloniki, Greece</b> "Cereal grain polysaccharides as functional food ingredients: structure-property relations"
<b>13:10 – 14:30</b> <b>LUNCH BREAK</b>	



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<b>ORAL PRESENTATIONS, 14:30-15:30</b> Session 3: (n=6, 10min each) Chairs: E. Efthimiadou, K. Methenitis	
<b>Oral presentations: Inorganic Chemistry</b>	
<b>14:30 – 14:40</b> <b>OP-13</b>	<b>Patrina Paraskevopoulou, Department of Chemistry, University of Athens, Greece</b> "Polyurea-crosslinked biopolymer aerogels - novel nanostructured materials for diverse applications"
<b>14:40 – 14:50</b> <b>OP-14</b>	<b>Nikolaos Tsoureas, Department of Chemistry, University of Athens, Greece</b> "Unexpected Reactivity of a Low Valent Titanocene with Azides"
<b>14:50 – 15:00</b> <b>OP-15</b>	<b>Evangelos Papangelis, Department of Chemistry, University of Athens, Greece</b> "New Pyridine Dicarbene Pincer Ligands with Ring Expanded N-Heterocyclic Carbene Donors and their Transition Metal Complexes"
<b>15:00 – 15:10</b> <b>OP-16</b>	<b>Evangelia Tsitsou, Department of Chemistry, University of Athens, Greece</b> "Evaluation of Fe:Eu nanoparticles as imaging probes of cervical cancer cells"
<b>15:10 – 15:20</b> <b>OP-17</b>	<b>Charalampos Papapanagis, Department of Chemistry, University of Athens, Greece</b> "Exploring New Tripodal N-Heterocyclic Carbene Ligands Towards High- and Low-Valent Iron Complexes"
<b>15:20 – 15:30</b> <b>OP-18</b>	<b>Stamatis Passadis, Department of Chemistry, KU Leuven, Belgium</b> "Revitalisation of Group IV metal-oxo clusters: Synthetic approaches, structural motifs and applications"
<b>15:30 – 16:30</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS P#26 – P#63</b>	
<b>Plenary Session 6: PHYSICAL CHEMISTRY</b> Chairs: D. Tzeli, G. Souliotis	
<b>16:30 – 17:00</b> <b>PL-6</b>	<b>Brianna Heazlewood, University of Liverpool, United Kingdom</b> "New methods for studying ions and radicals at low temperatures"
<b>17:00 – 17:20</b> <b>IL-11</b>	<b>Francesco Allegretti, Privat Dozent, Technical University of Munich, Germany</b> "On-surface synthesis and post-synthetic modification of low-dimensional organometallic networks"
<b>17:20 – 17:40</b> <b>IL-12</b>	<b>David A. Duncan, University of Nottingham and Diamond Light Source, United Kingdom</b> "Understanding the structure of two-dimensional films using X-ray standing waves"
<b>17:40 – 18:00</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING</b>	



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<b>ORAL PRESENTATIONS, 18:00-19:00</b> Session 4: (n=6, 10 min each) Chairs: C. Proestos, V. Valdramidis	
<b>Oral presentations: Physical Chemistry</b>	
<b>18:00 – 18:10</b> OP-19	<b>Dimitra Tzeli, Department of Chemistry, University of Athens, Greece</b> “Breaking covalent bonds in the context of the many-body expansion”
<b>Oral presentations: Food Chemistry</b>	
<b>18:10 – 18:20</b> OP-20	<b>Mirjana B. Pešić, University of Belgrade - Faculty of Agriculture, Serbia</b> “Goat milk proteins as a promising ingredient for functional food”
<b>18:20 – 18:30</b> OP-21	<b>SHIYE LIN, Jinan University (China), Department of Food Science and Technology, University of Vigo, Spain</b> “The stability and degradation products of polyhydroxy flavonols in boiling water”
<b>18:30 – 18:40</b> OP-22	<b>Wenqi Huang, Jinan University (China), Department of Food Science and Technology, University of Vigo, Spain</b> “Stability and degradation mechanism of (-)-epicatechin in thermal processing”
<b>18:40 – 18:50</b> OP-23	<b>Pelagia Lekka, Department of Chemistry, University of Athens, Greece</b> “Metabolic Responses to Acute Wine Consumption: A Time-Dependent Nutri-Metabolomic Study of Phenolic Metabolites using High-Resolution Mass Spectrometry”
<b>18:50 – 19:00</b> OP-24	<b>Evmorfia Athanasopoulou, Agricultural University of Athens, Department of Food Science and Human Nutrition, Greece</b> “ICHTHYS: Optimization of novel value chains for fish and seafood by developing an integrated sustainable approach for improved quality, safety and waste reduction”
<b>19:00-20:00</b> <b>NanoCosmos Session: Nanoencapsulation of bioactive compounds from plant by products to produce sensitive skin cosmetics,</b> <b>EU funded project (Grant agreement ID: 101086323)</b>	
<b>20:00 – 22:00, ACAC 2024 Reception (on site)</b>	

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Day 3: Friday November 8<sup>th</sup>

<b>Plenary Session 7: ORGANIC CHEMISTRY</b> <b>Chairs: G. Vougioukalakis, T. Mavromoustakos</b>	
<b>10:00 – 10:30</b> <b>PL-7</b>	<b>Thomas Carell, Ludwig Maximilian University Munich, Germany</b> " Non-Canonical Nucleosides and Click Modification of Nucleic Acids "
<b>10:30 – 10:50</b> <b>IL-13</b>	<b>Konstantinos Neohoritis, Department of Chemistry, University of Crete, Greece</b> " Access to high rotational barrier atropisomers "
<b>10:50 – 11:10</b> <b>IL-14</b>	<b>Christos Stathakis, Department of Chemistry, University of Crete, Greece</b> " A Special Case of Divergent Synthesis "
<b>11:10 – 12:00</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS #64-84</b>	
<b>Plenary Session 8: INDUSTRIAL CHEMISTRY</b> <b>Chairs: M. Chatzichristidi, M. Pitsikalis</b>	
<b>12:00 – 12:30</b> <b>PL-8</b>	<b>Marinos Pitsikalis, Department of Chemistry, University of Athens, Greece</b> "Inorganic Chemistry/Polymer Chemistry: A success story The case of coordination polymerization of isocyanates employing half-titanocene complexes"
<b>12:30 – 12:50</b> <b>IL-15</b>	<b>Panagiota Petrou, NCSR "Demokritos", Greece</b> "Optical immunosensors: Analytical tools with many application "
<b>12:50 – 13:10</b> <b>IL-16</b>	<b>Stergios Pispas, Theoretical and Physical Chemistry Institute, NHRF, Greece</b> "Novel synthetic copolymers for creating biohybrid nanostructures"
<b>13:10 – 14:30</b> <b>LUNCH BREAK</b>	
<b>ORAL PRESENTATIONS, 14:30-15:30</b> <b>Session 5: (n=6, 10min each)</b> <b>Chairs: M. Chatzichristidi, T. Mavromoustakos</b>	
<b>Oral presentations: Organic Chemistry</b>	
<b>14:30 – 14:40</b> <b>OP-25</b>	<b>Georgios C. Vougioukalakis, Department of Chemistry, University of Athens, Greece</b> "Multicomponent Reactions: Creating Complexity via Sustainable Catalytic Transformations"
<b>14:40 – 14:50</b>	<b>Victoria Magrioti, Department of Chemistry, University of Athens, Greece</b>





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OP-26	“Microwave-assisted and base-dependent synthesis of $\gamma$ -lactones or esters using N-heterocyclic carbenes as organocatalysts”
14:50 – 15:00 OP-27	<b>Nikitas Georgiou, Department of Chemistry, University of Athens, Greece</b> “Chalcones and 4-hydroxy-2-quinolinone-triazole hybrid derivatives a, b and c as potential anti-inflammatory agents”
<b>Oral presentations: Industrial Chemistry</b>	
15:00 – 15:10 OP-28	<b>Iren G. Stavrakaki, Department of Chemistry, University of Athens, Greece</b> “Complexation of anticancer Pt-drugs on Polymers containing poly(L-Histidine)”
15:10 – 15:20 OP-29	<b>Athanasia Fouka, Department of Chemistry, University of Athens, Greece</b> “Optimization of hydrothermal synthesis of copper oxide on flexible substrates”
15:20 – 15:30 OP-30	<b>Nikolaos V. Plachouras, Department of Chemistry, University of Athens, Greece</b> “Statistical copolymers of N-Vinyl Pyrrolidone and 2-Chloro Ethyl Vinyl Ether via Radical RAFT Polymerization as scaffolds for the synthesis of complex macromolecular architectures”
<b>15:30 – 16:30</b> <b>POSTER VIEWING, EXHIBITION AND NETWORKING COFFEE BREAK</b> <b>POSTERS P#64 – P#84</b>	
<b>16:30-17:30</b> <b>Closing Ceremony</b>  <b>Best poster awards – Best oral presentation awards</b>	

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