



Advances in (Bio-)Analytical Chemistry—meet the contributors of ABC's Reviews and Trends Collection 2024

Nicola Oberbeckmann-Winter¹

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Analytical and Bioanalytical Chemistry (ABC) proudly presents this first edition of a new collection featuring exceptional review-type articles by the journal's Editorial Board:

Advances in (Bio-)Analytical Chemistry: Reviews and Trends Collection 2024

Our thanks go to the ABC Editors and the International Advisory Board who are strongly committed and dedicated to this journal. Meet the participating authors who created this unique collection with its broad spectrum and thematic diversity.



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Antje J. Baeumner is Director of the Institute of Analytical Chemistry, Chemo- and Biosensors at the University of Regensburg and remains Adjunct Professor in her former home institution, the Department of Biological and Environmental Engineering at Cornell University in Ithaca, NY, USA. Since 2023, she has also been Director of the Fraunhofer Institute Branch of Bioanalysis and Bioprocesses (IZI-BB) in Potsdam. She is Chair Editor of the Springer Nature journal *Analytical and Bioanalytical Chemistry*. Among the several conferences she organized, she was most recently chair of the 2022 Gordon Research Conference on Nanotechnology for Agriculture and Food Systems. Her research is focused on the development of biosensors and microTotal Analysis Systems for the on-site detection of pathogens and toxins in food, the environment, and for clinical diagnostics with special emphasis on the development of novel nanomaterials. Her impact in the scientific community was recognized early on by being a Blavatnik Award finalist, and more recently by being among the 100 top influential analytical chemists worldwide (*Analytical Scientist*) and receiving the 2023 Robert Kellner Lecture Award from the Analytical Division of the European Chemical Societies.

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✉ Nicola Oberbeckmann-Winter
nicola.oberbeckmann-winter@springer.com

¹ Analytical and Bioanalytical Chemistry, Springer-Verlag, Tiergartenstrasse 17, 69121 Heidelberg, Germany



Yu Bai is Boya Distinguished Professor of Analytical Chemistry at Peking University. She received her Ph.D in physical chemistry from the Changchun Institute of Applied Chemistry, Chinese Academy of Sciences. After completing post-doctoral research at the University of Toronto, she joined Peking University in early 2008. Her research interest is in the development of novel mass spectrometry methods for the accurate measurement of markers in complex biological systems. She has published more than 120 peer-reviewed papers, H-index 38. She was awarded with the National Distinguished Young Scholars of China in 2021 and Chinese National Science Foundation for Excellent Young Scholars in 2013. She is on the Early Career Board of *Analytical Chemistry*, and the editorial boards of *Journal of the American Society for Mass Spectrometry*, *Analytical and Bioanalytical Chemistry*, and *Chemical Journal of Chinese Universities*. She won two first prizes in the Science and Technology Award of China Association for Instrumental Analysis (China) in 2015 and 2023.



Erin S. Baker is Associate Professor at the University of North Carolina at Chapel Hill. To date, she has published over 170 peer-reviewed papers utilizing different analytical chemistry techniques to study both environmental and biological systems. She has received seven US patents and two R&D 100 Awards; been named in the 2019, 2021, and 2023 *Analytical Scientist* Top 100 Power Lists; and was a recipient of the 2016 ACS Rising Star Award for Top Midcareer

Women Chemists, 2022 ASMS Biemann Medal, and 2022 IMSF Curt Brunnée Award. Currently, her research group utilizes advanced separations and novel software capabilities to examine how chemical exposure affects human health.



Barbara Bojko is Head of the Department of Pharmacodynamics and Molecular Pharmacology at the Faculty of Pharmacy, Nicolaus Copernicus University (NCU), in Torun, and a member of the Scientific Board of the Centre of Excellence “Towards Personalized Medicine” at NCU. Her research focuses mainly on the introduction of new analytical solutions based on microextraction and microsampling techniques to clinical diagnostics and pharmaceutical analysis. Her particular interests are in low- and non-invasive tissue analysis in oncology, transplantology, and translational medicine.



Susana Campuzano is Professor at the Analytical Chemistry Department of the Chemistry Faculty of the Universidad Complutense de Madrid (Spain) and Head of the “Electroanalysis and Electrochemical (Bio)Sensors” research group. Her areas of interest include the development of affinity-based electrochemical bioplatfroms with potential for multiplexed and/or multiomics determinations in precision medicine and nutrition. She is Associate Editor of the international journal *Electroanalysis* and member of the Editorial Boards of *Analytical and Bioanalytical Chemistry*, *Talanta*, and *Biosensors and Bioelectronics: X*.

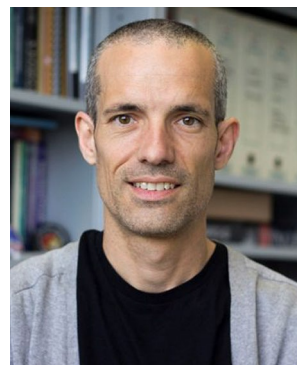


Soledad Cárdenas is Full Professor at the Department of Analytical Chemistry (University of Córdoba). Since 2016, she has been Head of the Affordable and Sustainable Research Group. Her research interests have been deeply related to the synthesis and characterization of novel sustainable extractant phases to be exploited in sample treatment. The analysis of the synthesized substrates by ambient mass spectrometry is under development. In the field of sample treatment, she is coordinator of the national thematic network “Spanish Network for Sustainable Sample Preparation,” president of the Sample Preparation Group of the Spanish Society of Analytical Chemistry, and member of the European Committee of the EuChemS-DAC Sample Treatment Study Group. She is an editor of *Analytical and Bioanalytical Chemistry*.



Håkan Emteborg has a PhD in analytical chemistry from Umeå University, Sweden (1995). From 1996 onwards, he gained experience from academia and research institutes following postdocs in Belgium and Spain. He also worked for LECO Corporation and ABB Corporate Research in Sweden for a number of years. In 2003, he joined the Reference Material Unit at the European Commission's Joint Research Centre in Geel, Belgium, on a permanent basis. Since 2005, he has managed the reference material processing facility and since 2018 the Reference Material Production Laboratory. His main research interests are focussed on the development of new innovative types of reference materials and process analytical techniques. During the last

years, microplastics reference materials have been among such innovative material developments encompassing both processing techniques and measurement techniques. He is author/co-author of more than 80 scientific publications.



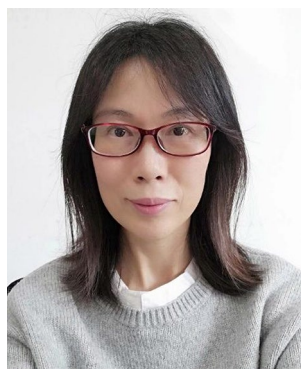
Miguel Herrero is a tenured Researcher at the Institute of Food Science Research (CIAL) and has belonged to the Spanish National Research Council (CSIC) since 2016. His main research lines involve the study and characterization of new functional ingredients, including the development of new advanced extraction and analytical methods to obtain and characterize interesting food-related compounds, particularly, the development of new methods and applications using comprehensive two-dimensional liquid chromatography (LC×LC) coupled to mass spectrometry. He has been lucky enough to receive several awards and is co-author of more than 125 SCI research papers.



Christoph Kleber is Professor at the Faculty of Medicine and Dentistry and Head of the Department of Physics and Chemistry of Materials at the Danube Private University (DPU) in Krems, Austria. He received his diploma and PhD degree from the Technical University in Vienna and obtained his habilitation in materials science. Before his appointment as Full Professor at the DPU, he was Scientific Director and CEO of Austria's Centre of Excellence for Electrochemical Surface Technology. He led numerous national and international research projects, and his research interests are surface and interface electrochemistry for application in sensing devices for medical applications.



Maili Liu is a member of the Chinese Academy of Sciences and Professor in the State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, Wuhan Institute of Physics and Mathematics, Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences, Wuhan, China. His research interests focus on the development and application of NMR for biomolecular studies.



Baohong Liu is Professor in the Department of Chemistry at Fudan University, China. She received her B.S. and Ph.D. degrees in chemistry from Fudan University. She has been an invited professor at the Ecole Polytechnique Fédérale de Lausanne, Ecole Normale Supérieure Paris and ParisTech. She is a fellow of the Royal Society of Chemistry. Her research interests mainly focus on biosensing, single-molecule detection, micro-/nanofluidic analysis, and mass spectrometry for biomedical sciences.



María Jesús Lobo-Castañón is Professor at the University of Oviedo, Department of Physical and Analytical Chemistry, Spain, where she leads the Electroanalysis Research Group. Her current research interests focus on the development of electrochemical sensors for clinical diagnosis and food analysis, using different molecular recognition elements, such as enzymes, DNA, and aptamers.



Cosimino Malitesta is Professor of Analytical Chemistry in the Department of Biological and Environmental Sciences and Technologies at University of Salento (Lecce – Italy). He has been Vice President of the Analytical Chemistry Division (DCA) and on the board of the Sensors Group of the Italian Chemical Society (SCI). His main current interests are relevant to electrochemical biomimetic sensors based on molecularly imprinted polymers, chemometric techniques for the optimization of analytical devices, and analytical characterization of micro-/nanoplastics in environmental matrices. He was awarded the 2022 Canneri Medal by DCA-SCI.



Juris Meija is Senior Research Officer at the National Research Council Canada. His research focuses on improving the reliability of chemical measurements by developing certified reference materials and international documentary standards, evaluation of measurement uncertainties, and better understanding of isotope ratio measurements.



Junhong Min conducts research in advanced biotechnology and biochemical engineering, with a focus on microfluidic biosensing devices for the in situ detection of biomarkers and pathogens in clinical and environmental samples through novel sample preparation, electrochemical biosensor design, and nanomaterial applications. In 1998, he received his PhD from Sogang University in Seoul and was a postdoctoral fellow at Cornell University in 2000. He worked for a start-up company in the USA before becoming a project leader in Samsung Group (South Korea, 2003–2007). He is currently working as Professor in the Department of Biomedical Engineering at Chung-Ang University in Seoul, South Korea.



Zongxiu Nie received his Ph.D. degree in 2003 from the Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences (CAS). He conducted his postdoctoral research during 2005–2007 at the Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan, and Purdue University during 2007–2008. He is now Professor at the Institute of Chemistry, CAS. He was awarded the National Science Foundation for Distinguished Young Scholars in 2016. His research interests include particle mass spectrometry (MS), new MS analytical methods, and MALDI MS imaging. He has contributed more than 100 peer-reviewed articles.



Sibel A. Ozkan has been working as Full Professor of Analytical Chemistry at Ankara University, Faculty of Pharmacy, since 1986. She is an active member of the European Chemical Society-DAC member on behalf of the Turkish Chemical Society. She is a member of the European Pharmacopoeia-EDQM-Chromatography Section. She has been involved in several analytical chemistry projects related to LC methods, separation techniques, chiral separation, drug analysis, electrochemical biosensors, nanosensors, nano-biosensors, MIP sensors, DNA biosensors, enzyme biosensors,

biomarkers, environmental sensors, method development, and validation of drug assays. She has several international and national awards, such as “Ankara University Scientific Support Award, 2003,” “The Best PhD Thesis in Turkey Award 2017,” Ton Duc Thang University “Woman in Science 2019” Prize, and the Ankara University Science Award, September 2020. She is Editor of the *Journal of Pharmaceutical and Biomedical Analysis* (SCI-Elsevier), Section Editor (Analytical & Environmental) of *Essential Chem* (Taylor & Francis), and *Current Pharmaceutical Analysis* Regional Editor (Europe part).



Valérie Pichon is Full Professor at Sorbonne University and Head of the Analytical Chemistry Department at ESPCI Paris (PSL University). Her research focuses on the development and miniaturization of antibody- or aptamer-based sorbents and imprinted polymers for trace analysis in complex samples, and their coupling with LC–MS systems. She was awarded the Analytical Chemistry Department Prize of the French Society of Chemistry (2001), the Silver Medal of the French National Center for Scientific Research (2022), and recently the Research Prize of the French Association for Separation Sciences (2023).



Giorgia Purcaro is Professor of Analytical Chemistry at Gembloux Agro-Bio Tech, University of Liège (Belgium). Her research focuses on the development of robust, rapid,

and possibly miniaturized techniques for the analysis of food quality and safety. The core of her research has been developed using advanced and hyphenated chromatographic methods to offer more informative solutions for daily applications. As a young scientist, she was recognized with the Leslie Ettre award, for the most outstanding contribution in the field of separation science; later she was the recipient of the prestigious J. Philipps award for her contribution in the field of comprehensive two-dimensional gas chromatography. She was included among the “Top 40 under 40” in analytical science by *The Analytical Scientist* magazine, and she included in the ranking of Stanford University among the 2% most cited researchers in the world (2021–2023, single-year impact).



Slavica Ražić is Full Professor in the Department of Analytical Chemistry, Faculty of Pharmacy, University of Belgrade, and currently Head of the Department of Analytical Chemistry. She was Chair of DAC-EuChemS (Division of Analytical Chemistry of the European Chemical Society) 2017–2022 and is currently Past-Chair, member of the DAC-EuChemS Steering Committee, and member of the EuChemS Executive Board. She was also elected Titular Member of the Division of Analytical Chemistry of IUPAC for the term 2024–2025. Her current research interests lie mainly in environmental analytical chemistry, the development of methods for the determination of trace/minor elements and biologically active organic compounds in complex matrices in combination with modern sample preparation techniques, and the application of more environmentally friendly solvents/extractions in line with the principles of green (analytical) chemistry.



Torsten C. Schmidt is Full Professor for Instrumental Analytical Chemistry at the University of Duisburg-Essen (UDE), Director of the Centre for Water and Environmental Research (ZWU) at UDE and Scientific Director at the IWW Water Centre in Muelheim an der Ruhr. From 2013 to 2021, he was President of the German Water Chemistry Society. In 2013, he received the Fresenius Award of the German Chemical Society; in 2022, the Ruhr Award for Arts and Science. He is (co-)author of 340 peer-reviewed publications and two books. His main research interests include (i) the development and application of analytical methods with a focus on separation techniques (GC, LC), sample preparation, high-resolution MS, and compound-specific stable isotope analysis; (ii) process-oriented environmental chemistry with focus on the fate of organic pollutants in soil and water systems; and (iii) oxidation processes in water technology. ORCID: 0000-0003-1107-4403.



Sabine Szunerits is Full Professor of Chemistry at the University of Lille. Her current research interests are in the area of materials science, with an emphasis on the development of novel nanostructures and approaches for nanomedical applications, as well as sensing-related issues. She is co-author of more than 450 research publications, wrote 24 book chapters, and has 10 patents. In 2018, she was awarded the Médaille d'argent CNRS for her contribution to sensing and

nanomedicine. In 2023, she was awarded the rank of Chevalier in the Ordre National de la Légion d'Honneur.



B. Jill Venton is Thomas Jefferson Professor and Chair of the Department of Chemistry at University of Virginia. She received the NSF CAREER award, the SEAC Young Investigator award, and recently won the ACS Advances in Measurement Sciences Lectureship. Her lab develops new techniques, primarily electrochemical, to understand neurotransmission in model organisms, such as fruit flies or rodents.



Stephen A. Wise is currently a scientific consultant in the Office of Dietary Supplements at the National Institutes of Health (NIH ODS) in Bethesda, Maryland, USA, where he provides support for the Analytical Methods and Reference Materials Program, which is intended to stimulate development of validated methods and reference materials for dietary supplement ingredients and nutritional biomarkers. He is Scientist Emeritus at the National Institute of Standards and Technology (NIST) in Gaithersburg, Maryland, USA, where he was involved in the development of Standard Reference Materials (SRMs) for trace organic constituents in environmental, clinical, food, and dietary supplement matrices. He is one of the founding editors of *Analytical and Bioanalytical Chemistry*.



Adam T. Woolley is Dean of Graduate Studies and University Professor at Brigham Young University in Utah, USA. He is author or co-author of more than 150 peer-reviewed papers, has given over 200 scientific presentations, and has received 14 patents related to his research, which is focused on the interrelationship between biological molecules and miniaturization. He has received several recognitions, including the American Chemical Society Division of Analytical Chemistry Award for Young Investigators in Separation Science, US Presidential Early Career Award for Scientists and Engineers, the American Electrophoresis Society (AES) Mid Career Award, Fellow of the American Chemical Society, and the Utah Award from the American Chemical Society. He is an editor of *Analytical and Bioanalytical Chemistry*.



Chaoyong Yang is Distinguished Professor in the Department of Chemical Biology, Xiamen University. He received many awards, including CAPA Distinguished Faculty Award

in 2012, National Outstanding Young Investigator Award in 2013, Chinese Young Analyst Award in 2015, Chinese Chemical Society-Royal Society of Chemistry Young Chemist Award in 2016, and 2021 ACS Advances in Measurement Science Lectureship Award. His research focuses on the development of novel chemical and microfluidic tools for life sciences research and disease diagnosis, which integrates molecular engineering approaches, bio-nanotechnologies, and microfluidics to develop novel methods, smart materials, and functional miniaturized devices to address previously intractable bioanalytical and biomedical problems.



Joseph Zaia serves as Professor of Biochemistry at the Boston University Chobanian & Avedisian School of Medicine. His primary role is as a research mentor for a group of undergraduate and graduate students and postdoctoral scientists. His research concerns biochemistry of extracellular matrix molecules including glycoproteins and proteoglycans using mass spectrometry-based proteomics, glycomics, glycoproteomics, and bioinformatics. He has published more than 170 articles in peer-reviewed scientific journals and has an H-index of 56. He received the 2020 Journal of the American Society for Mass Spectrometry reviewer award and the 2021 American Society for Biochemistry and Molecular Biology Molecular and Cellular Proteomics lectureship award. He is an editor of *Analytical and Bioanalytical Chemistry*.

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