

Janusz Pawliszyn and Xin Yan were presented with the 2023 Awards in Analytical Chemistry

In 2020, the Analytical Chemistry Division (Division V) established two awards honoring excellence in analytical chemistry. The IUPAC Analytical Chemistry Medal honors significant lifetime contributions to the aims of the Analytical Chemistry Division of IUPAC and the Emerging Innovator Award in Analytical Chemistry recognizes outstanding work undertaken by an emerging analytical scientist that corresponds to the aims of the Analytical Chemistry Division of IUPAC. These awards recognizing outstanding analytical chemists are conferred and award lectures are presented during General Assemblies.

In 2023 Janusz Pawliszyn received the IUPAC Analytical Chemistry Medal recognizing a lifetime of world leading, foundational research in analytical sample preparation and the invention of solid phase microextraction. He is



Janusz Pawliszyn

Canada Research Chair Professor, University of Waterloo, Ontario, Canada.

The primary focus of his research program is the design of highly automated and integrated instrumentation for the isolation of analytes from complex matrices and the subsequent separation, identification, and determination of these species using gas chromatography, liquid chromatography, and capillary electrophoresis coupled to variety of detections systems, including a range of mass spectrometry techniques. Currently his research is working to eliminate organic solvents from sample preparation to enable on-site monitoring and in-vivo analysis. His research also explores the application of the



Xin Yan

computational and modeling techniques to enhance performance of sample preparation, chromatographic separations, and detection.

Pawliszyn's award lecture, "Significance of Fundamentals in Development and Optimization of Sustainable Sampling and Sample Preparation Technologies" is available on YOUTUBE.

In 2023 Xin Yan, Assistant Professor, Texas A&M University received the Emerging Innovator Award in Analytical Chemistry recognizing her ground-breaking work in electrochemical reactions in droplets using mass spectrometry.

Her research combines expertise in mass spectrometry, microdroplet chemistry, electrochemistry, and biology to develop novel approaches for disease diagnosis, structural lipidomics, and accelerated electrochemical reactions. In particular, the work is motivated by the possibility of enabling new technology for next-generation approaches to precision medicine, and sustainable synthesis. Her research interests span a range of topics; including structural lipidomics, metabolomics in brain research, interfacial electrochemical reactions, and novel electrogenerated cationic transition-metal electrocatalysis. Her research group is highly interdisciplinary, providing students the opportunity to obtain hands-on experience in analytical, biological and synthetic chemistry.

Yan's award lecture "Microdroplet Mass Spectrometry for Lipid Isomer "Analysis and Accelerated Discovery of Transition Metal Catalysis" is available on YOUTUBE.

<https://iupac.org/the-2023-awards-in-analytical-chemistry/>

Franzosini Award to Yongheum Jo

The 2022 Franzosini Award was given to Yongheum Jo, in recognition of his contribution to the IUPAC Solubility Data Project, at the 22nd Annual Meeting of the IUPAC Subcommittee on Solubility and Equilibrium Data, held in Bragança, Portugal, on 12 September 2022, during the 20th International Symposium on Solubility Phenomena and Related Equilibrium Processes.

Yongheum Jo completed his bachelor's degree in 2014 and master's degree in 2016, both from the Korea Advanced Institute of Science and Technology (KAIST) in South Korea. He then received a PhD in radiochemistry in the Department of Nuclear Engineering under the academic supervision of Jong-Il Yun (KAIST). Following

his PhD studies at KAIST, Jo did a PostDoc at the Institute for Nuclear Waste Disposal (Institut für Nukleare Entsorgung, INE) of the Karlsruhe Institute of Technology (KIT), Germany, from 2020 to 2022. Research at KIT-INE was mainly focusing on a better description of Nb(V) aquatic chemistry in cementitious environments. Niobium-94 is an



Yongheum Jo

activation product potentially present as part of nuclear waste, and a better understanding of Nb aqueous speciation and retention processes in cementitious environments are needed to provide a significantly improved description of Nb(V) mobility in an applied repository context.

After his PostDoc at KIT-INE, Jo worked as a senior researcher at Korea Atomic Energy Research Institute (KAERI) from 2022 to 2023. Starting in 2023, Jo assumed the role of an assistant professor in the Department of Nuclear Engineering at Hanyang University in Korea. His current work focuses on Nb solids solubility in alkaline aqueous solution in the presence of organic materials. The objective of this topic is to establish a comprehensive chemical thermodynamic description of Nb solids solubility in the presence of organic compounds and Nb-organic complexation. In addition, he is developing a chemical model that depicts the chemical interaction between organics and cementitious materials, covering dissolution and precipitation phenomena. Building on his previous work, he is expanding his investigation to explore the ternary M-AnO₂-CO₃ system in the context of neptunium(VI) to derive chemical equilibrium data. His research group will continue to explore the chemical thermodynamics to unravel the chemical processes of radionuclides in various environments.

Yongheum Jo has an impressive set of excellent scientific knowledge and expertise. This is covering a broad field in the context of actinide and radionuclide chemistry relevant in fundamental research and to assess scenarios in nuclear waste disposal and the back-end of nuclear fuel cycle. Studies on solubility phenomena and the related chemical speciation play a key role in his research profile.

More details at <https://iupac.org/what-we-do/awards/franzosini-award/>

ISC's Unlocking Science series wins Digital Communications Award

The multimedia series *Unlocking Science*, produced in partnership with BBC StoryWorks, the International Science Council (ISC) Members and other partners, is voted the best in the 'Video Series' category at the prestigious Digital Communications Awards (DCA).

The *Unlocking Science* multimedia hub, which uncovers innovative global stories behind the science of sustainability, was lauded by the DCA jury for its compelling and innovative storytelling. These stories feature communities engaging with science and technical innovation to deliver transformation. The series covers researchers out in the world working on practical solutions or shaping our understanding of the problem. One of the most popular films recounts one woman's quest to save Malawi's crops and rethink the future of farming. In another film, a team of researchers weed out discrimination for an inclusive AI world. The stories represent a wide array of science disciplines and take audiences from the outback of Australia to the forests of the Amazon.

<https://council.science/current/news/dca-award/>

Richard Hartshorn elected CODATA Vice President

Held on 27-28 October 2023, in Salzburg and online, the 2023 CODATA General Assembly elected a strong and diverse Executive Committee and approved eight Task Groups and one Working Group. The full summary of the General Assembly, including presentations, results of voting and the recordings can be consulted on codata.org.

For the first time in CODATA's 57-year history, CODATA has elected a female president, and the overall gender balance is 7-8 (female-male) for the elected members is the best ever. This is also the highest number of Officers/ExComm members nominated by International Scientific Unions in at least the last ten years, which shows a confidence in CODATA mission to engage with data issues from a range of scientific fields. Coming from IUPAC, former Secretary General Richard Hartshorn has been serving as a member of the Executive Committee since 2018 and is now elected