

www.bceia.cn

2023
BCEIA

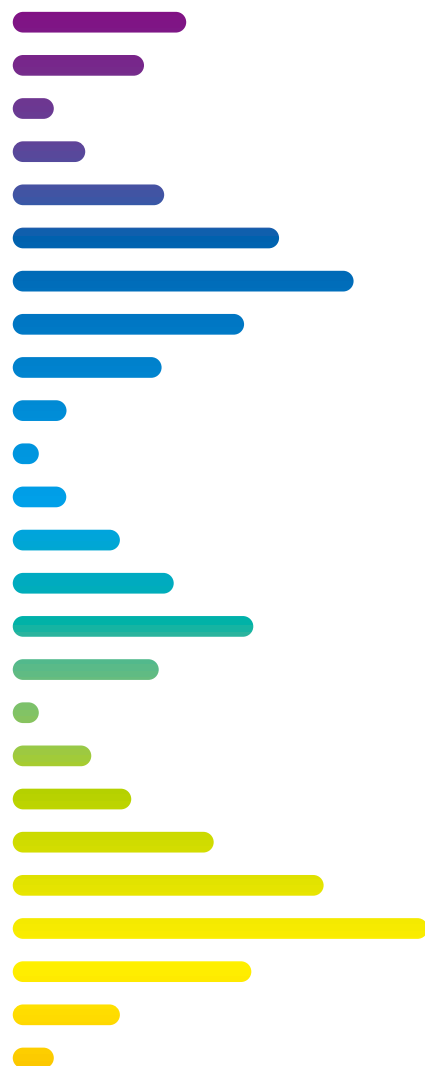
THE 20th 第二十届北京分析测试学术报告会暨展览会
BEIJING CONFERENCE AND EXHIBITION
ON INSTRUMENTAL ANALYSIS

ACADEMIC CONFERENCE PROGRAM 学术会刊

2023.09.6-8

CHINA INTERNATIONAL EXHIBITION CENTER (SHUNYI HALL), BEIJING.

中国国际展览中心〔顺义馆〕



CHINA ASSOCIATION FOR INSTRUMENTAL ANALYSIS
中国分析测试协会



LEADING THE FIELD OF ANALYTICAL CHEMISTRY AND MEASUREMENT SCIENCE



@ACSPublications
pubs.acs.org



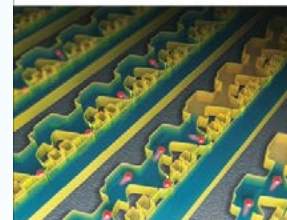
ACS Publications
Most Trusted. Most Cited. Most Read.



ROYAL SOCIETY
OF CHEMISTRY

学术为魂, 学界引领, 学会出版
Insightful. Community led. Society owned

Lab on a Chip



Lab on a Chip

rsc.li/loc

Lab on a Chip 报道微米和纳米尺度上的微型化研究, 力求发表在物理技术(微米或纳米级的制造、流控、系统集成、分析分离技术等)和应用潜力方面都具有高影响力的原创性工作。该刊最为看重论文的创新性, 所发表的论文通常要在以下两个方面都有所创新: (i) 微型化器件的物理、工程和材料; (ii) 在生命科学、化学、环境科学、食品科学、医学、能源等领域中的应用。

2-年影响因子*: 6.1 5-年影响因子*: 6.9 CiteScore †: 11.3
最高 JCR 分区*: Q1 (Instruments & Instrumentation)
上一审周期: 39 天 (中位数, 仅统计进入同行评审阶段的稿件)

Editor-in-Chief

- Aaron Wheeler, 多伦多大学

Associate editors

- Jean-Christophe Baret, 波尔多大学
- Yoon-Kyoung Cho, 蔚山科学技术院
- Amy Herr, 加州大学伯克利分校
- Xingyu Jiang (蒋兴宇), 南方科技大学
- Séverine Le Gac, 特文特大学
- Hang Lu, 佐治亚理工学院
- Manabu Tokeshi, 北海道大学
- HongKai Wu (吴洪开), 香港科技大学

Sensors & Diagnostics



Sensors & Diagnostics

rsc.li/sensors

新刊

Sensors & Diagnostics 致力于成为传感与诊断领域的优质出版平台, 发表高影响力的创新性研究工作, 包括新型的材料、新颖的检测原理以及对已有装置的重大改进等。这些工作的应用范围十分广泛, 囊括生物医学、药物开发、环境、食品、医学、安保和安防等等。所发表的工作需能获得相关领域研究人员的广泛关注, 在必要时还应开展原位或实际的样品检测。作为一本金色开放获取的期刊, 读者可免费获取论文的全文, 同时在2024年年中前免收论文发表费用 (APC)。

Editors-in-Chief

- Sabine Szunerits, 里尔大学
- Xueji Zhang (张学记), 深圳大学

Associate editors

- Ilka Engelmann, 蒙彼利埃大学
- Carlos D. Garcia, 克莱姆森大学
- Wei Gao (高伟), 加州理工学院
- Quan Yuan (袁荃), 湖南大学
- Lisa Hall, 剑桥大学
- Mei Tian (田梅), 复旦大学

Editorial board member

- Sahika Inal, 阿卜杜拉国王科技大学

* 2022 Journal Citation Reports (Clarivate, 2023)
† CiteScore 2022 by Elsevier

About the RSC

英国皇家化学会 (Royal Society of Chemistry, RSC) 成立于 1841 年, 在全球范围内拥有超过五万名会员, 是历史最悠久也最具影响力的化学专业团体之一。

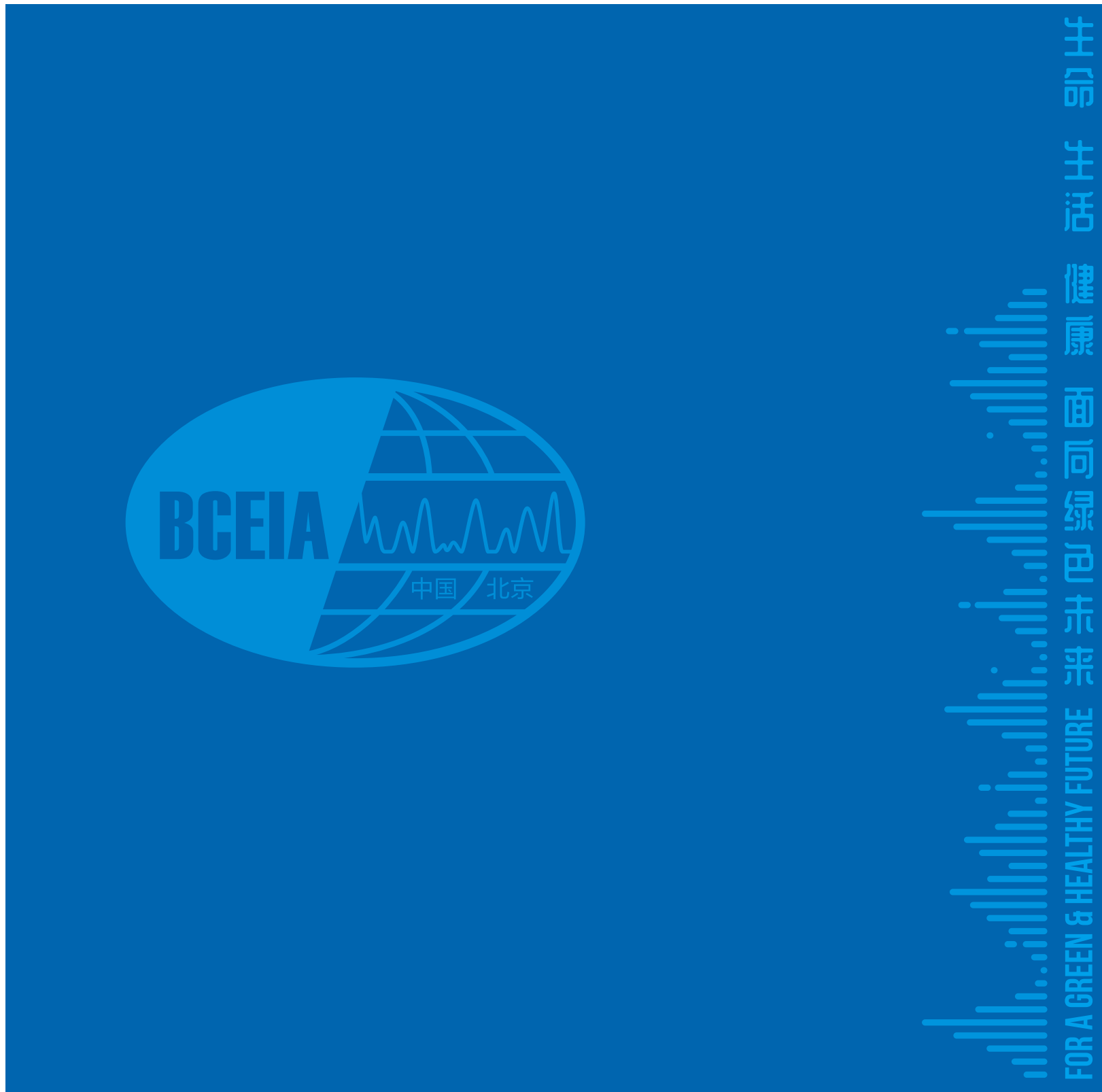
英国皇家化学会旗下的 50 余本学术期刊不仅以前沿的科研论文和权威的研究综述享誉全球化学界, 更因其严谨的科学态度、公正的同行评审、迅捷的出版速度而广受好评。

英国皇家化学会是一家非营利机构, 包括学术出版业务在内的各项盈余均被用于“推动化学科学进步与发展”的学会使命。

联系我们:
RSCChina@rsc.org



英国皇家化学会
官方微信
欢迎关注我们
及时获取最新信息



BCEIA2023 CONTENTS

Preface	02
Conference General Schedule.....	03
BCEIA2023 Academic Committee.....	04
Plenary Session.....	06-12
Schedule.....	06
Biography & Abstract.....	07-12
Parallel Sessions.....	16-82
A. ELECTRON MICROSCOPY AND MATERIALS SCIENCES	16-20
B. MASS SPECTROMETRY	21-29
C. OPTICAL SPECTROSCOPY	30-35
D. CHROMATOGRAPHY.....	36-40
E. MAGNETIC RESONANCE.....	41-43
F. ELECTROANALYTICAL CHEMISTRY.....	44-47
G. ANALYTICAL TECHNIQUES IN LIFE SCIENCES.....	48-53
H. ENVIRONMENTAL ANALYSIS.....	54-62
I. CHEMICAL METROLOGY AND REFERENCE MATERIALS.....	63-69
J. LABELED IMMUNOASSAY TECHNOLOGY.....	70-76
K. MICRO TOTAL ANALYSIS	77-82





PREFACE

The 20th Beijing Conference and Exhibition on Instrumental Analysis (BCEIA 2023) is scheduled to be held on September 6-8, 2023 at China International Exhibition Center (Shunyi Hall), Beijing. Adhering to the vision of "Analytical Science Creates Future", BCEIA 2023 will continue to host academic conferences, forums, and exhibitions under the theme of "For a Green & Healthy Future". Prof. Guibin Jiang, academican of CAS from the Research Center for Eco-Environmental Sciences, CAS is the President of BCEIA2023. Prof. Yukui Zhang, academican of CAS from the Dalian Institute of Chemical Physics, CAS is chairing the BCEIA 2023 Academic Committee.

The BCEIA Plenary Lectures Session has always been at the forefront of advances in science and technology. World-renowned scientists will be invited to discuss recent developments in analytical sciences, including in areas such as brain science, proteomics, nanotoxicology, clinical diagnostics, drug design, and vaccine development, and share their perspectives and research results in fields such as life sciences, new energy, and new materials. The eleven parallel sessions -Electron Microscopy and Materials Sciences, Mass Spectrometry, Optical Spectroscopy, Chromatography, Magnetic Resonance Spectroscopy, Electroanalytical Chemistry, Analytical Techniques in Life Sciences, Environmental Analysis, Chemical Metrology and Reference Materials, Labeled Immunoassay and Micro Total Analysis will involve discussions and academic exchanges under different themes and topics in these fields.

In response to the global demand for green, low-carbon, and sustainable development, and the high priority on health considered by the whole society, this year's BCEIA will host two interdisciplinary and cross-field forums on the theme of "Post-Pandemic Big Health Development" and "Sustainable Science and Technology under the 'Dual Carbon' Strategy", to discuss hot topics with wide social consequences. Additionally, a series of concurrent meetings and forums with diverse themes and rich content will be held during the three days event. The posters session will showcase the latest scientific research achievements of young scholars, with excellent posters supported by the China Association for Instrumental Analysis (CAIA), American Chemical Society (ACS), and Royal Society of Chemistry (RSC) jointly.

With a total exhibition area of 53,400 m², BCEIA 2023 will showcase cutting-edge worldwide technologies and state-of-the-art instruments in the field of analytical sciences.

We sincerely look forward to your participation!

China Association for Instrumental Analysis
2023.9

CONFERENCE GENERAL SCHEDULE

Date	Time	Item	Location
Sept.6	9:00-17:00	Registration	South Entry Hall (南登录大厅)
	9:00-17:00	Plenary Session	Room W201, Academic Conference Area
Sept.7	9:00-12:00	Post-Pandemic Big Health Development Forum	Room W201, Academic Conference Area
	13:30-17:00	Sustainable Science and Technology under the "Dual Carbon" Strategy Forum	Room W201, Academic Conference Area
	9:00-17:00	Parallel Sessions (Oral Presentations, Posters)	Oral Presentations: Academic Conference Area Posters: Academic Conference Area
		A Electron Microscopy and Materials Sciences	Room : E302
		B Mass Spectrometry	Room : W105
		C Optical Spectroscopy	Room : E206
		D Chromatography	Room : W104
		E Magnetic Resonance Spectroscopy	Room : E303
		F Electroanalytical Chemistry	Room : W102
		G Analytical Techniques in Life Sciences	Room : E201
		H Environmental Analysis	Room : W103
		I Chemical Metrology & Reference Materials	Room : E203
		J Labeled Immunoassay	Room : E301
		K Micro Total Analysis	Room : E306
Sept.8	9:00-17:00	Parallel Sessions (Oral Presentations, Posters)	Oral Presentations: Academic Conference Area Posters: Academic Conference Area
		A Electron Microscopy and Materials Sciences	Room : E302
		B Mass Spectrometry	Room : W105
		C Optical Spectroscopy	Room : E206
		D Chromatography	Room : W104
		E Magnetic Resonance Spectroscopy	Room : E303
		F Electroanalytical Chemistry	Room : W102
		G Analytical Techniques in Life Sciences	Room : E201
		H Environmental Analysis	Room : W103
		I Chemical Metrology & Reference Materials	Room : E203
		J Labeled Immunoassay	Room : E301
		K Micro Total Analysis	Room : E306
	14:00-15:00	BCEIA Best Posters Awards Ceremony	South Entry Hall (南登录大厅)

BCEIA 2023 ACADEMIC COMMITTEE

Chair

Yukui ZHANG Member of CAS, Dalian Institute of Chemical Physics, CAS

Vice Chair

Guibin JIANG Member of CAS, Research Center for Eco-Environmental Sciences, CAS
Weihong TAN Member of CAS, Hangzhou Institute of Medicine (HIM), Chinese Academy of Sciences
Maili LIU Member of CAS, Innovation Academy for Precision Measurement Science and Technology, CAS
Xuemin ZHANG Member of CAS, Academy of Military Medical Sciences
Jinghong LI Member of CAS, Tsinghua University

Secretary General

Xinrong ZHANG Professor, Tsinghua University

Vice Secretary General (in parallel session order)

Xiaodong HAN Professor, Beijing University of Technology/Southern University of Science and Technology (Session A)
Hailin WANG Professor, Research Center for Eco-Environmental Sciences, CAS (Session B)
Yan HE Professor, Tsinghua University (Session C)
Lihua ZHANG Professor, Dalian Institute of Chemical Physics, CAS (Session D)
Shenlin WANG Professor, East China University of Science and Technology (Session E)
Shaojun GUO Professor, Peking University (Session F)
Lei GUO Professor, Academy of Military Medical Sciences (Session G)
Qian LIU Professor, Research Center for Eco-Environmental Sciences, CAS (Session H)
Hongmei LI Professor, National Institute of Metrology, China (Session I)
Guangtao YAN Professor, Chinese PLA General Hospital (Session J)
Jinming LIN Professor, Tsinghua University (Session K)

Committee Members (in alphabetical order)

Zeper ABLIZ Professor, Minzu University of China
Christian AMATORE Professor, Ecole Normale Supérieure / Xiamen University
Zhifang CHAI Member of CAS, Institute of High Energy Physics, CAS
Michael T. BOWERS Professor, University of California-Santa Barbara
Yong CAI Professor, Florida International University
Zongwei CAI Professor, Hong Kong Baptist University
Bin CAO Professor, China-Japan Friendship Hospital
Serge COSNIER Professor, Grenoble University
Derek CRASTON Doctor, Laboratory of the Government Chemist
Norman J. DOVICH Professor, University of Notre Dame
Andrew EWING Professor, University of Gothenburg
Chunhai FAN Member of CAS, Shanghai Jiao Tong University
Qun FANG Professor, Zhejiang University
Xiang FANG Professor, National Institute of Metrology, China

BCEIA 2023 ACADEMIC COMMITTEE

Ning GAO Professor, Peking University
X. Chris LE Professor, University of Alberta
Chenzhong LI Professor, The Chinese University of Hong Kong, Shenzhen
Liang LI Professor, University of Alberta
Yingfu LI Professor, McMaster University
Huwei LIU Professor, Peking University
Lanqun MAO Professor, Beijing Normal University
Myeong Hee MOON Professor, Yonsei University
K.W.Michael SIU Professor, University of Windsor
Jonathan V. SWEEDLER Professor, University of Illinois Urbana-Champaign
Benzhong TANG Member of CAS, Hong Kong University of Science & Technology
Jianhua WANG Professor, Northeastern University
Yinsheng WANG Professor, University of California, Riverside
Young WANG Doctor, North American Chinese Clinical Chemists Association
Robert WIELGOSZ Doctor, Bureau International des Poids et Mesures (BIPM)
Jianwei XIE Professor, Academy of Military Medical Sciences
Xiaomei YAN Professor, Xiamen University
Daiwen YANG Professor, National University of Singapore
Xiurong YANG Member of CAS, Changchun Institute of Applied Chemistry, CAS
Yoshinobu BABA Professor, Nagoya University
Rong YU Professor, Tsinghua University
Renato ZENOBI Professor, Xiamen University /ETH Zurich
Feng ZHANG Professor, Chinese Academy of Inspection and Quarantine
Xian-En ZHANG Professor, Institute of Biophysics, CAS
Xueji ZHANG Professor, Shenzhen University
Yuliang ZHAO Member of CAS, National Center for Nanoscience and Technology
Xin ZHOU Professor, Innovation Academy for Precision Measurement Science and Technology , CAS

Advisory Committee (in alphabetical order)

Hongyuan CHEN Member of CAS, Nanjing University
Benli HUANG Member of CAS, Xiamen University
Guofan JIN Member of CAE, Tsinghua University
Dunyi LIU Professor, Institute of Geology, Chinese Academy of Geological Sciences
Yunyu SHI Member of CAS, University of Science and Technology of China
Erkang WANG Member of CAS, Changchun Institute of Applied Chemistry, CAS
Haizhou WANG Member of CAE, China Iron and Steel Research Institute Group
Fusheng WEI Member of CAE, China National Environmental Monitoring Centre
Junen YAO Member of CAE, Beihang University
Hengqiang YE Member of CAS, Institute of Metal Research, CAS
Zhaohui YE Member of CAS, Innovation Academy for Precision Measurement Science and Technology, CAS
Jing ZHU Member of CAS, Tsinghua University

PLENARY SESSION

Date: September 6th, 2023

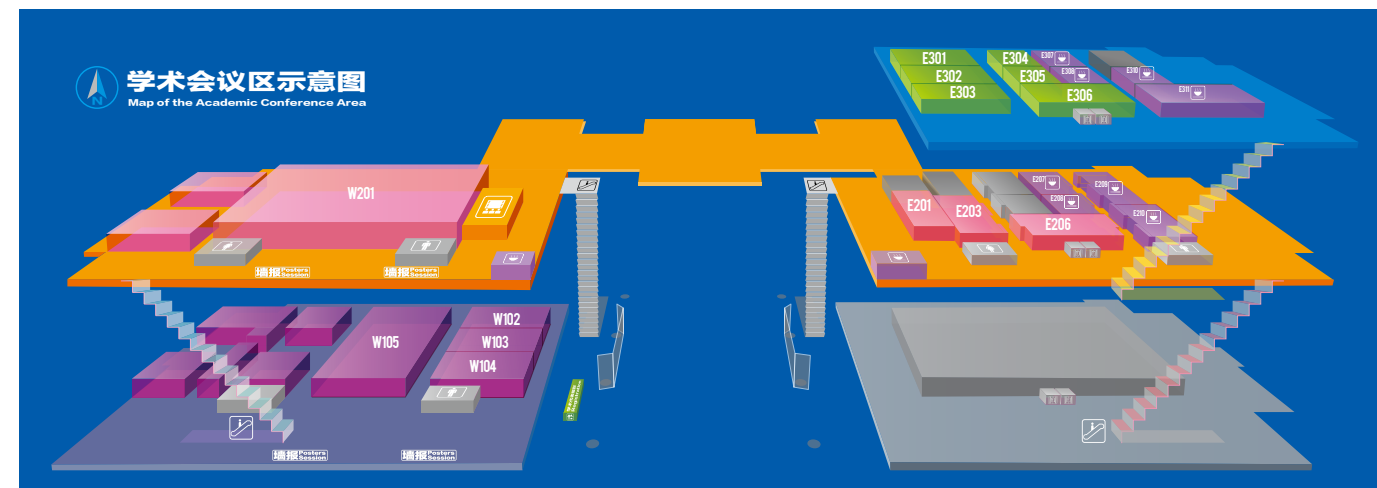
Time: 9:30-12:00 / 13:30-17:00

Location: Room W201, Academic Conference Area

China International Exhibition Center(Shunyi Hall),

Beijing, China

Schedule of Plenary Session			
AM			
Chair / Prof. Weihong TAN			
9:30-9:40	Opening Remarks by BCEIA2023 Chairman, Prof. Guibin JIANG Introductory Remarks by BCEIA2023 Academic Committee Chairman, Prof. Yukui ZHANG		
Time	No.	Title	Lecturer
9:40-10:15	1	On the Pairing Mechanism of High Temperature Superconductivity	Prof. Qikun XUE Academician, Chinese Academy of Sciences Southern University of Science and Technology
10:15-10:50	2	Linkage between the Environment and Health: Impact of Environmental Factors on Individual's Health and Expressed in Changes in their Proteome	Prof. K.W.Michael SIU University of Windsor
10:50-11:00	Coffee Break		
Chair / Prof. Zhifang CHAI			
11:00-11:35	3	Miniature Multi-photon Microscopy Ushering in New Paradigms in Brain Science Research	Prof. Heping (Peace) CHENG Academician, Chinese Academy of Sciences National Biomedical Imaging Center, College of Future Technology, Peking University
11:35-12:10	4	Preparation of Novel Microspheres for Protein / Vaccine Separation Application	Prof. Guanghui MA Academician, Chinese Academy of Sciences Institute of Process Engineering, CAS
PM			
Chair / Prof. Maili LIU			
13:30-14:10	5	Molecular Spectroscopy in Precision Medicine	Prof. Jeremy K NICHOLSON Murdoch University and Imperial College London
14:10-14:45	6	Nucleic Acids-based Information Materials	Prof. Chunhai FAN Academician, Chinese Academy of Sciences Shanghai Jiao Tong University
14:45-15:20	7	Source Tracing of Pathogens: from Phylogenomics to Trace-element Analysis	Prof. Ruifu YANG Academy of Military Medical Sciences, China
15:20-15:30	Coffee Break		
Chair / Prof. Jinghong LI			
15:30-16:05	8	Analytical Strategies to Assess PFAS Removal and Lifecycle Fate during Adsorption or Transformative Water Treatment Processes	Prof. Paul WESTERHOFF Regent Professor & Fulton Chair of Environmental Engineering Arizona State University
16:05-16:40	9	Certified Reference Materials for a Global Greenhouse Gas Monitoring Infrastructure	Dr. Robert WIELGOSZ International Bureau of Weights and Measures (BIPM)
16:40-17:15	10	Development of a New Ionization Source for Single Cell Metabolome Analysis	Prof. Oliver J. SCHMITZ University of Duisburg-Essen, Germany
BCEIA Live Streaming Channel	11	False positive, negative, and unexpected Drug Testing Results in the Urine Toxicology Laboratory	Mr. Paul BREITENBECHER CEO Breiten Associates LLC



大会报告 语言: 英文 会议室: W-201 Plenary Lectures (Language: English)	分会报告 (语言: 英文) Parallel Sessions Directory (Language: English)
后疫情·大健康论坛 (9:00–12:00) 语言: 中文 会议室: W-201 Post-Pandemic Big Health Development Forum (9:00–12:00)	电子显微学与材料科学 会议室: E-302 Electron Microscopy and Materials Sciences 生命科学中的分析技术 会议室: E-201 Analytical Techniques in Life Sciences
双碳战略下的可持续科学与技术论坛(13:30–17:00) 语言: 中文 会议室: W-201 Sustainable Science and Technology under the “Dual Carbon” Strategy Forum (13:30–17:00)	质谱学 会议室: W-105 Mass Spectrometry 环境分析 会议室: W-103 Environmental Analysis
第四届食品安全风险监控学术交流大会 语言: 中文 会议室: W-201 The 4th Food Safety Risk Monitoring Symposium	光谱学 会议室: E-206 Optical Spectroscopy 化学计量与标准物质 会议室: E-203 Chemical Metrology & Reference Materials
学术代表报到 Registration	色谱学 会议室: W-104 Chromatography 标记免疫分析 会议室: E-301 Labeled Immunoassay
专题论坛及同期会议 Thematic Forums & Concurrent Meetings	磁共振波谱学 会议室: E-303 Magnetic Resonance Spectroscopy 微全分析 会议室: E-306 Micro Total Analysis
	电分析化学 会议室: W-102 Electroanalytical Chemistry 海报 Posters Session

Plenary Lecturer Keynote Speakers Biography & Abstract

(in order of the schedule)

Prof. Qikun XUE



Academician, Chinese Academy of Sciences

Southern University of Science and Technology



XUE Qikun obtained his BSc in Shandong University in 1984, and PhD in condensed matter physics from Institute of Physics, the Chinese Academy of Sciences (CAS) in 1994. From 1994 to 1999, he worked as a Research Associate at IMR, Tohoku University, Japan and a visiting Assistant Professor at Department of Physics, North Carolina State University, USA. He became a professor at Institute of Physics, CAS in 1999. He was elected into The Chinese Academy of Sciences in 2005. Since then, he has been a distinguished professor at Department of Physics, Tsinghua University. From 2010 to 2013, he served as Chair of Department of Physics and Dean of School of Sciences prior to being Vice President for Research of Tsinghua University from 2013 to 2020. Since 2017, he has been Director of Beijing Academy of Quantum Information Sciences. He has been President of Southern University of Science and Technology since November 2020. He was elected as a Fellow of American Physical Society in 2016. He won the TWAS Prize in Physics in 2010, the Future Science Prize for Physical Sciences in 2016, State Natural Science Award (the First Prize) in 2018, The Fritz London Memorial Prize in

2020, Outstanding Contribution Zhongguancun Award, Beijing Science and technology Award in 2020, Fudan-Zhongqzhi Science Award in 2020.

His research interests include scanning tunneling microscopy/spectroscopy, molecular beam epitaxy, low-dimensional and interface-related superconductivity, topological insulators, and quantum size effects in various low-dimensional structures. He has authored/coauthored ~500 papers with a citation of ~28000 times. He has presented 180 plus invited/keynote/plenary talks at international meetings/conferences. Currently, he is the Associate Editors-in-Chief of National Science Review, the Editors-in-Chief of Surface Review & Letters, and on the Editorial Board of Applied Physics Letters, Journal of Applied Physics, AIP Advances, Surface Science Reports and Nano Letters.

On the Pairing Mechanism of High Temperature Superconductivity

Prof. K.W.Michael SIU



University of Windsor

Siu is Professor of Chemistry and Biochemistry at the University of Windsor. Prior to his appointment at Windsor, Siu was Distinguished Research Professor (2007 – 2014) and NSERC / SCIEX Senior Industrial Research Chair in Analytical Mass Spectrometry (1998 – 2012) at York University. Siu has published > 290 papers (Google Scholar, July 18, 2023: h-index, 68; i10-index, 234; total citations, 14,306; # papers cited $\geq$ 100 times, 40) and has given > 500 presentations, of which > 50% are in the invited, keynote and plenary category. He is a Fellow of the Chemical Institute of Canada and the Royal Society of Canada. Siu has received multiple awards, as well as funding and grants from many agencies and organizations totalling > \$ 22 million. The oral cancer biomarkers that Siu and his collaborators and identified have now been commercialized and offered as a prognostic test (Stratocyte: www.proteocyte.com) for lesions that may transform into cancers.

Linkage between the Environment and Health: Impact of Environmental Factors on Individual's Health and Expressed in Changes in their Proteome

According to the World Health Organization (WHO), over 90% of cancer incidence is closely associated with environmental pollution. Carcinogenic transformation is typically a multistep process that sees cells progress from normal, to pre-cancerous, and finally to the cancerous stage. This progression reflects molecular changes within the cells as a result of interaction between genes and pollutants. Common viruses, including the Epstein-Barr Virus (EBV) and the human papillomavirus (HPV), are environmental factors that impact upon specific cancer incidence. It is noteworthy that incidence of cancer in the world exhibits national and regional differences that are likely to reflect the interplay between genetic and environmental factors. In the U.S., oral cancer is by far the most prominent head and neck cancer; nasopharyngeal cancer (NPC)'s incidence is only 8% of that of oral cancer. By contrast, in China NPC outpaces oral cancer by 200%. Even within China, NPC is largely concentrated in the southeastern regions, including Guangdong and Hong Kong. This highly regional distribution of NPC incidence emphasizes the importance of environmental contribution. This contribution and impact to the proteome will be explored and discussed.

Prof. Heping (Peace) CHENG



Academician, Chinese Academy of Sciences
National Biomedical Imaging Center, College of
Future Technology, Peking University

Dr. Heping (Peace) Cheng received his bachelor's and master's degrees in applied mathematics & mechanics and biomedical engineering, with physiology as his minor, from Peking University, China. Upon graduation, he served as a junior faculty member in the Department of Electrical Engineering at the same university before earning his Ph.D. degree in physiology in 1995 from the University of Maryland at Baltimore. He then joined the NIH Intramural Research Program as a senior staff fellow, was selected as a tenure-track investigator in 1998 and became the head of the Ca²⁺ Signaling Section in the Laboratory of Cardiovascular Science, National Institute of Aging, NIH. He was promoted to senior investigator in 2004. He is now a senior investigator heading the Laboratory of Ca²⁺ Signaling & Mitochondrial Biomedicine in the Institute of Molecular Medicine at Peking University. He was elected to the Chinese Academy of Sciences in 2013.

Co-discovering "Ca²⁺ sparks" in 1993 and mitochondrial "superoxide flashes" in 2008, he strives to resolve elemental physiological signals in the pursuit of principles of cell signaling. Currently he is engaged in developing novel imaging technology for reverse engineering of brain information processing.

Miniature Multi-photon Microscopy Ushering in New Paradigms in Brain Science Research

As brains science flourishes in the new millennium, there are urgent needs for innovative technology and methodology to address the formidable task of reading, deciphering, intervening, and imitating the natural brain. With team efforts, we developed a 2.2-gram miniature two-photon microscope than enabled the first recording of neuronal and synaptic Ca²⁺ activities in mice engaging in behaviors of free movement. By incorporating a plug-in fast electrically tunable lens module, this system realized a volumetric imaging of ~1,000 neurons in the cortex. More recently, we extended this serial work and invented a 2.17-gram miniature three-photon microscope capable of imaging neuronal activity throughout the entire cortex and dorsal hippocampal CA1 up to 1.2 mm depth. A few novel applications leveraging on this powerful emerging technology will be discussed. We anticipate these advances would empower brain scientists to explore new research paradigms in freely behaving animals.

Prof. Guanghui MA



Academician, Chinese Academy of Sciences
Institute of Process Engineering, CAS

Prof. Guanghui Ma is serving as Director of the State Key Laboratory of Biochemical Engineering (SKLBCE), Institute of Process Engineering (IPE). She is an academician of Chinese Academy of Sciences and AIMBE (the American Institute for Medical and Biological Engineering) Fellow. Her research interests focus on the preparation of uniform microspheres and microcapsules and their applications in biochemical engineering and biomedicine engineering, such as biochemical separation media, drug carriers, vaccine adjuvants (vaccine delivery systems), microcarriers for cell culture, and enzyme immobilization carriers. She has published over 500 papers, including Nat. Mater., Sci. Transl. Med., Nat. Nanotechnol., Nat. Biomed. Eng., etc. She has more than 90 patents authorized, the technology and products have been commercialized in companies, and have been used in more than 500 affiliations in the world. She has been awarded "National Invention Award (the second class).

Preparation of Novel Microspheres for Protein / Vaccine Separation Application

Polysaccharide particles such like agarose particles have been widely used in protein separation and purification as chromatographic packing materials by biological scientists and in industry. However, the limitation of conventional agarose particles is that the separation resolution is limited due to their broad size distribution. Furthermore, the particles with large size are usually used for industrial separation and purification to avoid the increase of back-pressure, which also limit the separation resolution. On the other hand, the particulate vaccine such like virus-like particle (VLP) has attracted more and more attention, conventional agarose particles with small pore size not only limited the adsorption of VLP, but also enhanced the disassociation of VLP, resulting very low activity recovery of VLP.

We have developed a novel membrane process to prepare uniform agarose particle. By this technique we can control the CV (coefficient of variation) value which representing the size distribution around 15%, and we can prepare small uniform particles with high agarose concentration. Therefore, we can use small particles instead of large particles, and increase the separation resolution and flow rate of chromatography.

We have developed a new process to prepare giga-porous particle with pore size controllable between 100nm to 500 nm, and we found that it not only increased the loading amount of VLP, but also avoided the disassociation of VLP. This was because large pore size weakened the multi-site interaction between VLP and pore. This novel particle has been used for production of particulate vaccine instead of ultra-high speed centrifugation technique, much higher recovery was achieved.

Prof. Jeremy K NICHOLSON



Murdoch University and Imperial College London

A pioneer in biological NMR spectroscopy, metabolic phenotyping and precision systems medicine, Nicholson's major research focus is on the development of diagnostic and prognostic molecular phenotyping technologies as applied to personalised healthcare, metabolic disease, and population phenotyping. Professor Nicholson obtained his PhD from King's College London in 1980. After a series of academic appointments in Pharmacology and Chemistry at Birkbeck and University College London, he was made full Professor of Biological Chemistry in 1992. He was appointed as Professor and Head of Biological Chemistry at Imperial College London in 1998, Head the Department of Surgery and Cancer (2009-2018), Director for the Centre for Gut and Digestive Health, and Director of the MRC-NIHR National Phenome Centre (2012-2018), Emeritus Professor (2018-to date). He became the Pro-Vice Chancellor for Health Sciences at Murdoch University and Director of the Australian National Phenome Centre in Perth, Western Australia in 2019. Since 2020 he has been leading an international group working on the metabolic sequelae and long-term complications of COVID-19. He is a "Highly-Cited" Researcher in Pharmacology and Toxicology and Cross-Field Science 2013-2023 (Clarivate H index = 141, Google H = 164, 116K citations) and has received various research prizes including: The Royal Society of Chemistry (RSC) Silver (1992) and Gold (1997) Medals for Analytical Science and Analytical Chemistry; The UK Chromatographic Society Jubilee Silver Medal (1994); Pfizer International Prize for Chemical and Medicinal Technology (2002); RSC medal for Chemical Biology (2003); RSC Interdisciplinary Prize (2008); Pfizer Global Research Prize for Chemistry (2006) and the Semmelweis-Budapest Prize for Biomedicine (2010). He holds multiple visiting, and Honorary Professorships including Fudan University, Shanghai, The Mayo Clinic, University of New South Wales, Khon Kaen University, Thailand, Shanghai Jiao Tong University, Zhejiang University, University of Western Australia, Chinese Academy of Sciences, Wuhan, and Dalian. He was elected, Fellow of The UK Academy of Medical Sciences in 2010; Honorary Lifetime Fellow of the International Metabolomics Society in 2012; Honorary Lifetime Member of the US Society of Toxicology in 2013; Albert Einstein Honorary Professor of the Chinese Academy of Sciences in 2014; Elected Honorary Fellow of the Royal College of Physicians (London, 2018); Honorary Doctor of Science, Honoris Causa (Hong Kong Baptist University, 2020). His research group currently specialises in the discovery and development of immuno-metabolic models of inflammatory diseases and their translational application in the clinic.

Molecular Spectroscopy in Precision Medicine

Phenomics is the systematic study of the continuum of gene-environment interactions throughout life and the measurement of the emergent physical and chemical properties that result from these interactions and define individual and population phenotypes in health and disease. In molecular phenomics we are concerned with the chemical and biochemical signatures (metabolites, proteins, transcripts etc. of cells and biofluids and how these change in characteristic ways during the onset, development, and recovery from disease. Advanced technologies such as LC-MS and NMR spectroscopy provide convenient multivariate signatures for a wide variety of metabolites and are a rich source of molecular phenomic data. I will illustrate the integrative use of multiple phenomic technologies for studying the COVID-19 patient journey using collections of samples from multiple populations round the world and demonstrate a translational analytical strategy for population level monitoring and assessment of PACS and functional biochemical recovery from the disease together with new diagnostic models and markers for clinical deployment. The analytical and informatic strategies developed and employed here are also suitable to help in future pandemic preparedness in world that is likely to be dominated by novel emergent zoonotic threats for decades to come.

Prof. Chunhai FAN



Academician, Chinese Academy of Sciences
Shanghai Jiao Tong University

Chunhai Fan is a K. C. Wong Chair Professor and Dean in the School of Chemistry and Chemical Engineering at Shanghai Jiao Tong University (SJTU), and Executive Dean of the National Center for Translational Medicine. He is a member of the Chinese Academy of Sciences (CAS academician), a member of the

Chinese Academy of Medical Sciences, a fellow of American Association for the Advancement of Science (AAAS), Royal Society of Chemistry (FRSC), American Institute of Medical and biological Engineering (AIMBE) and International Society of Electrochemistry (ISE). He is an Associate Editor of JACS-Au, and serves as a Co-Chair on the editorial board of ChemPlusChem and an editorial board member of over 10 journals including Angewadte Chemie, Accounts of Chemical Research and ACS Nano. Dr. Fan has published more than 600 papers in peer-reviewed journals (with ~50,000 citations and H-index >120), and been recognized as Highly Cited Researchers by Clarivate Analytics since 2014.

Nucleic Acids-based Information Materials

DNA is well known to be a genetic molecule with double helix structures. DNA is evolved in nature to follow a simple and precise Watson-Crick pairing rule to encode enormous genetic information in living things. Nevertheless, DNA is not only a carrier of genetic information, but can be regarded a type of molecular information materials. DNA molecules have been exploited as a building block to encode various types of structures that are not present in nature. More recent advances show that nucleic acids-based information materials are increasingly being used for applications including bioimaging, drug delivery and micro-nano fabrication. In this talk I will introduce the use of nucleic acids-based information materials for developing molecular machines and data storage.

Prof. Ruifu YANG



Academy of Military Medical Sciences, China

Ruifu Yang, Ph.D., professor from Beijing Institute of Microbiology and Epidemiology. He focused on bacterial genomics, evolution, source-tracing and pathogenesis; human microbiota and health. He has published more than 300 peer-review papers in different journals, including NEJM, Science, Cell

Metabolism, Nature Genetics, Nature Communications, PNAS etc., with citation of more than 27,000 and h-index of 73. He is now the director of subbranch of Probiotics, Prebiotics and Health of Chinese Nutrition Society.

Source Tracing of Pathogens: from Phylogenomics to Trace-element Analysis

In recent years, new outbreaks of sudden epidemics have continuously emerged, and there have been occasional incidents of biological safety accidents and bioterrorism events. The demand for accurate source-tracing of pathogens has become increasingly urgent. Especially after the bioterrorism incident of "white powder" letter in the United States, it has given birth to the new discipline of microbial forensics. Currently, the source-tracing of pathogens largely relies on genome sequencing and bioinformatics analysis. However, for the traceability of biological accidents or bioterrorist attacks, other trace components in the biological agents need to be analyzed, such as the components of the culture medium, surface modifications of the biological agents (such as silicon molecules), stable isotopes, etc. The traceability process, from sampling and analysis to reporting, must comply with legal procedures for the source-tracing results to have legal support. This report aims to discuss these analysis techniques and share research progress in source-tracing analysis.

Prof. Paul WESTERHOFF



Regent Professor & Fulton Chair of Environmental Engineering
Arizona State University

Dr. Paul Westerhoff is a Regents Professor and Fulton Chair of Environmental Engineering in the School of Sustainable Engineering and the Built Environment at Arizona State University. Since joining ASU he has held various administrative positions. After serving as the Civil and Environmental Engineering Department Chair he was the Founding Director for the School of Sustainable Engineering and the Built Environment, and served later as Associate & Vice Dean of Research in Engineering and ASU Vice Provost for Academic Programming. Dr. Westerhoff is the Deputy Director of a NSF ERC for Nanotechnology Enabled Water Treatment and co-Deputy Director of the NSF STC Science and Technologies for Phosphorus Sustainability Center. His research group addresses questions related to What pollutants exist in the environment? If they occur, do they matter? If they occur and matter, what do we do to address them? with a focus on pollutants in natural and engineered water systems. He has over 400 journal publications (H-index>100) and multiple patents. He is the recipient of the 2020 A.P. Black award, 2019 NWRI Clarke Prize, 2015 ASU Outstanding Doctoral Mentor, 2013 ARCADIS/AEESP Frontier in Research Award, and 2006 Paul L. Busch Award. He was elected to the National Academy of Engineering in 2023.

Analytical Strategies to Assess PFAS Removal and Lifecycle Fate during Adsorption or Transformative Water Treatment Processes

Per- and polyfluoroalkyl substances (PFAS) occur in ground and surface water sources across the globe, and proposed drinking water regulations are driving PFAS treatment technology development and implementation. This presentation will first address current treatment technologies, which utilize adsorption (liquid to solid phase transformation), membranes (liquid to liquid separations) or transformative (oxidation or reduction) processes. Examples will be provided how treatment process efficiencies for "real waters" and how the processes challenge analytical methods. Second, the presentation addresses end-of-life for residuals (e.g., activated carbon) that contains PFAS, which will require incineration. Tracking PFAS during incineration requires unique analytical approaches to track fluorinated aqueous, gaseous and solid-phase species. Overall, the presentation will demonstrate how to match PFAS analytical strategies to PFAS drinking water treatment processes.

Dr. Robert WIELGOSZ



International Bureau of Weights and Measures (BIPM)

Dr Wielgosz is the Director of the Chemistry Department of the International Bureau of Weights and Measures (BIPM) based in France, with its gas metrology laboratory coordinating international comparisons for air quality and greenhouse gas standards. The comparisons form part of an international program supporting the provision

of standards to atmospheric monitoring networks worldwide from National Metrology and Designated Institutes (NMIs). He is a member of the CIPM Sector Task Group on Climate Change and Environment, and Steering Committee Chair of the recent BIPM-WMO Metrology for Climate Action Workshop. He has contributed to over sixty publications related to measurement science including WMO guidelines on atmospheric gas composition measurement. He holds an M.A. in the Natural Sciences from Emmanuel College, Cambridge University (UK), a Ph.D. from the University of Bath (UK) and completed his Royal Society European Exchange Fellowship at the University of Ulm (Germany).

Certified Reference Materials for a Global Greenhouse Gas Monitoring Infrastructure

Understanding sources and sinks of Greenhouse Gases (GHG) and the impact of policies to mitigate emissions provides a key tool for action against Climate Change. GHG emissions and uptake can be determined through measurement systems that include in situ measurement of GHG concentration at varying levels of spatial distribution. These measurements together with wind-speed measurements and numerical weather prediction and dispersion models can be used to determine spatially and time resolved GHG emissions and sinks. Maintaining a global system of such measurements, as envisaged, for example, by the WMO initiative on a coordinated global Greenhouse Gas Monitoring Infrastructure, requires close attention to quality assurance and equivalence of measurements from different sites. Significant emissions may lead to small changes in GHG concentration, requiring highly consistent calibration standards at different measurement sites. The presentation will cover the establishment and characterization of CO₂ in air standards for the measurements of concentration as well as isotope ratio, for source apportionment, that are required in GHG measurement networks. Generating the highest precision measurements of CO₂ in air requires adopting metrological traceability to defined sets of primary standards, the so-called scale approach. The conversion of CO₂ in air amount fraction values from one scale to another requires the scale relationships to be well known, noting that the requirement for internal consistency of standards within a scale, such as the WMO-CO₂-X2019 scale, is at the 0.01 μmol/mol level, and consistency between different scales should not exceed the 0.02 μmol/mol level [1]. Certified reference materials that are needed to calibrate both in-situ based optical/laser based GHG amount fraction and isotope ratio measurements as well as mass spectrometric laboratory-based measurements of isotope ratio will be described, as well as on-going comparisons to verify their equivalence. These comparisons are supporting National Metrology Institutes and the WMO Central Calibration Laboratory in ensuring equivalence of their standards and the ability for measurement sites to meet their data quality objectives.

[1] CCQM-GAWG Task Group on GHG Scale Comparisons (CCQM-GAWG-TG-GHG) <https://www.bipm.org/en/committees/cc/ccqm/wg/ccqm-gawg-tg-ghg>



Prof. Oliver J. SCHMITZ



University of Duisburg-Essen, Germany

In 2009 Oliver J. Schmitz got a full professor in Analytical Chemistry at the University of Wuppertal (BUW). Between 2010 and 2012 he was the chair of the Analytical Chemistry department at BUW. Since 2013, Schmitz has been a full professor at the University of Duisburg-Essen and heads the Institute for Applied Analytical Chemistry.

2009 he cofounded the company iGenTraX UG which develops new ion sources and units to couple separation techniques with mass spectrometers. In 2011 he was one of the founding directors of the Interdisciplinary Centre for Pure and Applied Mass Spectrometry, University of Wuppertal. Since 2013, Schmitz is also one of the chairmen of the analytica conferences in China and Vietnam and in 2018, together with Agilent Technologies, he founded the Teaching and Research Center for Separation (TRC).

The research fields of Prof. Schmitz are the development of ion sources, use and optimization of multi-dimensional LC and GC, ion mobility-mass spectrometry and coupling analytical techniques with mass spectrometers. Furthermore, he is working about origin of life and metabolomics. Prof. Schmitz was awarded the scholar-in-training award of the American Association for Cancer Research in 2003, the Gerhard-Hesse Prize for chromatography in 2013 and in the same year the Fresenius Lecturer. 2018 he was awarded with the Waksmundzki Medal Award for Analytical Chemistry of the Polish Academy of Sciences.

Development of a New Ionization Source for Single Cell Metabolome Analysis

Although the unrevealing of cellular heterogeneity is limiting for the understanding of complex processes in cancer research as e.g. its influence on the process of metastasising, current research still depends on bulk analysis technologies as no reliable method could be established for real single cell metabolome analysis yet.

The necessary analytical requirements that such a method for single cell metabolome analysis needs in terms of detection limit, sample amount and specificity will be discussed in detail in this presentation. Also, still unsolved problems will be addressed and put up for discussion.

Subsequently, our current work on an ion source, which should be able to destroy the cell and thus release the analytes and ionize them by means of Dielectric Barrier Discharge, will be presented. The current status of developments from the literature and from us will be briefly presented in this talk.

Mr. Paul BREITENBECHER



CEO

Breiten Associates LLC

Paul Breitenbecher received his BS from Providence College in Providence Rhode Island. He is both CC and SC ASCP certified. He graduated from Endicott College with his MBA in 2011. He is a Green Belt Six Sigma company trained and certified. He has over 30 years of Laboratory experience. With at least 20 years of Laboratory management and quality experience in small to large reference laboratories.

He taught Advanced Clinical Chemistry at Northeastern University in Boston Mass for 5 years and served as clinical laboratory instructor for 10 years for several MT schools in the Mass and RI area.

In 2009 he was asked to set up the CLIA and CAP lab Molecular Profile Laboratory at Novartis NIBR for clinical trials for triple negative breast cancer.

In 2013 he was asked to set up two laboratories for Partners in Health in the newly built Mirebalais Hospital in Haiti.

In 2013 he started his own consulting company setting up CROs, preparing and obtaining CLIA and CAP certifications and New York state permits, expert witness for medical legal, designing electronic quality systems, and overseeing clinical trial testing as the Quality Manager for several GLP laboratories.

In 2014 to 2015 he served as a Quality Consultant at Calloway Laboratory which was the third largest urine drug testing laboratory in the US.

In 2019 until the present, he is the Technical Supervisor for New Horizons Medical PC Laboratory overseeing their urine screening and confirmation testing for pain clinic and substance abuse patients.

His consulting has included Foundation Medicine, Harvard University, Charles River Labs, and several other laboratories both in the US and internationally.

False positive, negative, and unexpected Drug Testing Results in the Urine Toxicology Laboratory

In 1995 I co-authored a short article entitled "False-positive Immunoassay Results for Urine Benzodiazepine in Patients Receiving Oxaprozin (Daypro)". This was published when rapid urine drug screening test methods were first becoming available. The laboratory community was starting to realize that not all assays can be tested for all of the thousands of drugs, substances or endogenous compounds that may potentially cause result errors.

There are false positive, false negative and unexpected patient urine drug test results that occur in the Urine Toxicology laboratory.

How does one research these results and assist the clinician in helping to assess these results to treat their patient?

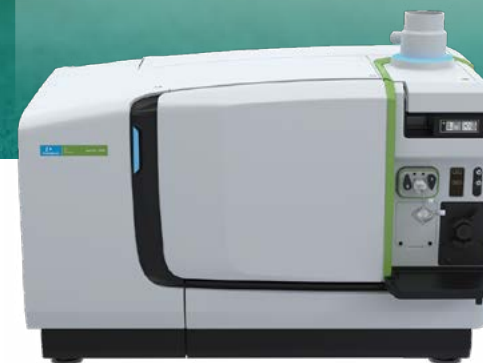
Unexpected urine drug test results can occur during any phase of the testing process; however, the most common usual results occur during the pre-analytical or patient collection phase. During this phase patients can provide "fake" urine, take substances that can affect the testing method, or they can adulterate/dilute their urine specimen.

Depending on the screening test method used, the test method can be impacted by a variety of substances that can produce either false negative, false positive or usual results. Screening results can also be different than the confirmation results making interpretation of patient results even more confusing.

During this presentation we will review a basic screening test method and confirmation method. And discuss some of these unexpected urine drug test results.

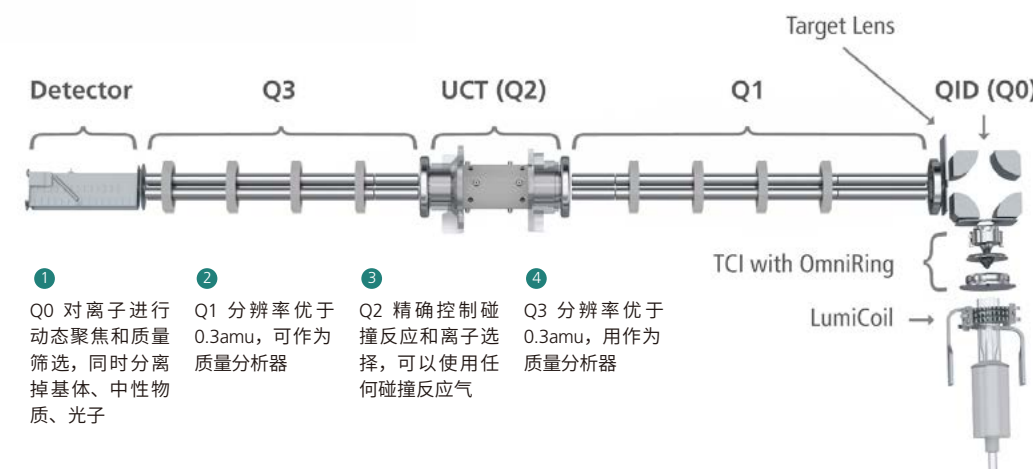


化学高分辨 多重四极杆 ICP-MS



NexION® 5000 ICP-MS

四组四极杆质谱平台
层层筛选实现化学高分辨



- 免维护等离子体技术, 能量效率高, 无需水冷, 耐受各种基体
- 第二代三锥接口与四极杆离子偏转技术, 高效离子提取, 保证出色的基体耐受性以及仪器长时间运行的稳定性
- 第三代化学高分辨通用池, 性能超越高分辨ICP-MS和传统的三重四极杆技术



提交问卷,
欢迎来珀金埃尔默展台
领取精美礼品!

展位号: E1馆 255

珀金埃尔默企业管理(上海)有限公司 欢迎咨询: 800 820 5046 / 400 820 5046

欲了解更多信息, 请登录 www.perkinelmer.com.cn

PerkinElmer
For the Better

FOR A GREEN & HEALTHY FUTURE
生命 生活 健康 面向绿色未来
BCEIA 2023
THE 20th BEIJING CONFERENCE AND EXHIBITION ON INSTRUMENTAL ANALYSIS
始于1985

2023 2021 2019 2017 2015 2013 2011 2009 2007 2005 2003 2001 1999 1997 1995 1993 1991 1989 1987 1985

后疫情·大健康论坛

Post-Pandemic Big Health Development Forum

分析科学 创造未来
ANALYTICAL SCIENCE CREATES FUTURE
中国分析测试协会
China Association for Instrumental Analysis (CAIA)

时间: 9月7日 9:00—12:00
地点: 学术会议区 W201 会议室
语言: 中文

围绕“‘后疫情’时代大健康发展”这一主题，以前瞻性的视角，从不同层面对当下相关的热点问题、理论研究、前沿技术等展开交流。论坛将邀请相关领导解读健康管理等宏观政策，行业内知名专家分享肿瘤、病毒对抗等前沿进展以及癌症早期筛查与诊断、标志物检测等内容，炙手可热的 POCT、临床质谱、生物芯片等相关仪器应用也将进行现场展示，政、产、学、研、用相结合，将开启一场思维碰撞、智慧汇聚的大健康学术、产业交流的盛宴。



阚海东 教授
复旦大学公共卫生学院



宋海波 教授 / 主任技师
中国科学院化学研究所



康熙雄 教授 / 主任医师
首都医科大学



叶棋浓 研究员
军事科学院军事医学研究院



邱玲 教授 / 研究员
北京协和医院

FOR A GREEN & HEALTHY FUTURE
生命 生活 健康 面向绿色未来
BCEIA 2023
THE 20th BEIJING CONFERENCE AND EXHIBITION ON INSTRUMENTAL ANALYSIS
始于1985

2023 2021 2019 2017 2015 2013 2011 2009 2007 2005 2003 2001 1999 1997 1995 1993 1991 1989 1987 1985

双碳战略下的可持续科学与技术论坛

Sustainable Science and Technology under the "Dual Carbon" Strategy Forum

分析科学 创造未来
ANALYTICAL SCIENCE CREATES FUTURE
中国分析测试协会
China Association for Instrumental Analysis (CAIA)

时间: 9月7日 13:30—17:00
地点: 学术会议区 W201 会议室
语言: 中文

分析测试技术在揭示新能源材料结构、组成、性能之间的关联以及助力国家节能减排、实现可持续发展过程中发挥着核心作用。为促进新能源科学与技术发展，推进国家“双碳”目标的实施，为能源、环保、材料、化学和纳米等相关行业科技工作者搭建交流合作的平台。BCEIA2023 将隆重举行双碳战略下的可持续科学与技术论坛，学科交叉，创新融合，协同发展，聚焦核心技术，瞄准产业前沿，论坛热忱邀请各界人士参会交流，诚挚欢迎相关企业展示技术成果！



江桂斌 院士
中国科学院生态环境研究中心



李永舫 院士
中国科学院化学研究所



陈军 院士
南开大学



徐春明 院士
中国石油大学



吴骊珠 院士
中国科学院理化技术研究所

analytikjena
An Endress+Hauser Company
德国耶拿

高灵敏度ICP质谱仪 PlasmaQuant MS



开启ICP-MS领域的新境界

- 业界超高的灵敏度，优异的检出限
- ReflexION离子反射技术
- ADD¹¹ 全数字检测系统，最长的检测器寿命
- ICRC一体化碰撞反应池系统
- 仅需正常耗气量一半的等离子体
- 高解析四极杆
- 开卷式设计
- 超强真空系统，冷启动仅需5分钟

ECO Eco Plasma **ICRC** ICRC **ION** ReflexION **HD** Quadrupole **11** ADD Technology

地址：北京市东城区朝阳门北大街8号富华大厦B座13层
电话：010-65543849/79
E-mail: info@analytik-jena.com.cn

Fax: 010-65543265
中文网站: www.analytik-jena.com.cn
售后服务热线: 400 602 1766

Made in Germany
Technology Quality Innovation
analytikjena

SCHEDULE OF SESSIONS

A
ELECTRON MICROSCOPY AND MATERIALS SCIENCES

CHAIR:
Prof. Xiaodong HAN

ORAL LECTURES
Theme: Microscopy Enlightens New Future

Dates: Sept. 7-8, 2023
Location:
Room E302,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Session 1: TEM Method and Application Chair: Xiaodong HAN		
9:00-9:05		Opening Remarks
9:05-9:30	A2	In situ quantitative environmental TEM tests on hydrogen-dislocation interaction in Al and Fe Zhiwei Shan Xi'an Jiaotong University
9:30-9:55	A3	氮化铝晶格缺陷的结构与发光特性 Chunlin Chen IMR, Shenyang
9:55-10:20	A4	水敏感二维材料的原子结构表征与原位物性研究 Junhao Lin Southern University of Science and Technology
10:20-10:40	A5	In situ characterization portfolio of Gatan and EDAX in both TEM and SEM platform Chang Lu Gatan & EDAX
10:40-10:50		Coffee & Break
Chair: Yu RONG		
10:50-11:15	A6	Methodology developments on in-situ 3D reconstruction of protein structures by cryo-electron microscopy Xinzheng Zhang Institute of Biophysics, Chinese Academy of Sciences
11:15-11:40	A7	Visualizing the assembly of human ribosomes subunit by cryo-EM Ning Gao Peking University
11:40-12:00	A8	原子尺度多场耦合透射电镜原位技术发展及应用 Jixiang Cai
12:00-13:30		Lunch Break / Poster Session
Date : Sep. 07, 2023 Pm (Thursday)		
Session 2 : Structural and Functional Materials Chair: Ning GAO		
13:30-13:55	A9	Characterizing the interlayer interaction of 2D materials by in situ SEM Qing Chen Peking University
13:55-14:20	A10	TEM Studies on Functional Materials Richeng Yu Institute of Physics, CAS
14:20-14:45	A11	难熔金属基功能材料微结构调控及光电性能 Jinshu Wang Beijing University of Technology
14:45-15:10	A12	应变催化：材料、理论与应用探索 Shaojun Guo Peking University
15:10-15:20		Coffee & Break

Chair: Jinshu WANG		
15:20-15:45	A13	Atomic-resolution magnetic imaging Rong Yu Tsinghua University
15:45-16:10	A14	Atomic Scale in-situ (S)TEM on Phase Transition of Oxides Jianbo Wang Wuhan University
16:10-16:35	A15	表面修饰增强光催化性能机制 Wenqing Yao Tsinghua University
16:35-17:00	A16	全解水光催化材料与多功能器件 Xuanhua Li Northwestern Polytechnical University
17:00-17:25	A17	体心立方金属的反常孪生行为 Jiangwei Wang Zhejiang University
17:25-17:50	A18	生物医学电镜自主研制 Fei Sun Institute of Biophysics, CAS
17:50-17:55	/	Poster Awards
18:00		Adjourn

Date: Sep. 08, 2023 Am (Friday)		
Session 3: Energy and Catalytic Materials Chair: Lihua WANG		
9:00-9:20	A19	待定 Jianwei Miao UCLA, USA
9:20-9:40	A20	待定 Luchang Qin North Carolina State University, USA
9:40-10:05	A21	透射电镜在能源催化研究中的应用 Junjie Guo Taiyuan University of Technology
10:05-10:30	A22	Interface dominated strength-ductility in layered metallic materials Shijian Zheng Hebei University of Technology
10:30-10:40		Coffee Break
Chair: Xiaodong HAN		
10:40-11:05	A23	金属材料变形机制的原位原子尺度研究 Lihua Wang Beijing University of Technology
11:05-11:30	A24	脱合金机理及其在电催化析氧中的应用 Pan Liu Shanghai Jiao Tong University
11:30-11:55	A25	微纳器件缺陷结构与特性的原位 TEM 研究 Ruiwen Shao Beijing Institute of Technology
11:55-12:20	A26	层状化合物 GaSe 的氧化与表面可控构筑研究 Bin Zhang Chongqing University
12:20-12:25		Closing Remarks



SCHEDULE OF SESSIONS

A ELECTRON MICROSCOPY AND MATERIALS SCIENCES

CHAIR:
Prof. XIAODONG HAN

POSTER SESSION

Theme:Microscopy Enlightens New Future

Dates: Sept.7-8,2023

Location:
Room E302,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

A-P1

REVEALING AN ORIENTATION-DEPENDENT MEMRISTIVE BEHAVIOR AND ATOMIC MECHANISM OF CU2SE

Hanwen Hu1, Chen Li1, Hualei Yuan1, Kun Zheng*1, Lei Yang*2

1 Beijing Key Laboratory of Microstructure and Property of Solids, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing 100124, China

2 School of Materials Science & Engineering, Sichuan University, Chengdu, 610064, China

E-mail: kunzheng@bjut.edu.cn

A-P2

INDOOR PHOTOVOLTAIC MATERIALS AND DEVICES

Bin YAN1, Cong WANG*1 and Dingjiang XUE*2

1 Beijing Key Lab of Microstructure and Properties of Advanced Materials, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing 100124, China

2 Beijing National Laboratory for Molecular Sciences (BNLMS), CAS Key Laboratory of Molecular Nanostructure and Nanotechnology, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

E-mail: smartswang@bjut.edu.cn

A-P3

RECEALING THE THERMAL DECOMPOSITION MECHANISM OF POLYCRYSTALLINE NCM811 CATHODE

Yang Ding, Pengfei Yan*

Beijing Key Laboratory of Microstructure and Properties of Solids, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing, 100124, China

E-mail: pfyan@bjut.edu.cn

A-P4

SELF-ASSEMBLED PEROVSKITE NANOWIRE CLUSTERS FOR HIGH LUMINANCE RED LIGHT-EMITTING DIODES

Jingcong Hu

A-P5

ORIGIN OF THE BIAS INSTABILITY IN CSPBI3 LIGHT-EMITTING DIODES

Jingcong Hu

A-P6

ISLAND COATING ENABLING HIGH CYCLING STABILITY OF HIGH RATE LCO CATHODE

Jingjing Qu, Pengfei Yan*

Beijing Key Laboratory of Microstructure and Properties of Solids, Faculty of Materials and

Manufacturing, Beijing University of Technology, Beijing, 100124, China

E-mail: pfyan@bjut.edu.cn

A-P7

COLLOIDAL SYNTHESIS AND PHASE TRANSFORMATION OF ALL-INORGANIC BISMUTH HALIDE PEROVSKITE NANOPATES

Chao Wang1, Jia-wen Xiao*1, Zheng-guang Yan1

1 Institute of Microstructure and Property of Advanced Materials, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing, 100124, China

E-mail: xiaojw@bjut.edu.cn, yanzg@bjut.edu.cn,

A-P8

SURFACE STRUCTURE MODULATION OF PT-CO NANOCATALYSTS FOR OXYGEN REDUCTION REACTIONS

Chao Wang1, Jia-wen Xiao*1, Zheng-guang Yan1

1 Institute of Microstructure and Property of Advanced Materials, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing, 100124, China

E-mail: xiaojw@bjut.edu.cn, yanzg@bjut.edu.cn,

A-P9

ADVANCED CHARACTERIZATION GUIDING RATIONAL DESIGN OF REGENERATION PROTOCOL FOR SPENT-LICOO2

Xulin Mu1, Manling Sui*1, Pengfei Yan*1

1 Beijing Key Laboratory of Microstructure and Properties of Solids, Faculty of Materials and Manufacturing, Beijing University of Technology, Beijing, 100124, China

E-mail: mlsui@bjut.edu.cn; pfyan@bjut.edu.cn

A-P10

MICROFLUIDIC SYNTHESIS OF SUPPORTED PTCU ELECTROCATALYST FOR EFFICIENT ETHANOL OXIDATION

Xueming KANG1, Dongtang ZHANG*1, Li AN*1, Xiayan WANG1, Zaicheng SUN1, Guangsheng GUO1, 2

1 Center of Excellence for Environmental Safety and Biological Effects, Beijing Key Laboratory for Green Catalysis and Separation, Department of Chemistry, Beijing University of Technology, Beijing 100124, P. R. China

2 Minzu University of China, Beijing 100081, China.

*E-mail: zhangdongtang@bjut.edu.cn; 08131@bjut.edu.cn

A-P11

QUANTITATIVE EVIDENCE OF IN-SITU ATOMIC-SCALE PLASTIC ACTIVITIES AND REVERSIBLE STRUCTURAL CHANGES IN AG NANOCRYSTALS

Dongwei Li1, Zhanxin WANG1, Yufeng ZHAO1, Weijing ZENG1, Zihao ZHANG1, Shuai LI1, Huibin LIAN1, Chengpeng YANG1, Yan MA1,

Libo FU1, Yizhong GUO1, Ze ZHANG2, Shengcheng MAO*1, Lihua WANG*1 and Xiaodong HAN*1

1 Institute of Microstructure and Property of Advanced Materials, Beijing University of Technology, Beijing 100124, China.

2 Department of Materials Science, Zhejiang University, Hangzhou 310027, China.

E-mail: scmao@bjut.edu.cn; wlh@bjut.edu.cn; xdhan@bjut.edu.cn.

A-P12

STACKING FAULTS INDUCING OXYGEN ANION ACTIVITIES IN LI2MNO3

Boya Wang, Zengqing Zhuo, Haifeng Li, Shiqi Liu, Shu Zhao, Xu Zhang, Jue Liu, Dongdong Xiao, Wanli Yang, Haijun Yu

A-P13

IN SITU LIQUID CELL TRANSMISSION ELECTRON MICROSCOPY GUIDING THE DESIGN OF LARGE-SIZED COCATALYSTS COUPLED WITH ULTRA-SMALL PHOTOCATALYSTS FOR HIGHLY EFFICIENT ENERGY HARVESTING

Chunlang Gao, Chunqiang Zhuang, Yuanli Li, Heyang Qi, Ge Chen, Zaicheng Sun, Jin Zou, Xiaodong Han

A-P14

CO AND PT DUAL-SINGLE-ATOMS WITH OXYGEN-COORDINATED CO-O-PT DIMER SITES FOR ULTRAHIGH PHOTOCATALYTIC HYDROGEN EVOLUTION EFFICIENCY

Cong Wang, Kaiwen Wang, Yibo Feng, Chong Li, Xiaoyuan Zhou, Liyong Gan, Yajie Feng, Hanjun Zhou, Bin Zhang, Xianlin Qu, Hui Li, Jieyuan Li, Ang Li, Yiyang Sun, Shengbai Zhang, Guo Yang, Yizhong Guo, Shize Yang, Tianhua Zhou, Fan Dong, Kun Zheng, Lihua Wang, Jun Huang, Ze Zhang, Xiaodong Han

A-P15

DIRECT OBSERVATION OF TENSILE-STRAIN-INDUCED NANOSCALE MAGNETIC HARDENING

Deli Kong, András Kovács, Michalis Charilaou, Fengshan Zheng, Lihua Wang, Xiaodong Han, Rafal E Dunin-Borkowski

A-P16

PREDICTION OF SUB-PYRAMID TEXTURING AS THE NEXT STEP TOWARDS HIGH EFFICIENCY SILICON HETEROJUNCTION SOLAR CELLS

Feihong Chu, Xianlin Qu, Yongcai He, Wenling Li, Xiaoqing Chen, Zilong Zheng, Miao Yang, Xiaoning Ru, Fuguo Peng, Minghao Qu, Kun Zheng, Xixiang Xu, Hui Yan & Yongzhe Zhang

A-P17

STRUCTURAL EVOLUTION OF TOPOLOGICALLY CLOSED PACKED PHASE IN A NI-BASED SINGLE CRYSTAL SUPERALLOY

Haibo Long, Shengcheng Mao, Yinong Liu, Hong Yang, Hua Wei, Qingsong Deng, Yanhui Chen, Ang Li, Ze Zhang, Xiaodong Han

Date: Sep. 07, 2023 Pm (Thursday)		
Session 2: Applications of Mass Spectrometry in Multidisciplinary Sciences Chair: Prof.Bin HU, Prof.Ting RUAN		
13:30-13:50	B9	High Efficient Labelling Reagent for Relative Quantification of Glycans Using CESI-MS and CE-LIF Xin-Xiang ZHANG (Invited) Peking University, China
13:50-14:10	B10	ICP-MS Based Single Cells Analysis Bin HU (Invited) Wuhan University, China
14:10-14:30	B11	Structure-Specific Analysis of N-Glycoproteins Using Mass Spectrometry Zhixin TIAN (Invited) Tongji University, China
14:30-14:45	B12	The Online Monitoring of Degradations through Ambient Mass Spectrometry Na NA (Oral) Beijing Normal University, China
14:45-15:00	B13	Characterization of Petroleum Hydrocarbons and Its Significance for Chemical Engineering and Geochemistry Study Yehua HAN (Oral) China University of Petroleum, Beijing, China
15:00-15:15	B14	GDI-ICP-MS and Its Application Min ZHU (Oral) PerkinElmer(Shanghai) Co. Ltd.
15:15-15:25	Coffee Break	
15:25-15:45	B15	Dual-LIT Mass Spectrometers for Structural Analysis and Imaging/Single-Cell Lipidomics Zheng OUYANG (Invited) Tsinghua University, China
15:45-16:05	B16	Stable Isotope Tagging Based Bioassay by ICP-MS Yi LV (Invited) Sichuan University, China
16:05-16:25	B17	Mass Spectrometry-Aided Metabolite Annotation: From Knowns to Unknowns Zhengjiang ZHU (Invited) Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, China
16:25-16:45	B18	Internal Extractive Electrospray Ionization Mass Spectrometry for Molecular Diagnosis of Thoracic Tumors Huanwen CHEN (Invited) Jiangxi University of Chinese Medicine, China
16:45-17:00	B19	Mass Spectrometry-Driven Metabolite Discovery and Functional Studies Shuhai LIN (Oral) Xiamen University, China
17:00-17:15	B20	Application of Miniature Mass Spectrometry in Digital Intelligence Chinese Medicine Mei ZHANG (Oral) Beijing University of Chinese Medicine, China
17:15-17:30	B21	Application of the Compounds Identification Approach Adopted in Mass Spectrometry to the Determination of The Atomic Nucleus Composition Pavel V. KUDAN (Oral) Scientific Research Center, AquaChrom, Russia
17:30	Adjourn	

Date: Sep. 08, 2023 Am (Friday)		
Session 3: Fundamentals of Mass Spectrometry Chair: Prof.Yuanjiang PAN, Prof.Qiang ZHAO		
9:10-9:40	B22	Isotopic Labeling-Based Analytical Tools with HDpairFinder for Nontargeted Analysis of Reactive Nitrogenous Organics in Water Xing-Fang LI (Keynote) University of Alberta, Canada
9:40-10:00	B23	Development and Application of Wide Energy Range Plasma Ionization Mass Spectrometry Yuanjiang PAN (Invited) Zhejiang University, China
10:00-10:20	B24	ToF-SIMS Imaging to Visualize In Situ Interactions between Metallo drugs and Biological Targets in Single Cells Fuyi WANG (Invited) Institute of Chemistry, Chinese Academy of Sciences, China
10:20-10:35	B25	Application of High Sensitivity ICP-MS in Isotope Ratio Analysis Fenguo WU (Oral) Analytik Jena GmbH, Germany
10:35-10:45	Coffee Break	
10:45-11:05	B26	Derivatization Mass Spectrometry-Based Study on Trace Small Molecule Metabolite Isomers and Applications Yinlong GUO (Invited) Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, China
11:05-11:25	B27	Introduction of the Excited-CH ₂ Cl ₂ Induced Association Ionization Method Jinian SHU (Invited) University of Chinese Academy of Science, China
11:25-11:45	B28	Proteomic Profiling of ADP-Riboxanation Reveals a New Mechanism of Stress Granule Formation Xiaoyun LIU (Invited) Peking University, China
11:45-12:00	B29	Stable Isotope Labeled Internal Standards in Environmental Monitoring Lei ZHANG (Oral) Alta Scientific Co., Ltd, Tianjin, China
12:00-13:30	Lunch time/Poster Session	
Date: Sep. 08, 2023 Pm (Friday)		
Session 4: MS–Based Proteomic and Epigenetic Analysis Chair: Prof. Yinsheng WANG, Prof.Xiangjun LI		
13:30-13:50	B30	Chemical Biology of Guanine Quadruplex-Binding Proteins Yinsheng WANG (Invited) University of California- Riverside, USA

13:50-14:10	B31	Free Radical Initiated Peptide Sequencing Mass Spectrometry and The Efforts to Automate The Lab in a DIY Approach Han Bin (Invited) Sogang University, Republic of Korea
14:10-14:30	B32	Adolescent Alcohol Exposure Changes RNA Modifications in Adult Brain by Mass Spectrometry Analysis Bifeng YUAN (Invited) Wuhan University, China
14:30-14:45	B33	Novel Method for Rapid Analysis of Micro-/Nano-Plastics and Its Application Jie JIANG (Oral) Harbin Institute of Technology, Weihai, China
14:45-15:00	B34	Mass Spectrometry for Analysis of Solid-Liquid Interfaces Yanyan ZHANG (Oral) Institute of Chemistry, Chinese Academy of Sciences, China
15:00-15:15	B35	Characteristics and Applications of Shimadzu's New generation high resolution mass spectrometry LCMS-9050 Rongrong WANG (Oral) Shimadzu(China) Co., LTD.
15:15-15:25	Coffee Break	
15:25-15:45	B36	Chemical Crosslinking Mass Spectrometry for Protein Interactome Analysis In Live Cells Lihua ZHANG (Invited) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China

15:45-16:05	B37	Fully Automated and Integrated 96-Channel Proteomics Platform for High-Throughput Drug Target Discovery Ruijun TIAN (Invited) Southern University of Science and Technology, China
16:05-16:25	B38	Reveal the Mechanism of Action of PCI-34051 and SAHA Towards Histone Deacetylase 8 (HDAC8) by Integrative Structural MS Huilin LI (Invited) Sun Yat-sen University, China
16:25-16:40	B39	Tyrosine, Histidine Reactive Cross-Linker for Probing Protein Three Dimensional Structures Ming LI (Oral) National Institute of Metrology, China
16:40-16:55	B40	A High-Throughput Sample Preparation Solution for Mass Spectrometry Single-Cell Proteomics Hanbin MA(Oral) Guangdong ACXEL Micro & Nano Tech Co., Ltd., China
16:55-17:10	B41	Sequential Analysis Of Miscellaneous Samples by Mass Spectrometry Jiaquan XU (Oral) East China University of Technology, China
17:10-17:25	B42	Mass Spectrometry Characterization of Metabolites at Cellular Resolution Ruichuan YIN (Oral) Sichuan University, China
17:25-17:30	/	Closing Remarks Chair: Prof. Hailin WANG

SCHEDULE OF SESSIONS

B

MASS SPECTROMETRY

CHAIR:
Prof. Hailin WANG

POSTER SESSION

Theme: Mass Spectrometry
Analysis-Creating Frontier in
Interdisciplinary

Dates: Sept.7-8,2023

Location:
Room W105,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

B-P1

FAST DETECTION OF 5-HYDROXYMETHYLCYTOSINE IN GENOME OF HUMAN BLADDER
CANCER T24 CELLS USING MAGNETIC MULTI-ENZYME CASCADE COMBINED WITH HPLC-
MS/MS

Tianjiao FANG, Meng JIA, Junfa YIN* and Hailin WANG

1 Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing
100085, China

2 University of Chinese Academy of Sciences, Beijing 100049, China

E-mail:jfyin@rcees.ac.cn

B-P2

QUANTIFICATION AND SIZE DISTRIBUTION OF FOUR KINDS OF METAL NANOPARTICLES IN
SEWAGE TREATMENT PLANT BY SP-ICP-MS

Yuan Liang1,2, Entai Yang1,2, Lihong Liu*1, Bin He1,2, Ligang Hu1,2 and Guibin Jiang1,2

1. State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for
Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China;

2. School of Environment, Hangzhou Institute for Advanced Study, University of Chinese
Academy of Sciences, Hangzhou 310024, China;

E-mail: lhliu@rcees.ac.cn

B-P3

APPLICATION OF LIQUID CHROMATOGRAPHY WITH HIGH RESOLUTION MASS
SPECTROMETRY IN SCREENING METABOLITES OF CHLORINATED PARAFFINS

Tian Wang1,2, Weifang Chen3, Jiyan Liu1,2,3*, Guibin Jiang1,2,3

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for
Eco-Environmental Sciences, Chinese Academy of Sciences, P.O. Box 2871, Beijing, 100085,
China

2 College of Resources and Environment, University of Chinese Academy of Sciences, Beijing,
100049, China

3 School of Environment, Hangzhou Institute for Advanced Study, University of Chinese
Academy of Sciences, Hangzhou, 310000, China

E-mail: liujy@rcees.ac.cn

B-P4

INTRACELLULAR MYELOPEROXIDASE (MPO)/ HYPOCHLOROUS ACID (HOCL)- ACTIVATED

CRISPR/CAS9 FOR GENE EDITING

Rui SHA1, 2, Xiaoyan WANG1, 2, Hanyong PENG1, 2*

1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China.

2 University of Chinese Academy of Sciences, Beijing 100049, China.

* Corresponding authors.

E-mail: hypeng@rcees.ac.cn

B-P5

NON-INVASIVE TUMOR IMAGING USING NUCLEIC ACIDS
TEMPLATED NANO-SIZED MNCO3 PARTICLES

Qiangjun HAO1,3, Wenjing XIE1,3, Zi YE1,2,3, Hanyong PENG1,3*

1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China

2 School of Environment, Hangzhou Institute for Academy Study,
University of Chinese Academy of Sciences, Hangzhou 310024,
China

3University of Chinese Academy of Sciences, Beijing 100049, China

E-mail: hypeng@rcees.ac.cn

B-P6

QUANTITATIVE PROTEOMIC STUDY OF BREAST MILK FAT
GLOBULAR MEMBRANE BASED ON MULTIPLE TMT LABELING

Junxia Cao1 , Wantao Ying1 , Xinling Cui2*, Hai Lu2, Hongmei Li2

1 State Key Laboratory of Proteomics, Beijing Proteome Research
Center, National Center for Protein Sciences (Beijing), Beijing Institute
of Lifeomics, Beijing 102206, China

2 Key Laboratory of Chemical Metrology and Applications on
Nutrition and Health for State Market Regulation, National Institute
of Metrology, Beijing 100029, China

B-P7

USING MASS SPECTROMETRY IMAGING TO STUDY ORTHOPEDIC
DISEASE -- OSTEONECROSIS OF THE FEMORAL HEAD (ONFH)

Jikun LIU1, #, Chen LI2, #, Yiqi SHENG1, Honggang NIE3, Dali FU1
and Yehua HAN *1

1 State Key Laboratory of Heavy Oil Processing, China University of
Petroleum-Beijing, Beijing 102249, China

2 Department of Orthopaedics, Tianjin Hospital, Tianjin, 300211,
China

3 Beijing National Laboratory for Molecular Sciences, College of
Chemistry and Molecular Engineering, Peking University, Beijing
100871, China

These authors contributed equally to this work

E-mail: hanyehua@cup.edu.cn

B-P8

DEPROTOMERS OF MOLECULE : EFFECTS OF STRUCTURES AND
SOLVENTS

Dali Fu1, Yiwei Chen1, Shijie Feng1, Yehua Han,*1

1 State Key Laboratory of Heavy Oil Processing, College of Chemical
Engineering and Environment, China University of Petroleum-Beijing,
Beijing 102249, China

E-mail: hanyehua@cup.edu.cn

B-P9

APPLICATION OF ATMOSPHERIC PRESSURE MATRIX-ASSISTED
LASER DESORPTION/IONIZATION (AP-MALDI) IN MASS
SPECTROMETRY IMAGING

Xiaoqing WANG1, Yan GUO1, Xiaoying TAN1, Xinyao YAN1, Xiaokun
DUAN1, Charles C. LIU1

1 ASPEC Technologies Limited, Beijing, China

E-mail: shujie.zou@aspecttechnologies.com

B-P10

THE APPLICATION AND POTENTIAL OF DART MASS
SPECTROMETRY FOR RAPID BROAD-SPECTRUM DIRECT ANALYSIS

Xinyao Yan1, Xiaokun DUAN1, Yan Guo1, Xiaoqing Wang1, Xiaoying
Tan1, Charles C. Liu1

1 ASPEC Technologies Limited, Suzhou, China

E-mail: shujie.zou@aspecttechnologies.com

B-P11

SOFT IONIZATION BY CHEMICAL REACTION IN TRANSFER (SICRIT)
MASS SPECTROMETRY: ANALYSIS OF CHINESE LIQUOR

Yan Guo1, Xiaoqing Wang1, Charles C. LIU1

1 ASPEC Technologies Limited, Suzhou, China

E-mail: shujie.zou@aspecttechnologies.com

B-P12

AP/MALDI IMAGING FACILITATES THE DEVELOPMENT OF SPATIAL
METABOLOMICS

Wendi Zhang1, Xiaokun DUAN1, Charles C. Liu1

1 ASPEC Technologies Limited, Beijing, China

E-mail: shujie.zou@aspecttechnologies.com

B-P13

(LESA-MS) AS A NOVEL PROFILING TOOL FOR QUANTITATIVE SPATIAL ANALYSIS OF LIPIDOME

Xiaoying TAN1, Xiaokun DUAN1, Guo Yan1, Xiaoqing WANG1 Xinyao YAN1 Charles C. Liu1

1 ASPEC Technologies Limited, Beijing, China

E-mail: shujie.zou@aspecttechnologies.com

B-P14

DEVELOPMENT OF A LC-MS/MS METHOD FOR ACCURATE QUANTIFICATION OF MODIFIED NUCLEOSIDES FROM RNA DEGRADATION

Lyuye ZHANG1,2, Weibing ZHANG2, Hailing WANG*1

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China

2 Shanghai Key Laboratory of Functional Materials Chemistry, School of Chemistry & Molecular Engineering, East China University of Science and Technology, Shanghai, China

E-mail : hlwang@rcees.ac.cn

B-P15

THE N-ALKANES AND MONOCYCLIC ALKANES WITH ULTRA-HIGH CARBON NUMBER AND EVEN CARBON NUMBER PREDOMINANCE WERE DETECTED IN THE HIGHLY MATURE SOURCE ROCK

Tan Wang1, Haodong Wang1, Chenglong Dong1, Yehua Han*1

1 State Key Laboratory of Heavy Oil Processing, China University of Petroleum-Beijing, Beijing 102249, China

E-mail: hanyehua@cup.edu.cn

B-P16

STUDY ON THE CHANGES OF DNA HYDROXYMETHYLATION DURING ETOPOSIDE INDUCED CELL AGING.

Xiuhao YU1, Shaokun CHEN1, Hailin WANG1*

1 The State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 10085, China.

E-mail:yxh9785p@163.com

B-P17

A NOVEL INTEGRATED SCREENING METHOD FOR PARALYTIC SHELLFISH TOXINS AND THEIR ANALOGUES BASED ON FRAGMENTATION CHARACTERISTICS USING AN ORBITRAP-BASED ULTRAHIGH- PERFOEMANCE LIQUID CHROMATOGRAPHY -HIGH -RESOLUTION MASS SPECTROMETRY

Longhui LIANG, Jiaxin LI, Kun HE*, and Fangting DONG*

National Center of Biomedical Analysis, Beijing 100039, China

E-mail: dft@proteomics.cn; hk@proteomics.cn

B-P18

SELECTIVE AND COMPREHENSIVE CHARACTERIZATION OF OLEFINS BY PATERNÒ-BÜCHI REACTION WITH ULTRA-HIGH RESOLUTION MASS SPECTROMETRY

Wenya Hu, Jialin Niu, Ruoning Bao, Yehua Han*

State Key Laboratory of Heavy Oil Processing, China University of Petroleum-Beijing, Beijing 102249, China

E-mail: hanyehua@cup.edu.cn

B-P19

MULTI-REFLECTION TIME-OF-FLIGHT MASS SPECTROMETER WITH ATMOSPHERIC PRESSURE INTERFACE

Qi Huang1, Yi Ren1, Yi Hong2, Shuxiong Yan2

1 Guangzhou MS Institute of ScientiPc Instrument Innovation, Guangzhou 510530, China;

2 Guangzhou Hexin Instrument Co., Ltd, Guangzhou 510530, China;

E-mail: huangqi@stu2020.jnu.edu.cn

B-P20

HIGHLY EFFICIENT GEL ELECTROPHORESIS SEPARATION COUPLED WITH OFFLINE UHPLC-MS/MS FOR ACCURATE QUANTIFICATION OF NUCLEIC ACID MODIFICA-TIONS VIA IN-GEL DIGESTION

Jing ZHENG1,2, Hailin WANG1,2

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, China

2 University of Chinese Academy of Sciences, Beijing, 100049, China

E-mail: hlwang@reccs.ac.cn

B-P21

CAPTURING CRITICAL SITES OF PROTEIN-DNA COMPLEXES BY A HIGHLY SENSITIVE ENZYME COMPLEX METHOD

Qinghua Zhang 1,2, Yonggang Hu2, Hailin Wang1*

1.The State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 10085, China.

2.National Key Laboratory of Agricultural Microbiology, College of Life Science and Technology, Huazhong Agricultural University, Wuhan, Hubei 430070, China.

E-mail : hlwang@rcees.ac.cn

B-P22

SERUM METABOLOMIC ANALYSIS REVEALED POTENTIAL METABOLITE BIOMARKERS FOR DIABETES MELLITUS WITH CORONARY HEART DISEASE

Zhenning JIN*1, Wei HU2, Yan YANG3

1 Yangtze Delta Region Institute of Tsinghua University, Zhejiang, Jiaxing 314006, Zhejiang, China

2 Department of Stomatology, First Medical Center of PLA General Hospital, Beijing 100853, Beijing, China.

3 Department of Stomatology, Zhongnan Hospital of Wuhan University, Wuhan 430071, Hubei, China

E-mail: jinzhenning@tsinghua-zj.edu.cn

B-P23

ANALYSIS OF 22 PER- AND POLYFLUOROALKYL SUBSTANCES IN WATER BY HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY

Wenlong Yang1*, Hongli Fan2, Yezhu Yin1, Chaofei Zhu1, Bing Du1*, Meiling Lu2

1 State Environmental Protection Key Laboratory of Dioxin Pollution Control, National Research Center for Environmental Analysis and Measurement, Environmental Development Center of the Ministry of Ecology and Environment, Beijing 100029

2 Agilent Technologies (China) Limited, Inc., Beijing, 100102

*E-mail: thudubing@hotmail.com

B-P24

THE ADAL DEAMINASE-DEPENDENT 2'-DEOXYNUCLEOTIDE POOL SANITATION IS REVEALED BY ULTRA HPLC-MS/MS ANALYSIS

Shaokun Chen1,2, Weiyl Lai1, Xiangjun Li2*, Hailin Wang1*

1 The State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 10085, China.

2 School of Chemical Sciences, University of Chinese Academy of Sciences, Beijing 100049, China.

*Corresponding author. Email: hlwang@rcees.ac.cn (H.W.)

B-P25

TOF-SIMS AND XPS ANALYSES OF CLEAN GRAPHENE AND GRAPHITE

Wenjing XIE1, Lu-Tao WENG2,3, Hanyong PENG1,4 and Chi-Ming Chan*3,5

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, China.

2 Materials Characterization and Preparation Facility (GZ), Advanced

Materials Thrust, The Hong Kong University of Science and Technology (Guangzhou), Nansha, Guangzhou, 511400, Guangdong, China

3 Department of Chemical and Biological Engineering, Hong Kong University of Science and Technology, Kowloon, 999077, Hong Kong, China

4 University of Chinese Academy of Sciences, Beijing, 100049, China.

5 Division of Environment, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, 999077, Hong Kong, China

E-mail: kecmchan@ust.hk

B-P26

DESIGN OF ADENOSINE DEAMINASE-LIKE PROTEIN TOOLKIT FOR IDENTIFICATION OF THE ORIGINS OF DNA N6-METHYLADENINE

Ziyu Liang1, 2, Weiyl Lai1, 2, Yao Li1, 2, and Hailin Wang*1, 2

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for EcoEnvironmental Sciences, Chinese Academy of Sciences, Beijing 100085, China

2 University of Chinese Academy of Sciences, Beijing 100049, China

E-mail: hlwang@rcees.ac.cn

B-P27

ABSOLUTE QUANTIFICATION OF RICIN BY ICP-MS/MS AND COMPARISON OF MULTIPLE QUANTIFICATION METHODS

Jia LIU1,2, Chuang WANG1,3, Lan Xiao1,3, Lei GUO1*

1 State Key Laboratory of Toxicology and Medical Countermeasures, and Laboratory of Toxicant Analysis, Institute of Pharmacology and Toxicology, Academy of Military Medical Sciences, Beijing, 100850, China

2 Hebei University of Science and Technology, Shijiazhuang, 050091, China

3 Minzu University of China, Key Laboratory of Ethnic medicine, Ministry of Education, Beijing 100081, China

E-mail: guolei@bmi.ac.cn

B-P28

DESORPTION ELECTROSPRAY IONIZATION MASS SPECTROMETRY ASSOCIATED WITH MULTIVARIATE DATA ANALYSIS FOR DETERMINING THE DEPOSITION ORDER OF LASER PRINTING AND SEALS

Ying Chen 1 and Guangming Huang 1, *

1 School of Chemistry and Materials Science, University of Science and Technology of China (USTC), Hefei, 230026 P. R. China

E-mail: yingcmelody@mail.ustc.edu.cn

B-P29

DETERMINATION OF DP IN WATER BY GAS CHROMATOGRAPHY

TRIPLE QUADRUPOLE MASS SPECTROMETRY

Wenlong Yang1, Yezhu Yin1, Chaofei Zhu1, Wenwen Wang2, Meiling Lu2 and Bing Du*1

1 State Environmental Protection Key Laboratory of Dioxin Pollution Control, National Research Center for Environmental Analysis and Measurement, Beijing 100029, China.

2 Agilent Technologies (China) Ltd., Inc., Beijing, 100102, China

E-mail: ywlpops@126.com

B-P30

DISCRIMINATION OF LEUCINE AND ISOLEUCINE IN COMPLEX MATRICES BY NANO-ESI MASS SPECTROMETRY

Chen Ling1, Guangming Huang1,*

1 School of Chemistry and Materials Science, University of Science and Technology of China, Hefei, Anhui, 230026, P. R. China.

E-mail: gmhuang@ustc.edu.cn

B-P31

MACHINE LEARNING ASSISTED MALDI MASS SPECTROMETRY FOR RAPID ANTIBIOTIC RESISTANCE PREDICTION IN CLINICALS

Weibo Gao1,2, Jinming Zhang3, Jingxian Yang4, Shuang Li3, Shuanglong Zhang1,2,5 and Hang Li*5,6

1 School of Mechatronical Engineering, Beijing Institute of Technology, Beijing, China

2 Beijing Advanced Innovation Center for Intelligent Robots and Systems, Beijing

3 School of Computer Science & Technology, Beijing Institute of Technology, Beijing, China

4 Department of Clinical Laboratory, Aerospace Center Hospital, 15 Yuquan Road, Haidian District, 100049 Beijing, China

5 Institute of Engineering Medicine, Beijing Institute of Technology, Beijing, China

6 School of Medical Technology, Beijing Institute of Technology, Beijing, China

E-mail: weibo.gao@bit.edu.cn

B-P32

SINGLE-CELL METABOLIC MASS SPECTROMETRY REVEALED THE ANTI-TUMOR MECHANISM OF NK CELLS IN LIVER CANCER

Zhuanghao HOU1,2, Xiaohu ZHENG*1,3, Haiming WEI*1,3, and Guangming HUANG*1,2

1 The First Affiliated Hospital of USTC, University of Science and Technology of China, Hefei, China

2 School of Chemistry and Materials Science and National Synchrotron Radiation

Laboratory, University of Science and Technology of China, Hefei, China

3 Hefei National Research Center for Physical Sciences at the Microscale, CAS Key Laboratory of Innate Immunity and Chronic Disease, School of Basic Medical Sciences, Division of Life Sciences and Medicine, University of Science and Technology of China, Hefei, China

E-mail: gmhuang@ustc.edu.cn

B-P33

DNA NANOTECHNOLOGIES FOR GENOME EDITING AND BIOIMAGING IN LIVING CELLS

Aijiao YUAN1,2, Rui SHA1, Hang XIAO1,2, Hanyong PENG1,2

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China;

2 University of Chinese Academy of Sciences, Beijing 100049, China.

Email: hypeng@rcees.ac.cn

B-P34

INTERFERENCE AND ELIMINATION IN DETERMINATION OF CADMIUM IN INFANT COMPLEMENTARY FOOD BY ICP-QQQ-MS

Wei CAI1,2, Bo ZHAO2, Shaolei ZHAO1, Huanhuan CHEN2, Xiao LI*2, Hai LU2 and Chao WEI2

1 Beijing Institute of Metrology, Beijing 100029, China

2 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China

E-mail: caiw@biml.cn (W.C.); zhaobo@nim.ac.cn (B.Z.); zhaosl@biml.cn (S.Z.); chenhuanhuan@nim.ac (H.C.); lixiao@nim.ac.cn (X.L.); luhai@nim.ac.cn (H.L.); weichao@nim.ac.cn (C.W.)

B-P35

CHARACTERISTIC ASSOCIATED ORGANIC MATTER IDENTIFICATION OF MAGNETIC PARTICLES FROM DIFFERENT SOURCES BASED ON MALDI-TOF MS

Hang YANG1, Ke Min1, Qian LIU1*, Guibin JIANG1

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China

E-mail: qianliu@rcees.ac.cn

B-P36

APPLICATION OF 4D LABEL-FREE LACTYLATION QUANTITATIVE PROTEOMICS IN SEPSIS-ASSOCIATED AKI

Jiao Qiao1,2,3, and Liyan Cui*1,2,3

1 Institute of Medical Technology, Peking University Health Science

Center, Beijing, 100191, China.

2 Department of Laboratory Medicine, Peking University Third Hospital, Beijing, 100191, China.

3 Core Unit of National Clinical Research Center for Laboratory Medicine, Peking University Third Hospital, Beijing, 100191, China.

*Correspondence: Liyan Cui, cliyan@163.com

B-P37

GLASS MICROFLUIDIC CHIP WITH MONOLITHIC INTEGRATED NANO-ELECTROSPRAY EMITTERS COUPLED WITH MASS SPECTROMETRY FOR THE DETECTION OF NEUROTRANSMITTERS IN DROPLETS

Ziyang GUO1, Yaoyao ZHAO*1, and Xiayan WANG*1

1 Center of Excellence for Environmental Safety and Biological Effects, Beijing Key Laboratory for Green Catalysis and Separation, Department of Chemistry, Beijing University of Technology, Beijing 100124, China;

*E-mail: guo_ziyang@emails.bjut.edu.cn

zhaoyaoyao@bjut.edu.cn

xiayanwang@bjut.edu.cn

B-P38

ENRICHMENT OF GENOMIC LOCUS-SPECIFIC PROTEINS

Di LIU1,2, Bailin ZHAO1,2,*

1 Institute of Molecular and Translational Medicine, Translational Medicine Institute, Xi'an Jiaotong University, The Innovation Harbor Campus, Xi'an, China

2 Department of Biochemistry and Molecular Biology, School of Basic Medicine Sciences, Xi'an Jiaotong University, Xi'an, China

E-mail: bailinzh@xjtu.edu.cn

B-P39

Screening method for organophosphorus flame retardants based on liquid chromatography-high resolution mass spectrometry

Kangcong LI, Xiuqin LI, Yan ZHANG, Yan GAO, Qinghe ZHANG*

Division of Chemical Metrology, National Institute of Metrology, Beijing, 100029, China

E-mail: zhangqh@nim.ac.cn

B-P40

EFFICIENT CATALYST-FREE N₂ FIXATION BY WATER UNDER AMBIENT CONDITION

Xiaoping Zhang1, Rui Su2, Konstantin Chingin3, Huanwen Chen1,3*

1 Jiangxi Key Laboratory for Mass Spectrometry and Instrumentation, East China University of Technology, Nanchang, 330013, P. R. China.

2 State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun 130012, P. R. China

3 School of Pharmacy, Jiangxi University of Chinese Medicine, Nanchang, 330004, P. R. China

Email: chw8868@gmail.com

B-P41

Depression Detection Based on Online Mass Spectrometry of Exhaled Breath: A Pilot Study

Zhencai Chen, Ke Peng, Huajie Sui, Xinrui Zhang, Huanwen Chen*

Mass Spectrometry Laboratory for BioSample analysis, Jiangxi University of Traditional Chinese Medicine, Nanchang 330004, China

E-mail: chw8868@gmail.com

B-P42

Determination of Benzo[k]tetraphene in Fresh Bamboo Juice by Electrospray Extraction Ionization Tandem Mass Spectrometry

Hui-Yu XING 1, Teng-Gao ZHU2, Konstantin Chingin3, Huan-Wen CHEN3, and Xiao-Wei FANG *2

1 School of Pharmacy, Jiangxi University of Traditional Chinese Medicine , Nanchang 330004, China

2 Laboratory Service center, Jiangxi University of Traditional Chinese Medicine , Nanchang 330004, China

3 Mass Spectrometry Laboratory for BioSample analysis , Jiangxi University of Traditional Chinese Medicine , Nanchang 330004, China

E-mail: fxw273@126.com

B-P43

Preclinical Evaluation of CD36-Targeting Antiangiogenic Peptide ABT-510 for Near-Infrared Fluorescence Molecular Imaging of Colorectal Cancer

Ping Luo1, Kuncheng Zhou1, Ray P.S. Han1, Fang Wang1, and Yuanbiao Tu*1

1 Cancer Research Center, Jiangxi University of Chinese Medicine, Nanchang 330004, China

E-mail: 20211018@jxutcm.edu.cn

B-P44

QUALITY CONTROL OF RICE SOUP BY NEUTRAL DESORPTION EXTRACTIVE ELECTROSPRAY IONIZATION MASS SPECTROMETRY

Manman Qin1, Kaixin Xu1, Ning Wang1, Jun Yu2, Huanwen Chen1*

1 Mass Spectrometry Laboratory for BioSample analysis, Jiangxi University of Chinese Medicine, Nanchang 330004, China

2 Department of Cardiovascular Sciences and Centre for Metabolic Disease Research, Lewis Katz School of Medicine, Temple University, Philadelphia, PA, United States

*E-mail: chw8868@gmail.com

SCHEDULE OF
SESSIONS

C
OPTICAL
SPECTROSCOPY

CHAIR:
Prof. Yan He

ORAL LECTURES
Theme: Highly Sensitive Optical
Spectral Analysis and Imaging
Dates: Sept. 7-8, 2023
Location:
Room E206,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
9:20-9:25		Opening Remarks by Prof. Yan He
9:25-9:45	C2	Single-Molecule Chemical Imaging Ning Fang Xiamen University
9:45-10:05	C3	Transient Microscopy and Imaging Analysis Across FS-MS Time Scales Bin Kang Nanjing University
10:05-10:25	C4	Mass Photometry by Integral Microscopy Hui Yu Shanghai Jiao Tong University
10:25-10:45	C5	Computational intravital fluorescence mesoscopy Jiamin Wu Tsinghua University
10:45-10:55	Coffee Break	
10:55-11:15	C6	Single Molecule Localization by Interferometric & Cryogenic Imaging Wei Ji Institute of Biophysics
11:15-11:35	C7	Sub-Cellular Resolution Spatial Omics Based on High Density Capturing Substrate Gufeng Wang Shenzhen Salus Biomed Co. Ltd.
11:35-11:55	C8	Underwater Super-Resolution Imaging for In Situ Observation of Marine Plankton Jianping Li Shenzhen Institute of Advanced Technology
11:55-12:15	C9	Terahertz Spectral Imaging of Biological Samples Huabin Wang Chongqing Institute of Green and Intelligent Technology
12:15-12:27	C10	How KnowItAll Software Help the Spectroscopy Data Analysis Chengbo Sun Wiley
12:30-13:00	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
13:10-13:30	C11	In-Vivo Raman Imaging and Analysis Based on Semiconductor Substrate Yang Tian East China Normal University
13:30-13:50	C12	Life Analysis and Health Effects Based on Chiral Nanotechnology Hua Kuang Jiangnan University
13:50-14:10	C13	Measurement of Chemical Reactivity at Single Particle Level Yuwei Zhang Guangzhou University
14:10-14:30	C14	Liquid Crystal Core/Hydrogel Shell Microcapsules for Monitoring Live Cells Ling Lin Beijing Technology and Business University
14:30-14:50	C15	The Nano-Bio Interaction Analysis Based on Advanced Light Source Technology Yaling Wang National Center for Nanoscience and Technology of China
14:50-15:10	C16	AI for Biomolecular Phase Separation Research Tingting Li Peking University Health Science Center
15:10-15:20	Coffee break	

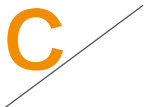
15:20-15:40	C17	Quantitative, Holistic, and Universal Superresolution Live-Cell Imaging: From Structured Illumination Microscopy to the Sparse Deconvolution Algorithm Liangyi Chen Peking University
15:40-15:52	C18	Application of Alloy Remelting and Fully Automatic Sample Preparation Technology in X-Ray Fluorescence Spectroscopy and Optical Emission Spectroscopy Xiaoming Lu Shanghai Lirun Mechanical & Electrical Equipment Co., LTD
15:52-16:04	C19	Electrochemical Fluorescence Spectroscopy for Tracking Small Molecules in Lithium Batteries Xiaoyan Ren Changchun Institute of Applied Chemistry
16:04-16:16	C20	Luminescent Gold Nanoclusters Assembly for Cellular/Organelle Targeting Hui Jiang Southeast University
16:16-16:28	C21	Phase Resetting and Regulation of Circadian Rhythm Kui Han Changping Lab
16:28-16:40	C22	Intracellular Visualization of Intelligent Delivery Systems Based on Aggregation-Induced Emission Nanocarriers Weijiang Guan Beijing University of Chemical Technology
16:40	Adjourn	
Date: Sep. 08, 2023 Am (Friday)		
9:20-9:40	C23	Advances in Single-Molecule Detection for RNA Sensing Chun-Yang Zhang Southeast University
9:40-10:00	C24	Regulating Degradation Pathways of Polymers by Radical-Triggered Luminescence Chao Lu Beijing University of Chemical Technology
10:00-10:20	C25	NIR-II Fluorescent Probes for in vivo Multiplexed Biodetection Fan Zhang Fudan University
10:20-10:40	C26	Spatiotemporally Selective Molecular Sensing Lele Li National Center for Nanoscience and Technology
10:40-10:50	Coffee break	
10:50-11:10	C27	Patterning of optoelectronic devices for biosensing and modulation Hao Zhang Tsinghua University

11:10-11:30	C28	Nanoimprint Lithography for the Fabrication of Optical Gratings Gang Luo Gusulab of Material Science
11:30-11:42	C29	Raman Fiber Photometry for Understanding Molecular Mechanisms upon Hypoxia in the Brain of Freely Moving Animals Zhichao Liu East China Normal University
11:42-11:54	C30	High Sensitive and Miniature Fluorescence Detector and Its Application Xuhui Geng Dalian Institute of Chemical Physics
11:54-12:06	C31	Ion Mobility-enhanced Mid-IR spectrometer for Volatile Organic Compound Molecules Sensing Jianxiong Zhu Southeast University
12:06-12:18	C32	Detection and Analysis of Terahertz Spectra of Biomolecules in Aqueous Solution Mingkun Zhang Chongqing Institute of Green and Intelligent Technology
12:18-12:30	C33	Bruker Ultra-fast infrared imaging technology Yuan Xu Bruker (Beijing) Technology Co., LTD
12:30-13:20	Lunch	
Date: Sep. 08, 2023 Pm (Friday)		
13:20-13:40	C33	Infrared Spectroscopy Analysis for Traditional Chinese Medicine–Marcogenomic Suqin Sun Tsinghua University
13:40-14:00	C34	Application and Exploration of Digital Health in the COVID-19 Epidemic Zhigang Han Beijing Zhengqihe Health Technology Co., Ltd.
14:00-14:20	C35	Multi-Wavelength Fluorescence Detection for Multiplexed Capillary Electrophoresis Based on a Linear Variable Filter Wei Wei Tianjin University of Technology
14:22-14:30	C36	Automatic Single particle analysis workflow for Atomic Force Microscopy Xiaodong Xie Shanghai Jiao Tong University
14:30-14:38	C37	Determining the Depth of Surface Charging Layer of Pseudocapacitive Materials Ben Niu Nanjing University
14:38-14:46	C38	Thienyl-substituted Diketopyrrolopyrrole Modified PbS QDs for NIR-II Triplet Fusion Upconversion and Photopolymerization Lin-Han Jiang Nankai University

14:46-14:54	C39	Circularly Polarized Light Transduced by Chiral Nanoprobes Stimulates Differentiation of Stem Cells Aihua Qu Jiangnan University
14:54-15:02	C40	Microfluidic Subcellular Chemical Labelling for Analysis of Organelle Transport Qiang Zhang Tsinghua University
15:02-15:10	C41	Ln3+-Complexes Loaded Polymer Nanoparticles Ratiometric Thermometer for Intracellular temperature sensing Nana Yin Northeastern University
15:10-15:20	Coffee break	
15:20-15:28	C41	Integrated Fluorescence Microscopic Visualization and Quantification of Oriented Structures in Polymeric Composite Materials Jinpan Zhong Petroleum Exploration and Production Research Institute
15:28-15:36	C42	Design of Novel Nano-Enzymes and Evaluation of Their Drug Activity Yongjian Ai Tsinghua University
15:36-15:44	C43	Observing Molecular Rotation Using Single-molecule Fluorescence Defocus Imaging Jinzhou Ju Institute of Chemistry
15:44-15:52	C44	Large Field of View Miniature Microscope for Wired and Wire-Free Imaging of Neural Dynamics in Freely Behaving Animals Changliang Guo Beijing Institute of Collaborative Innovation
15:52-16:00	C45	Preparation of Multi-Compartmental Particles from 3D Microfluidics Zengnan Wu Tsinghua University
16:00-16:08	C46	Rapid and Signal Crowdedness-Robust In-Situ Sequencing through Hybrid Block Coding Tianyi Chang Peking University
16:08-16:16	C47	Visualization of Polymer Degradation by Chemiluminescence Technique Yue Hou Beijing University of Chemical Technology
16:16-16:24	C48	In Situ Polymerized Ionic Liquids in Polyester Fiber Composite Membranes for Detection of Trace Oil Ruying Wang Tsinghua University
16:24-16:30	Closing Remarks by Prof. Yan He Adjourn	



SCHEDULE OF SESSIONS



OPTICAL SPECTROSCOPY

CHAIR:
Prof. Yan He

POSTER SESSION

Theme:Highly Sensitive Optical Spectral Analysis and Imaging
Dates: Sept.7-8,2023

Location:
Room E206,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

C-P1

DIRECTLY AND SIMULTANEOUSLY ANALYSIS OF TRACE CADMIUM , LEAD , ARSENIC AND MERCURY IN FOOD SAMPLES USING ELECTROTHERMAL VAPOURIZATION ATOMIC FLUORESCENCE SPECTROMETRY

Li Feng1 Xuefei Mao2 and Minghui Zhou3

1 Changsha Kaiyuan Hongsheng Technology Co., Ltd. Changsha 410100 , Changsha, China.
Tel: +86 13974937651

2 Chinese Academy of Agricultural Sciences, Beijing, China. Tel: +86-10-82106563

3 Academy of National Food and Strategic Reserves Administration, Beijing, China. Tel: +86 18600699022

C-P2

IN-SITU RAMAN STUDY OF ELECTROCATALYTIC CARBON DIOXIDE REDUCTION REACTION

Chong GUO1, Zedong ZHANG1, and Ruilong ZONG1*

1 Department of Chemistry, Tsinghua University, China

E-mail: guochong@mail.tsinghua.edu.cn

C-P3

LANTHANIDE-COMPLEXES AND DYES- LOADED POLYMER NANOPARTICLES FOR INTRACELLULAR TEMPERATURE SENSING

Yahua YU, Nana YIN, Yang SHU* and Jianhua WANG*

Department of Chemistry, College of Sciences, Northeastern University, Shenyang 110819, China

E-mail: shuyang@ mail.neu.edu.cn; jianhuajrz@ mail.neu.edu.cn

C-P4

A SENSITIVE AND BIOCOMPATIBLE SIO2-BASED FLUORESCENT PROBE FOR REAL-TIME MONITORING HCLO IN LIVING CELLS AND ZEBRAFISH

Qingyu XU, Jingbin ZENG*

College of Chemistry and Chemical Engineering, China University of Petroleum (East China), Qingdao 266580, P. R. China

E-mail: 18766163025@163.com

C-P5

FLUORESCENCE MONITORING OF THE DEGRADATION EVOLUTION OF ALIPHATIC POLYESTERS

Yujie Li¹, Rui Tian^{*1}, Peili Wang¹, Kaitao Li^{*1} and Chao Lu^{*12}

¹ State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, Beijing, 10029, China.

² Green Catalysis Center, College of Chemistry, Zhengzhou University, Zhengzhou, 450001, China

E-mail: tianrui@mail.buct.edu.cn, likt@mail.buct.edu.cn, luchao@mail.buct.edu.cn

C-P6

RAPID DETECTION OF DDT RESIDUES IN FOOD BY HAND-HELD RAMAN SPECTROMETER

Jing MIAO¹, Xingyu SI^{*2}

¹ CANTERBURY SCHOOL, United States of America

² JINSP Company Limited, Beijing, PR China

E-mail: sixingyu@jinsp-tech.com

C-P7

DESIGN. SCREENING AND APPLICATION OF SELF-ASSEMBLED TARGETED PEPTIDES

Limin Zhang, Weizhi Wang

Beijing Institute of Technology

C-P8

A RATIOMETRIC SERS PLATFORM BASED ON AU NPS MODIFIED METAL-ORGANIC FRAMEWORK NANOSHEETS FOR THE DETERMINATION OF ACRYLAMIDE

Siqi WEI¹, Ling LI¹, Lichen GOU¹, Xiandeng HOU^{1,2}, Li WU^{*1}

¹ Analytical & Testing Center, Sichuan University, Chengdu, Sichuan 610064, China

² College of Chemistry and Key Lab of Green Chem & Tech of MOE, Sichuan University, Chengdu, Sichuan 610064, China

E-mail: wuli@scu.edu.cn

C-P9

DESIGN AND MECHANISM STUDY OF DOPAMINE FLUORESCENCE PROBE BASED ON 3-HYDROXYPHENYLBORIC ACID

Junqi CHENG, and Zhiqin YUAN^{*}

College of Chemistry, College of Chemical Engineering, Beijing University of Chemical Technology, Beijing 100029, China

E-mail: yuanzq@mail.buct.edu.cn

C-P10

FLUORESCENCE-BASED RAPID SCREENING OF LAYERED MATERIAL CRYSTALLINITY

Xinyv FAN, and Zhiqin YUAN^{*}

College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

E-mail: yuanzq@mail.buct.edu.cn

C-P11

GOLD NANOCUSTER-BASED RATIOMETRIC PROBE FOR TYROSINASE ACTIVITY EVALUATION

Hanbing GE, and Zhiqin YUAN^{*}

College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

E-mail: yuanzq@mail.buct.edu.cn

C-P12

STUDY ON DOUBLE AIE WHITE LIGHT UNIT BASED ON GOLD NANOCUSTERS/TPE AND ITS APPLICATION

Qingxin YANG, Zhiqin YUAN^{*}

College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

E-mail: yuanzq@mail.buct.edu.cn

C-P13

CONSTRUCTION OF AN ARTIFICIAL LIGHT-HARVESTING SYSTEM BASED ON SELF-ASSEMBLY OF AIE GEMINI SURFACTANTS

Riliga WU¹, Weijiang GUAN^{*}

¹ State Key Laboratory of Chemical Resource Engineering, College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

*E-mail: wjguan@mail.buct.edu.cn

C-P14

SELF-ASSEMBLY OF CATIONIC AIE AMPHIPHILES WITH NATURAL DNA FOR EFFICIENT LIGHT HARVESTING

Xiaofang TANG¹, Yaping ZHU², Weijiang GUAN^{2*} and Chao LU^{*1,2}

¹ Green Catalysis Center, College of Chemistry, Zhengzhou University, Zhengzhou 450001, China

² State Key Laboratory of Chemical Resource Engineering, College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

*E-mail: wjguan@mail.buct.edu.cn, luchao@mail.buct.edu.cn

C-P15

REAL-TIME VISUALIZATION OF VESICLE FORMATION DYNAMICS

Xiaxia XIN¹, Xiu XIAO¹, Weijiang GUAN^{*}

¹ State Key Laboratory of Chemical Resource Engineering, College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

*E-mail: wjguan@mail.buct.edu.cn

C-P16

EFFECTIVE SEPARATION OF INTACT PROTEINS BY NOVEL COLUMNS FOR ENHANCING TOP-DOWN PROTEOMICS

Chao WANG^{1,2}, Yue SUN^{1,2}, Yu LIANG^{1*}, Zhen LIANG, Lihua ZHANG^{1*}, Yukui ZHANG¹

¹ Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, 116023 (China).

² University of the Chinese Academy of Sciences, Beijing, 100049 (China).

* Corresponding author. Yu Liang, E-mail: yuliang@dicp.ac.cn; Lihua Zhang, E-mail: lihuazhang@dicp.ac.cn.

C-P17

DUAL-FUNCTIONALIZED CORE-SHELL FE₃O₄@AU/AG MAGNETIC NANOMATERIALS WITH STRONG AND STABLE CHEMILUMINESCENCE FOR LABEL-FREE DETECTION OF EXOSOME

Manli Wang¹, Jiangnan Shu^{*1}, Shanshan Wang¹, Aihua Lyu¹, Yisha Wang¹, Dabing Huang² and Hua Cui^{*1}

¹ Key Laboratory of Precision and Intelligent Chemistry, University of Science and Technology of China, Hefei, Anhui 230026, China.

² Department of Oncology, the First Affiliated Hospital of University of Science and Technology of China, Division of Life Sciences and Medicine, University of Science and Technology of China, Hefei, Anhui 230001, China.

E-mail: hcui@ustc.edu.cn; jiangnan@ustc.edu.cn

C-P18

SIZE-CONTROLLED FLUORESCENT NANOSPHERES GUIDED BY ACCURATE MEASUREMENT OF THE SILICON SHELL THICKNESS

Mengyan LI¹, Weijiang GUAN^{1,*}

¹ State Key Laboratory of Chemical Resource Engineering, College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China

*E-mail: wjguan@mail.buct.edu.cn



SCHEDULE OF SESSIONS

D

CHROMATOGRAPHY

CHAIR:

Prof. Lihua ZHANG

ORAL LECTURES

Theme: Separation Science

Safeguards Health Life

Dates: Sept.7-8,2023

Location:

Room W104,

Academic Conference Area,

China International Exhibition

Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Chair: Prof. Huwei LIU and Prof. Myeong Hee MOON		
9:20-9:25	Opening Remarks by Prof.Yukui Zhang	
9:25-9:45	D2	Applications of LC-MS in Clinical Laboratory: Are There any Problems? Huwei LIU (Keynote) Peking University, China
9:45-10:05	D3	Development of Thickness-Tapered Channel for Flow Field-Flow Fractionation Myeong Hee MOON (Keynote) Yonsei University, Korea
10:05-10:25	D4	Imaging Using CE-Separated Peaks Yi CHEN(Keynote) Institute of Chemistry, Chinese Academy of Sciences, China
10:25-10:45	D5	Microfluidic Separation, Enrichment, and Ultrasensitive Detection of Biomarkers Gongke LI (Keynote) Sun Yat-sen University, China
10:45-10:55	Coffee Break	
10:55-11:15	D6	An Integrated Micro-Probe-Based Lossless Liquid Chromatographic Injection System Qun FANG (Keynote) Zhejiang University, China
11:15-11:35	D7	New Methods for Efficient Screening of Multiscale Target Aptamers by Capillary Electrophoresis Feng QU (Keynote) Beijing Institute of Technology, China
11:35-11:50		Efficient Method Development with LabSolutions MD Qingxi CAO (Oral) SHIMADZU(CHINA)CO., LTD.
11:50-13:30	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Chair: Prof. Mingxia Gao		
13:30-13:45	D8	Mircoscale and Preparative Isolation of Exosome for Biomarker Discovery and Drug Delivery Lianghai HU (Oral) Jilin University, China
13:45-14:00	D9	Preliminary Study on Greenificated Molecularly Imprinted Materials for Sample Preparation Jinhua LI (Oral) Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, China
14:00-14:15	D10	Development and Applications of Preparative Heart-Cut Multidimensional Liquid Chromatography System Based on Trapping Arrays Duxin LI (Oral) Soochow University, China;
14:15-14:30	D11	Heterostructured Microparticles: From Emulsion Interfacial Polymerization to Separation Yongyang Song (Oral) Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China
14:30-14:45	D12	Separation-Based Analysis in the Study of Protein-DNA Interactions Fangzhi YU (Oral) National Center for Nanoscience and Technology, China
14:45-15:00	D13	Chiral Amino Acid Profiling in Serum Reveals Potential Biomarkers for Late-Life Depression Minxia LIU (Oral) Beijing Key Laboratory of Mental Disorders, National Clinical Research Center for Mental Disorders & National Center for Mental Disorders, Beijing Anding Hospital, Capital Medical University, China
15:00-15:10	Coffee Break	

Chair: Prof. Xinfeng ZHAO		
15:10-15:25	D14	Separation and Analysis of Complex Biological Sample Based on Functional Graphene Adsorbent Yanan YUAN (Oral) Hebei University, China
15:25-15:40	D15	A Photo-Oxidation Driven Proximity Labeling Strategy Enables Profiling of Organelle Proteome Dynamics in Living Cells He WANG (Oral) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
15:55-16:10	D17	Aptamer Screening of Exosomes Based on Online Competition CE-SELEX Liting ZHENG (Oral) Beijing Institute of Technology, China
16:10-16:25	D18	Label-Free sEVs Capturing Strategy for Lung Cancer Diagnosis and Typing Based on Natural Polyphenol-Metal 3D Network Haiyan WANG (Oral) Hebei University, China
16:25-16:40	D19	PH-Reponsive Block Polymer Coating-Based OT-CEC for Separation of Cephalosporine Antibiotics Nasir ALI (Oral) Institute of Chemistry, Chinese Academy of Sciences, China
16:40	Adjourn	
Date: Sep. 08, 2023 Am (Friday)		
Chair: Prof. Guowang XU and Prof. Yong WANG		
9:20-9:40	D20	A Structure-Guided Molecular Network Strategy for Large Scale Metabolome Annotation of Non-Targeted Metabolomics Data Guowang XU (Keynote) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
9:40-10:00	D21	Profiling of DNA N6-Methyladenine Modification in Diseases Hailin WANG (Keynote) Research Center for Eco-Environmental Sciences, China
10:00-10:20	D22	Chronic Sleep Deprivation Induces Alteration in DNA and RNA Modifications by Liquid Chromatography-Mass Spectrometry Analysis Bifeng YUAN (Keynote) Wuhan University, China
10:20-10:30	Coffee Break	
10:30-10:50	D23	High Capacity Temperature-Responsive Affinity Chromatography Designed for Antibody Separation Quan BAI (Keynote) Northwest University, China
10:50-11:10	D24	Applications of Deep Eutectic Solvents in Chromatographic Analysis Hongdeng QIU (Keynote) Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, China
11:10-11:30	D25	Chiral Separation and Enantioselectivity of Oligopeptides Modified Materials Li QI (Keynote) Institute of Chemistry, Chinese Academy of Sciences, China

11:30-11:50	D26	A Quasi-Dual-Chiral-Channel Enantioseparation Platform Yong WANG (Keynote) Tianjin University, China
11:50-13:10	Lunch Break / Poster Session	
Date: Sep. 08, 2023 Pm (Friday)		
Chair: Prof. Donghao LI and Prof. Yanyan Huang		
13:10-13:30	D27	Component Separation Technology of Complex Sample and Industrialization (Sample Pretreatment) Donghao LI (Keynote) Yanbian University, China
13:30-13:50	D28	Coordinative Porous Nanocomposites for Capture and Cascade Release of Chaperone Protein Inhibitors Yanyan HUANG (Keynote) Institute of Chemistry, Chinese Academy of Sciences, China
13:50-14:10	D29	High-Selectivity Measurements Based on Recognition Peptides Weizhi WANG (Keynote) Beijing Institute of Technology, China
14:10-14:30	D30	Bio-Intelligent Surface of GPCR-GAS Signaling Cascade for Simultaneous Ligand Screening and Evaluation Xinfeng ZHAO (Keynote) Northwest University, China
14:30-14:50	D31	Comprehensive Profiling of Drug Interacting Proteins with Multiple Mass Spectrometry- Based Omics Techniques Jingwu KANG (Keynote) Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, China
14:50-15:10	D32	Co-pyrolysis Behavior and Kinetic Processes of Waste Tires and Biomass Nan DENG (Keynote) Xi'an Jiaotong University, China
15:10-15:20	Coffee Break	
Chair: Prof. Mingliang YE and Prof. Xiaoqiang Qiao		
15:20-15:40	D33	Hydrophobic Derivatization Strategy Facilitates Comprehensive Profiling of Protein Methylation Mingliang YE (Keynote) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
15:40-16:00	D34	Isolation of Subtypes of Endogenous Exosome Based on Size Exclusion Chromatography and Heterogeneous Analysis of Proteins Inside Exosomes Mingxia GAO (Keynote) Fudan University, China
16:00-16:20	D35	High Throughput Exosomal PD-L1 Detecting for Predicting Immunotherapy Response Via Tim4 Functionalized Magnetic MOFS Xiaoqiang QIAO (Keynote) Hebei University, China
16:20-16:40	D36	Effective Separation of Intact Proteins by Novel Columns for Enhancing Top-Down Proteomic Yu LIANG (Keynote) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
16:40-16:50	/	Closing Remarks Chair: Prof. Lihua ZHANG
17:00	Adjourn	

SCHEDULE OF SESSIONS

D

CHROMATOGRAPHY

CHAIR:
Prof. Lihua ZHANG

POSTER SESSION

Theme: Separation Science
Safeguards Health Life

Dates: Sept.7-8,2023

Location:
Room W104,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

D-P1

ACCURATE CHARACTERIZATION OF ALPHA-SYNUCLEIN PROTOFORMS COMPLEX WITH IN-VIVO CROSS-LINKING AND TOP-DOWN MASS SPECTROMETRY

Xue Yang1 , 2 , Yu Liang1* , Bowen Zhong1 , Baofeng Zhao1, Zheng Liang1 , Lihua Zhang1* , Yukui Zhang1

1 CAS Key Laboratory of Separation Sciences for Analytical Chemistry, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China.

2 University of Chinese Academy of Sciences, Beijing, China.

* Corresponding author. Yu Liang, E-mail: yuliang@dicp.ac.cn; Lihua Zhang, E-mail: lihuazhang@dicp.ac.cn.

D-P2

TARGETED MITOCHONDRIAL PROTEIN CONFORMATIONS AND INTERACTIONS ANALYSIS REVEALED BY IN SITU ROS-RESPONSIVE CROSSLINKER RELEASEMENT

Wen Zhou1,2, Wenhao Jia1,2, Weijie Zhang1,2, Yuwan Chen1,2, Xinwei Li1,3, Kaiguang Yang*1, Lihua Zhang*1, Yukui Zhang1

1 CAS Key Laboratory of Separation Sciences for Analytical Chemistry,Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China

2 University of Chinese Academy of Sciences, Beijing 100049, China

3Dalian University of Technology, Dalian 116068, China

E-mail: yangkaiguang@dicp.ac.cn, lihuazhang@dicp.ac.cn

D-P3

CHEMICAL PROTEOMICS PROFILING REVEALS DQDA TARGETS IN COLORECTAL CANCER

Zichun Qiao1,2, Cheng Chen1, Kaiguang Yang1, Xiuling Li*1, Xinmiao Liang1, Yukui Zhang1 and Lihua Zhang*1

1 CAS Key Laboratory of Separation Science for Analytical Chemistry, National Chromatographic R & A Center, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China.

2 University of Chinese Academy of Sciences, Beijing 100049, China.

E-mail: lihuazhang@dicp.ac.cn, lixiuling@dicp.ac.cn

D-P4

Efficient Enrichment Method for N-Phosphorylation Peptides Enables Probing Tau-phosphorylation in Mouse Brain

Hui Pan1,2, Baofeng Zhao1, Bo Jiang1, Zhen Liang1, Lihua Zhang*1, Yukui Zhang1

1 CAS Key Laboratory of Separation Sciences for Analytical Chemistry, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China.

2 University of Chinese Academy of Sciences, Beijing, China.

Email: lihuazhang@dicp.ac.cn

D-P5

A GLYCOSIDIC-BOND-BASED MASS-SPECTROMETRY-CLEAVABLE CROSS-LINKER ENABLES IN VIVO CROSS-LINKING FOR PROTEIN COMPLEX ANALYSIS

Jing CHEN1,2, Qun ZHAO*1, Hang GAO1, Lili ZHAO1, Huiying CHU1, Yichu SHAN1, Liang ZHEN1, Yukui ZHANG1 and Lihua ZHANG*1

1 Dalian Institute of Chemical Physics, Chinese Academy of Sciences, 457 Zhongshan Road, Dalian, 116023

2 School of Chemistry and Material Science, University of Science and Technology of China, 96 Jinzhai Road, Hefei, 230026

E-mail: lihuazhang@dicp.ac.cn

D-P6

ULTRASENSITIVE METAPROTEOME WITH ONLY 1 L OF SEAWATER REVEALING CARBON AND NITROGEN METABOLIC COUPLING THROUGHOUT THE WATER COLUMN

Songduo WANG1,2, Jianhui LIU1, Zenghu ZHANG3, Zhen LIANG1, Lihua ZHANG*1 and Yukui ZHANG1

1 CAS Key Laboratory of Separation Science for Analytical Chemistry, National Chromatographic Research and Analysis Center, Dalian Institute of Chemical Physics, Chinese Academy of Science, Dalian 116023, China

2 University of Chinese Academy of Sciences, Beijing 100049, China.

3 Key Laboratory of Biofuels, Shandong Provincial Key Laboratory of Energy Genetics, Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, Qingdao, 266101, China

E-mail: lihuazhang@dicp.ac.cn

D-P7

ANTIBODY-FUNCTIONALIZED FIBROIN MEMBRANE FOR EXOSOMES CAPTURE ENABLING EARLY SCREENING OF ALZHEIMER'S DISEASE

Peijuan Xie, Haiyan Wang, Xueli Wang, Xiaoqiang Qiao*

College of Pharmaceutical Sciences, Hebei University, Baoding 071002, China

E-mail: xiaoqiao@hbu.edu.cn

D-P8

A NOVEL METHOD FOR IN-DEPTH ANALYSIS OF ORGANELLE-MEMBRANE INTERACTION PROTEINS IN LIVING CELLS

Shiying Zheng1,2, Qun Zhao1, Baofeng Zhao1, Lihua Zhang*1, Yukui Zhang1

1 CAS Key Laboratory of Separation Science for Analytical Chemistry, National Chromatographic R & A Center, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023,

China.

2 University of Chinese Academy of Sciences, Beijing 100049, China.

Email: zhengshiying@dicp.ac.cn

D-P9

HIGH THROUGHOUT EXOSOMAL PD-L1 DETECTION FOR ACCURATE IMMUNOTHERAPY RESPONSE PREDICTION VIA TIM4 FUNCTIONALIZED MAGNETIC MOF

Haiyan Wang, Xiaoqiang Qiao*

College of Pharmaceutical Sciences, Hebei University, Baoding 071002, China

E-mail: hbuqiao@163.com; xiaoqiao@hbu.edu.cn

D-P10

CHEMICALLY-CONFINED RU NANOCRYSTALLINE WITH REDUCED GRAPHENE OXIDE FOR EFFICIENTLY HYDRODEOXYGENATION OF PHENOL UNDER MILD AQUEOUS CONDITIONS

Junmei LIANG*1,2, Haibo Zhao1, Shaolei Zhao1, Yulong Wu2, Shanshan Wang2

1 Beijing Institute of Metrology, Beijing, 100029, China

2 Institute of Nuclear and New Energy Technology, Tsinghua University, Beijing, 100084, China

E-mail: liangjm@bjil.cn

D-P11

CELL SURFACE ENGINEERING COUPLING BIOMEMBRANE FUSION ENABLES HIGHLY EFFICIENT ENRICHMENT OF MEMBRANE PROTEINS

Qianqian Jiang1, 2, He Wang1, 2, Zichun Qiao1, 2, Yutong Hou1, 3, Zhigang Sui1, Baofeng Zhao1, Zhen Liang1, Bo Jiang1, *, Lihua Zhang1, *, Yukui Zhang1

1 CAS Key Laboratory of Separation Science for Analytical Chemistry, National Chromatographic R & A Center, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian 116023, China

2 University of Chinese Academy of Sciences, Beijing 100049, China

3 Dalian Medical University, Dalian 116044, China

E-mail: jiangbo@dicp.ac.cn, lihuazhang@dicp.ac.cn.

D-P12

DESIGN AND SYNTHESIS OF A NOVEL CYANINE PROBE FOR TARGETED INHIBITION OF TAU PHOSPHORYLATION AND THERANOSTIC OF ALZHEIMER'S DISEASE

Xueli Wang1 , Xiaoqiang Qiao*1 and Man Shing Wong*2

1 College of Pharmaceutical Sciences, Key Laboratory of Public Health Safety of Hebei Province, Key Laboratory of Medicinal Chemistry and Molecular Diagnosis, Ministry of Education, Hebei

University, Baoding 071002, China
2 Department of Chemistry, Hong Kong Baptist University, Kowloon
Tong, Hong Kong, SAR China
E-mail: xiaoqiao@hbu.edu.cn; mswong@hkbu.edu.hk

D-P13

ANTIOSTEOPOROTIC COMPOUNDS SCREENING FROM LIGUSTRI
LUCIDI FRUCTUS BY IMMOBILIZED CALCIUM SENSING RECEPTOR
COLUMN
MeiZhi JIAO, XianGang SHI, KaiLi MENG, YaoKun HAN, ChaoNi
XIAO*
College of Life Sciences, Northwest University, Xi'an 710069, PR
China
E-mail: xiaochaoni@nwu.edu.cn

D-P14

DECODING PROTEIN DYNAMICS IN CELLS USING CHEMICAL
CROSS-LINKING AND HIERARCHICAL ANALYSIS
Beirong Zhang 1,3, Zhou Gong 2, *, Lili Zhao 1,3, Yuxin An 1,3, Hang
Gao 1,3, Jing Chen 1,4, Zhen Liang 1, Maili Liu 2, Yukui Zhang 1, Qun
Zhao 1, *, Lihua Zhang1, *
1 CAS Key Laboratory of Separation Science for Analytical Chemistry,
National Chromatographic R & A Center, Dalian Institute of Chemical
Physics, Chinese Academy of Sciences, Dalian 116023, China.
2 State Key Laboratory of Magnetic Resonance and Atomic
Molecular Physics, Innovation Academy for Precision Measurement
Science and Technology Chinese Academy of Sciences, Wuhan
430071, China
3 University of Chinese Academy of Sciences, Beijing 100049, China.
4 School of Chemistry and Material Science, University of Science
and Technology of China, Hefei 230026, China
E-mail: gongzhou@wipm.ac.cn, zhaoqun@dicp.ac.cn, lihuazhang@
dicp.ac.cn.

D-P15

DETERMINATION OF SIX MAIN COMPONENTS IN PHOTORESIST BY
HPLC-DAD
Feng CHEN1, Haiqing ZHAO1, Jiao FENG1, Xiaomin SUN1, Sandong
YANG1, Tong LI*1
1 Dalian Elite Analytical Instruments Co., Ltd., Dalian 116023, China
E-mail: tonglii@elitehplc.com

D-P16

BOOSTING CATALYTIC ACTICITY OF MOF-POLYMER@AUNPS
BASED NANOZYMES FOR VISUAL DETECTION OF SERUM L
CYSTEINE
Lin Tian, Yutong Liu and Li Qi*
Key Laboratory of Analytical Chemistry for Living Biosystems,

Institute of Chemistry, Chinese Academy of Sciences, No. 2
Zhongguancun Beiyijie, Beijing 100190, China. E-mail: qili@iccas.
ac.cn

D-P17

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY ANALYSIS
METHOD STUDY OF COVID-19 DRUG AZVUDINE
Yuanshe SUN1,2, Gaoming HUANG2, Jiao FENG1, Tong Li*1,2
1 Dalian Elite Analytical Instruments Ltd., Dalian 116023, China
2 Suzhou Elite Analytical Instruments Ltd., Suzhou 215123, China
E-mail: yuanshe_sun@eliteHPLC.com

D-P18

FABRICATION OF THERMO-RESPONSIVE ENZYME@MOF
COMPOSITES FOR COLORIMETRIC DETECTION OF GLUCOSE
Muhammad Ali Tajwar, C. Cheng, Rubina Jabeen and Li Qi*
Key Laboratory of Analytical Chemistry for Living Biosystems,
Institute of Chemistry, Chinese Academy of Sciences, No. 2
Zhongguancun Beiyijie, Beijing 100190, China. E-mail: qili@iccas.
ac.cn

D-P19

HPCE
Tao HUANG
Peking University School of Pharmaceutical Sciences
E-Mail: huangtao129@bjmu.edu.cn

D-P20

RESEARCH ON EXTRACTION PROCESS AND PHYSICOCHEMICAL
PROPERTIES OF DIETARY FIBER
Bo LI1, Yupeng ZHAO2, Mingxing YUE1, Shuangshi LI*1, Si
CHEN1,Zheng YAN1
1 Beijing Polytechnic, Beijing, 100176,China
2 Beihang University, Beijing, 100191,China
E-mail: bbllooii@sina.com

D-P21

IMMOBILIZATION OF BETA2-ADRENERGIC RECEPTOR ONTO THE
SOLID SURFACE BY AN ENZYMATIC SITE-SPECIFIC METHOED
TRIGGERD BY LIGASE SORTASE A
Ge WANG, Minyu CHEN, Mingjuan XIANG, J ing WANG, Qian
LI, Xinfeng ZHAO*
College of Life Sciences, Northwest University, Xi'an 710069, PR
China.
E-mail: zhaoxf@nwu.edu.cn

SCHEDULE OF
SESSIONS

E

MAGNETIC
RESONANCE
SPECTROSCOPY

CHAIR:
Prof. Shenlin WANG

ORAL LECTURES

Theme:Magnetic Resonance
Technology for Healthy Living
Dates: Sept.7-8,2023
Location:
Room E303,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Session 1: Solution NMR on Bio–Macromolecues Chiar: Prof. Yi Xue		
9:20-9:25	Opening Remarks by Prof. Maili Liu	
9:25-9:50	E2	To Silence, or Not to Silence, That is the Question! Bin XIA (Keynote) Peking University, Beijing, China
9:50-10:15	E3	Advanced Quantitative Metabonomics with NMR Huiru TANG (Keynote) Fudan University, Shanghai, China
10:15-10:40	E4	19F Nuclear Magnetic Resonance Spectroscopy of Biomolecules Conggang LI (Keynote) Innovation Academy for Precision Measurement Science and Technology, CAS, Wuhan, China
10:40-10:50	Coffee Break	
10:50-11:15	E5	Multiscale Interface Structure Reconstruction and Dynamic Quantitative Analysis Based on Solid-State NMR Xueqian KONG (Keynote) Shanghai Jiao Tong University, Shanghai, China
11:15-11:40	E6	Mechanism of syngas catalytic conversion reaction studied by solid-state NMR spectroscopy Guangjin HOU (Keynote) Dalian Institute of Chemical Physics, CAS, Dalian, China
11:40-11:55		Bruker NMR News Lu SHAN Bruker
11:55-13:30	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Session 2: NMR Methods Chair: TangHui Ru		
13:30-13:55	E7	A New Set of Formulas Describing Electric Field-Induced Chemical Shifts Yi XUE (Keynote) Tsinghua University, Beijing, China
13:55-14:20	E8	NMR Structure based Anti-epilepsy Peptide Design Chunyang CAO (Keynote) Shanghai institute of Organic Chemistry, CAS, Shanghai, China
14:20-14:45	E9	Re-assembly of G-quadruplex via spontaneous Hoogsteen pairing-based strand displacement reaction studied by solution-state NMR Na ZHANG (Keynote) High Magnetic Field Laboratory, Hefei Institutes of Physical Science, CAS, Heifei, China
14:45-15:10	E10	Liquid Nuclear Magnetic Resonance Study of RNA Repeat Sequences in Neurodegenerative Diseases Pei GUO (Keynote) Hangzhou Institute of Medicine (HIM), CAS, Hangzhou, China
15:10-15:20	Coffee Break	

15:20-15:45	E11	Simultaneous Quantification of Small Biomolecules and Chiral Discrimination by 19F NMR Xuncheng SU (Keynote) Nankai University, Tianjin, China
15:45-16:10	E12	NMR-guided Evolution of DNA Polymerase Pfu Lichun HE (Keynote) Innovation Academy for Precision Measurement Science and Technology, CAS, Wuhan, China
16:10-16:35	E13	Purity Assessment of Low Purity Peptide and Volatile Compound by Quantitative Nuclear Magnetic Resonance Method Ting Huang (Keynote) National Institute of Metrology, Beijing, China
16:35-16:50		Company Report
16:50-17:00		Adjourn
Date: Sep. 08, 2023 Am (Friday)		
Session 3: NMR Methods Chair: Haijun YANG		
9:15-9:40	E14	On the Relationship Between Protein Millisecond Dynamics and Stability Chun TANG (Keynote) Peking University, Beijing, China
9:40-10:05	E15	NMR Studies of Intrinsically Disordered Proteins Yunfei HU (Keynote) Innovation Academy for Precision Measurement Science and Technology, CAS, Wuhan, China
10:05-10:30	E16	Molecular Targeted Magnetic Resonance Imaging and Spectroscopy Yefeng YAO (Keynote) East China Normal University, Shanghai, China
10:30-10:40		Coffee Break
10:40-11:05	E17	Characterizing Water Molecules with Important Biological Activities by Solid-State MAS NMR Spectroscopy Riqiang FU (Keynote) National High Magnetic Field Laboratory, Tallahassee, Florida, USA
11:05-11:30	E18	Room-Temperature Dynamic Nuclear Polarization Enhanced NMR Study of Biochemical Small Molecules in Aqueous Solutions Jiafei MAO (Keynote) Institute of Chemistry Chinese Academy of Sciences, Beijing, China

11:30-11:55	E19	A Novel Solid-State NMR Method for Determining Protein Structure under High-Field and High-Speed Conditions Kai XUE (Keynote) Nanyang Technological University, Singapore
11:55-12:10		Company Report
12:10-13:30		Lunch Break / Poster Session
Date: Sep. 08, 2023 Pm (Friday)		
Session 4: Solid-State NMR and EPR on Material Sciences Chair: Riqiang Fu		
13:30-13:55	E20	Ultra-High Resolution Solid-State Nuclear Magnetic Resonance Spectroscopy for Studying New Material Structures and Dynamics Haiming LIU (Keynote) Shanghai Tech University, Shanghai, China
13:55-14:20	E21	Construction and Applications of a 6K Ultra-Low Temperature EPR and NMR Spectrometer Haijun YANG (Keynote) Tsinghua University, Beijing, China
14:20-14:45	E22	NMR Study on Nitrogen-Containing Compounds and Polymer Materials Muhua HUANG (Keynote) Beijing Institute of Technology, Beijing, China
14:45-15:10	E23	Determination of Metal Ion Arrangement in Metal-Organic Framework Materials by Solid-State Characterization Jun Xu (Keynote) Nankai University, Tianjin, China
15:10-15:20		Coffee Break
15:20-15:45	E24	Generation and Transformation Mechanisms of Persistent Environmental Free Radicals Lili YANG (Keynote) Research Center for Eco-Environmental Sciences, CAS, Beijing, China
15:45		Adjourn



SCHEDULE OF SESSIONS

E MAGNETIC RESONANCE SPECTROSCOPY

CHAIR:
Prof. Shenlin WANG

POSTER SESSION
Theme:Magnetic Resonance Technology for Healthy Living
Dates: Sept.7-8,2023
Location:
Room E303,
Academic Conference Area,
China International Exhibition Center (Shunyi Hall), Beijing

- E-P1**
STRUCTURAL BASIS FOR THE TRANSCRIPTION REPRESSION BY HUMAN INSM1 COOPERATING WITH TEF1
Xiaoling He1, Heng Zhou1,2, Yue Xiong1,2, Jiang Zhu1,2, Yunhuang Yang*1,2 and Maili Liu1,2
1 State Key Laboratory of Magnetic Resonance and Atomic Molecular Physics, National Center for Magnetic Resonance in Wuhan, Innovation Academy of Precision Measurement Science and Technology, Chinese Academy of sciences, Wuhan 430071, China
2 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: yang_yh@apm.ac.cn
- E-P2**
STRUCTURAL INSIGHT INTO THE G-QUADRUPLEX UNFOLDING BY qRRM AND RGG MOTIFS OF HUMAN HNRNP H1
Xiaoling He1, Runchen Li1,2, Jiang Zhu1,2, Yunhuang Yang*1,2 and Maili Liu1,2
1 State Key Laboratory of Magnetic Resonance and Atomic Molecular Physics, National Center for Magnetic Resonance in Wuhan, Innovation Academy of Precision Measurement Science and Technology, Chinese Academy of sciences, Wuhan 430071, China
2 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: yang_yh@apm.ac.cn
- E-P3**
TANNIC ACID ETCHED ZIF-8 AS MOLECULAR PROBE FOR HYPERPOLARIZED XENON NMR
Quer YUE 1, 2, Qingbin ZENG1, 2, Qianni GUO1, 2, Xin ZHOU1, 2*
1 Key Laboratory of Magnetic Resonance in Biological Systems, State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, National Center for Magnetic Resonance in Wuhan, Wuhan Institute of Physics and Mathematics, Innovation Academy for Precision Science and Technology Measurement, Chinese Academy of Sciences, Wuhan, 430071, P. R. China.
2 University of Chinese Academy of Sciences, Beijing 100049, P. R. China.
E-mail: xinzhou@wipm.ac.cn
- E-P4**
SIZE TUNABLE MOF FOR HYPER-CEST MRI
Zhen WANG1, Qingbin ZENG1, 2, Qianni GUO1, 2, Xin ZHOU1, 2*
1 Key Laboratory of Magnetic Resonance in Biological Systems, State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, National Center for Magnetic Resonance in Wuhan, Innovation Academy for Precision Science and Technology Measurement, Chinese Academy of Sciences, Wuhan, 430071, P. R. China.
2 University of Chinese Academy of Sciences, Beijing 100049, P. R. China.
E-mail: xinzhou@wipm.ac.cn
- E-P5**
STUDY ON THE STRUCTURE AND DYNAMICS OF RNA SINGLE-BASE BULGE
Lu Yan*, Xinming Li, Yi Xue
School of Life Sciences, Tsinghua University, Beijing 100084, China
- E-P6**
DATABASE ANALYSIS OF NON-CANONICAL BASE PAIRS IN RNA
Yang Shen*, Yi Xue
School of Life Sciences, Tsinghua University, Beijing 100084, China

SCHEDULE OF SESSIONS

F
ELECTROANALYTICAL CHEMISTRY

CHAIR:
Prof. Shaojun GUO
ORAL LECTURES

Theme: Electroanalytical Chemistry: Innovation and Opportunity

Dates: Sept.7-8,2023

Location:
Room W102,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Chair: Jinghong Li		
9:20-9:25	Opening Remarks by Jinhong Li, Shaojun Guo	
9:25-9:50	F2	Designing Single-Atom Nanozymes through Bionics Shaojun Dong Changchun Institute of Applied Chemistry, CAS
9:50-10:10	F3	Single-Virus Tracking with Quantum Dots Daiwen Pang Nankai University
10:10-10:30	F4	Biofuel Cell Self-Powered Electrochemical Biosensors Junjie Zhu Nanjing University
10:30-10:45	Coffee Break	
Chair: Daiwen Pang		
10:45-11:10	F5	Some Recent Achievements in Developing Analytical Science in China Erkang Wang Changchun Institute of Applied Chemistry, CAS
11:10-11:30	F6	In Vivo Sensing Science for Brain Chemistry Lanqun Mao Beijing Normal University
11:30-11:45	F7	Nanozymes for Translational Medicine: Several Cases of Studies Hui Wei Nanjing University
11:45-13:30	Lunch Break / Poster Session	
Date: Sep. 7, 2023 Pm (Thursday)		
Chair: Lanqun Mao		
13:30-13:50	F8	Electrochemiluminescence Biosensing with Nanoparticles as Emitters Huangxian Ju Nanjing University
13:50-14:10	F9	Manipulation of Chemiluminescence Onset Time by Chemical Approach Hua Cui University of Science and Technology of China
14:10-14:30	F10	Nanoconfinement Enhanced Single Molecule Electroanalysis Baohong Liu Fudan University
14:30-14:50	F11	Studying the Structure and Functions of Cell Membranes by Single Molecule Approaches Hongda Wang Changchun Institute of Applied Chemistry, CAS
14:50-15:05	F12	Single-Particle Electrochemistry by Electrochemical Scanning Probe Microscopy Qianjin Chen Donghua University
15:05-15:20	Coffee Break	

Chair: Huangxian Ju		
15:20-15:40	F13	Tumor Marker Detection Technology, Equipment, and Integration of Diagnosis and Treatment Shusheng Zhang Linyi University
15:40-16:00	F14	Electroanalysis of Exosomes by Biosensors Designed with Metal/Covalent Organic Frameworks Genxi Li Nanjing University
16:00-16:15	F15	Chemical Modulation of Carbon Nitride for Electrochemiluminescent Sensing Yuanjian Zhang Southeast University
16:15-16:30	F16	Surface Plasmon Coupling-ECL Polarization Strategy Regulated by Nanoparticle Array to Detect Biomarkers Qiang Ma Jilin University
16:30-16:45	F17	Single Molecule Electrochemical Imaging Resolves the Midpoint Potentials of Individual Fluorophores Jin Lu The National Center for Nanoscience and Technology, CAS
16:45		Adjourn
Date: Sep. 08, 2023 Am (Friday)		
Chair: Xiaoquan Lu		
9:20-9:45	F18	Construction of DNA Logic System Based on the Micro RNA Detection Xiurong Yang Changchun Institute of Applied Chemistry, CAS
9:45-10:05	F19	Developing New Tools for In Vivo Analysis and Imaging in the Brain Yang Tian East China Normal University
10:05-10:25	F20	Single Cell Electroanalytical Strategies Jingjuan Xu Nanjing University
10:25-10:45	F21	Analysis of Water at the Interface Xiue Jiang Changchun Institute of Applied Chemistry, CAS
10:45-11:00	Coffee Break	
Chair: Yang Tian		
11:00-11:20	F22	Artificial Intelligence Biosensors: Endless Frontiers Xueji Zhang Shenzhen University
11:20-11:40	F23	Electrochemical Biosensor Research for Porphyrin Heterocyclic Compounds Xiaoquan Lu Northwest Normal University

11:40-11:55	F24	Coupling Isothermal Amplification with 3D DNA Walker for MicroRNAs Determination Yan Du Changchun Institute of Applied Chemistry, CAS
11:55-13:30	Lunch Break / Poster Session	
Date: Sep. 08, 2023 Pm (Thursday)		
Chair: Daiwen Pang		
13:30-13:50	F25	Plasmon Enhanced IR Spectroscopy and Electrocatalysis Xinghua Xia Nanjing University
13:50-14:10	F26	New Electrochemiluminescent Emitters and Their Applications Chunyang Zhang Southeast University
14:20-14:40	F27	Nano Self-Assembly-Based Chip for Detection Tie Wang Tianjin University of Technology
14:40-15:00	F28	In Situ Visualization of Electrode Processes in the Complex Electrochemical Systems Rui Wen Institute of Chemistry, CAS
15:00-15:15	F29	Entirely Self-Contained Wearable Sweat Sensors & Biofuel Cells Ming Zhou Northeast Normal University
15:15-15:30	Coffee Break	
Chair: Xinghua Xia		
15:30-15:50	F30	In Vivo Analysis Based on Ion Transport Ping Yu Institute of Chemistry, CAS
15:50-16:05	F31	Biocompatible Microelectrode for In Vivo Sensing with Improved Performance Meining Zhang Renmin University of China
16:05-16:20	F32	Tuning Interfacial Small Molecule Activation for Enhanced Electrochemiluminescence Chenzhou Zhu Central China Normal University
16:20-16:35	F33	Chemical Pen for Nanowire Fabrication and Its Application Haifeng Lin Beijing Technology and Business University
16:35-16:50	F34	Interface Regulation for Photoelectrochemical Analysis Liuyong Hu Hu Wuhan Institute of Technology
16:50	Closing Remarks/Adjourn	

SCHEDULE OF SESSIONS

F

ELECTROANALYTICAL CHEMISTRY

CHAIR:
Prof. Shaojun GUO

POSTER SESSION

Theme: Electroanalytical Chemistry: Innovation and Opportunity

Dates: Sept.7-8,2023

Location:
Room W102,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

F-P1

ULTRA-LOW NOISE AMPLIFIER ARRAY SYSTEM FOR HIGH THROUGHPUT SINGLE ENTITY ANALYSIS

Cheng-Bing Zhong¹, Hui Ma¹, Jia-Jun Wang¹, Lin-Lin Zhang¹, Yi-Lun Ying^{1,2,*}, Rong Wang^{3,*}, Yong-Jing Wan³ and Yi-Tao Long¹

¹ State Key Laboratory of Analytical Chemistry for Life Science, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210023, P. R. China.

² Chemistry and Biomedicine Innovation Center, Nanjing University, Nanjing 210023, P. R. China.

³ School of Information Science and Engineering, East China University of Science and Technology, Shanghai 200237, P. R. China.

Corresponding Emails: yilunying@nju.edu.cn; rongwang@ecust.edu.cn

F-P2

"OR" LOGIC GATE MULTIPLEXED PHOTOELECTROCHEMICAL SENSOR FOR HPV: "ONE POT" RPA AND LOGIC DISCRIMINATION

Xue Fan, Wenbo Song*

College of Chemistry, Jilin University, Changchun 130012, PR China

E-mail: wbSong@jlu.edu.cn

F-P3

EFFECTIVE PROMOTION OF OXYGEN REDUCTION REACTION BY SM-GD DOPING TO MODULATE PEROVSKITE SURFACE ELECTRONIC STRUCTURE

Lincheng XU¹, Yue WANG¹, Zhanzhong HAO², Yong YAN³, Yingjie FENG⁴, Qingrui ZHAO⁴, Jing FENG⁴ and Fan LI^{*1}

¹ Department of Chemical Engineering, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

² College of Chemistry, Baotou Teachers College, Baotou 014030, China

³ Department of Chemistry and Biology, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

⁴ Department of Catalytic Science, SINOPEC (Beijing) Research Institute of Chemical Industry Co., Ltd., Beijing, 100013, China

*E-mail: vanadiumli@bjut.edu.cn

F-P4

ELECTROCHEMICAL DETECTION OF NITRIC OXIDE BASED ON PT-M BIMETALLIC NANOPARTICLES

Xiucheng Sun, Yong Yan, Liping Lu, Xiayan Wang*

Center of Excellence for Environmental Safety and Biological Effect, Beijing Key Laboratory for Green Catalysis and Separation, Department of Chemistry, Beijing University of Technology, Beijing, China

Email: xiayanwang@bjut.edu.cn

F-P5

DIFFERENT ELECTRODE CONNECTION FORM DIFFERENT EIS CURVE OF PEM ELECTROLYZED WATER

Yan WANG¹, Yuxiu HE¹, Jun CHEN², Yong YAN³, Yingjie FENG⁴, Qingrui ZHAO⁴, Jing FENG⁴ and Fan LI^{*1}

¹ Department of Chemical Engineering, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

² Beijing Yunrun Technology Ltd, Beijing, 101499, China

³ Department of Chemistry and Biology, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

⁴ Department of Catalytic Science, SINOPEC (Beijing) Research Institute of Chemical Industry Co., Ltd., Beijing, 100013, China

*E-mail: vanadiumli@bjut.edu.cn

F-P6

ZN²⁺-MODIFIED NONMETAL PORPHYRIN-BASED METAL-ORGANIC FRAMEWORKS WITH IMPROVED ELECTROCHEMILUMINESCENCE FOR EXOSOME DETECTION

Yisha Wang, Jiangnan Shu*, Aihua Lyu, Manli Wang, Chao Hu, and Hua Cui*

Key Laboratory of Precision and Intelligent Chemistry, University of Science and Technology of China, Hefei, Anhui 230026, China.

E-mail: hcui@ustc.edu.cn

F-P7

HOMOGENOUS EXTERNAL PRESSURE ENHANCE PEM ELECTROLYSIS PERFORMANCE BY USING HYDRAULIC COMPRESSION CELL

Yuxiu HE¹, Yan WANG¹, Jun CHEN², Yong YAN³, Yingjie FENG⁴, Qingrui ZHAO⁴, Jing FENG⁴ and Fan LI^{*1}

¹ Department of Chemical Engineering, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

² Beijing Yunrun Technology Ltd, Beijing, 101499, China

³ Department of Chemistry and Biology, Faculty of Environment and Life sciences, Beijing University of Technology, Beijing, 100124, China

⁴ Department of Catalytic Science, SINOPEC (Beijing) Research Institute of Chemical Industry Co., Ltd., Beijing, 100013, China

E-mail: vanadiumli@bjut.edu.cn

F-P8

THE DETERMINATION OF CERIV(IV) BY THE ELECTROMETRIC TITRATION WITH THE FERROUS AMMONIUM SULFATE AS THE TITRANT.

Shiyuan REN^{*1}, Nan WANG¹, Mingyu CHI¹

¹ Northeastern University Analysis and Testing Center, 11 Wenhua Road 3 Xiang, Shenyang, Liaoning10819, China

E-mail: 86862651@qq.com



SCHEDULE OF
SESSIONS

G
ANALYTICAL
TECHNIQUES IN
LIFE SCIENCES

CHAIR:
Prof. Lei GUO

ORAL LECTURES

Theme:Analytical Techniques
Improve the Understanding of
Life

Dates: Sept.7-8,2023

Location:
Room E201,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Chair: Prof. Yingfu LI and Prof. Yinsheng WANG		
9:20-9:25	Opening Remarks by Prof. Lei GUO	
9:25-9:50	G2	Functional Nucleic Acids as Bacterial and Viral Sensors Yingfu LI (Keynote) Department of Biochemistry and Biomedical Sciences, McMaster University, Hamilton, Ontario, Canada
9:50-10:15	G3	New DNA Aptamers for Detecting Biologically Important Metabolites Juewen Liu (Keynote) University of Waterloo, Canada
10:15-10:40	G4	A Crossover Perspective Viewing about Circular Single Stranded DNA Jie SONG (Keynote) Hangzhou Institute of Medicine, Chinese Academy of Sciences
10:40-10:50	Coffee Break	
10:50-11:15	G5	Bioanalytical Approaches toward Revealing Novel Functions of Nucleic Acid-Binding Proteins Yinsheng WANG (Keynote) University of California Riverside, USA
11:15-11:40	G6	Novel Analytical Strategy to Rapidly Profile and Identify Oxidized Species of Polysorbate 80 Jinlan Zhang (Keynote) Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College
11:40-12:00	G21	Molecular Diagnosis Enabled by Dynamic DNA Nanotechnology Feng LI College of Chemistry, Sichuan University, Chengdu, Sichuan, China Department of Chemistry, Brock University, St. Catharines, Canada
12:00-13:40	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Chair: Prof. Xiujun LI and Prof. Bifeng YUAN		
13:45-14:10	G7	Innovations in Nanotechnology for Cancer Early Detection at the Point of Care Xiujun James LI (Keynote) Department of Chemistry, Border Biomedical Research Center, and Biomedical Engineering, University of Texas at El Paso, Texas, USA
14:10-14:35	G8	Single-base Resolution Detection of N6-methyladenosine in RNA by Adenosine Deamination Sequencing Bifeng YUAN (Keynote) School of Public Health, Wuhan University, Wuhan, China College of Chemistry and Molecular Sciences, Wuhan, China
14:35-15:00	G9	Super-Fast in Situ Protein Counting in a Cell Bingjie ZOU (Keynote) Department of Pharmaceutical Analysis, School of Pharmacy, China Pharmaceutical University
15:00-15:10	Coffee Break	
Chair: Prof. Guangming Huang and Prof. Bingjie ZOU		
15:10-15:35	G10	Preparation and Evolution of Antibodies to Small Molecule for Analytical Purpose Zhanhui WANG (Keynote) China Agricultural University, Beijing, China
15:35-16:00	G11	Metabolite Profiling and Identification in Single Living cell Guangming HUANG (Keynote) School of Chemistry and Materials Science, University of Science and Technology of China, 230026, Hefei, China
16:00-16:25	G12	Peptide Self-assembly Aided Bio-analysis Weizhi WANG (Keynote) Beijing Institute of Technology, Beijing, China

16:25-16:40	G22	Interfacial Profiling of MicroRNAs at Patterned Nanogaps for an Integrated Microfluidic-SERS Liquid Biopsy Zhen LI Institute for Advanced Study, Shenzhen University, Shenzhen, China
16:40-16:55	G23	NK Cell Mitochondrial Membrane Potential-Associated Model Predicts Outcomes in Critically Ill Patients with COVID-19 Qingqing MA Department of Clinical Laboratory, State Key Laboratory of Complex, Severe and Rare Diseases, Peking Union Medical College Hospital, Peking Union Medical College and Chinese Academy of Medical Sciences, Beijing, China
16:55	/	Adjourn

Date: Sep. 08, 2023 Am (Friday)		
Chair: Prof. Tiannan GUO and Prof. Xiaomei YAN		
9:20-9:45	G13	Proteomics: From big Data to Foundation Model Tiannan GUO (Keynote) Westlake Laboratory of Life Sciences and Biomedicine, School of Life Sciences, Westlake University, China
9:45-10:10	G14	Multiparameter Analysis of Single Extracellular Vesicles for Basic Research and Clinical Translation Xiaomei YAN (Keynote) Department of Chemical Biology, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, China
10:10-10:35	G15	Challenges In the Biomedical Application of Aptamers Selected by Cell-SELEX Dihua SHANGGUAN (Keynote) Institute of Chemistry, Chinese Academy of Sciences, China
10:35-10:45	Coffee Break	
Chair: Prof. Guangbo QU, Prof. Wenbin DU		
10:45-11:10	G16	Post-Synthetic Functionalization of Zirconium-Based Fluorescent Metal-Organic Frameworks For Highly Selective Detection Of Fluoride Ions Ge WANG (Keynote) Beijing Advanced Innovation Center for Materials Genome Engineering, University of Science and Technology Beijing, China
11:10-11:25	G24	"Diazo-carboxyl Click Derivatization Enables Sensitive Analysis of Carboxylic Acid Metabolites in Biosamples Li QUAN College of Future Technology, Institute of Molecular Medicine, Beijing Key Laboratory of Cardiometabolic Molecular Medicine, Peking University, Beijing, China
11:25-11:40	G25	In vitro Evolution of Functional Aptamers for regulation of intracellular targets Liqin ZHANG State Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University Beijing, China
11:40-11:55	G26	Super Enhanced Purification of Denatured Refolding Ubiquitinated Proteins by Thubd Yanchang LI Beijing Proteome Research Center, Institute of Lifeomics, Beijing, China; Anhui Medical University, School of Basic Medicine, Hefei, Anhui, China
12:00-13:30	Lunch Break / Poster Session	

Date: Sep. 08, 2023 Pm (Friday)		
Chair: Prof. Gongyu LI and Prof. Yu BAI		
13:35-14:00	G17	Discovery of Neurodegenerative Disease-linked Protein Stereochemical Modifications with Conformer-resolved Mass Spectrometry Gongyu LI (Keynote) Research Center for Analytical Science, Nankai University, Tianjin, China
14:00-14:25	G18	Single Cell Multi-Omics Analysis Yu BAI (Keynote) Beijing National Laboratory of Molecular Science, College of Chemistry and Molecular Engineering, Peking University, Beijing , China
14:25-14:45	G27	Open Microfluidic Probe: Toward Stable Generation of Reactive Intermediates for In-Situ Subcellular Stimulation Qiang ZHANG Beijing Key Laboratory of Microanalytical Methods and Instrumentation, MOE Key Laboratory of Bioorganic Phosphorus Chemistry & Chemical Biology, Tsinghua University, Beijing, China
14:45-15:05	G28	Polymer-Modified Gold Nanobipyramids for Intracellular Temperature Sensing During Photothermal Therapy Juan QIAO Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China
15:05-15:15	Coffee Break	
Chair: Prof. Ping XU and Prof. Rui XIAO		
15:10-15:35	G19	Phosphoproteome is a First Responder in Tiered Cellular Adaptation to Chemical Stress Followed by Proteomics and Transcriptomics Alteration Ping XU (Keynote) National Center for Protein Sciences Beijing, China
15:35-16:00	G20	Surface Enhanced Raman Immunochromatographic Detection Technology and Its Application Rui XIAO (Keynote) State Key Laboratory of Pathogen and Biosecurity, Beijing Institute of Microbiology and Epidemiology, Beijing, China
16:00-16:15	G29	Separation and Determination of Tumor Marker in Urine Based on Functional Graphene Aerogel Mingwei WANG State Key Laboratory of New Pharmaceutical Preparations and Excipients, Hebei Key Laboratory of Public Health Safety, College of Pharmaceutical Science, Hebei University, Baoding, China
16:15-16:30	G30	Dynamic Interferon-Stimulated Gene Signature against Severe COVID-19 During the Omicron Wave Zhan LI Department of Clinical Laboratory, State key Laboratory of Complex, Severe and Rare Diseases, Peking Union Medical College Hospital, Chinese Academy of Medical Science and Peking Union Medical College; Beijing, China
16:30-16:45	G31	Nano-Sensors Based on Self-Assembly Structures for In Vitro Detection Zhenjie Xue Life and Health Intelligent Research Institute, Tianjin University of Technology, Tianjin, China
16:45-16:55		Poster Awards/Closing Remarks
17:00	/	Adjourn

SCHEDULE OF SESSIONS

G ANALYTICAL TECHNIQUES IN LIFE SCIENCES

CHAIR:
Prof. Lei GUO

POSTER SESSION

Theme: Analytical Techniques
Improve the Understanding of
Life

Dates: Sept.7-8,2023

Location:
Room E201,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

G-P1

DIAGNOSTIC AND MONITORING VALUE OF B-2TRANSFERRIN AND TRANSFERRIN FOR INTRACRANIAL INFECTION AFTER NEUROSURGERY

Yuxin Chen2,*, Yaowei Ding2,*,Guojun Zhang2# and Zhijun Yang1#

1 Department of Neurosurgery of Beijing Tiantan Hospital, Capital Medical University, Beijing, China

2 Department of Clinical Diagnosis, Laboratory of Beijing Tiantan Hospital, Capital Medical University, Beijing, China;

*These authors contributed equally to this work.

#Correspondence:

Zhijun Yang, zhijunyang@ccmu.edu.cn, NO. 119 Nansihuan West Road, Fengtai District Beijing, China

Guojun Zhang, guojun.zhang@ccmu.edu.cn, NO. 119 South Fourth Ring Road West, Fengtai District Beijing, China

G-P2

INDUCTION OF BINDING SITES FOR RECA APTAMERS BY DIFFERENTIATED-COMPETITION CAPILLARY ELECTROPHORESIS-SELEX

Guangyu Jang1 Ge Yang1 Feng Qu2 Yuhuan Li1*

1 CAMS Key Laboratory of Antiviral Drug Research, Beijing Key Laboratory of Antimicrobial Agents, NHC Key Laboratory of Biotechnology of Antibiotics, Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing 100050, China.

2 Key Laboratory of Molecular Medicine and Biotherapy, School of Life Science, Beijing Institute of Technology, 5 South Zhongguancun Street, Beijing 100081, China;

G-P3

INDOLEAMINE 2,3 DIOXYGENASE 1 IMMOBILIZATION ON MAGNETIC NANOPARTICLES FOR SCREENING INHIBITORS FROM COFFEE

Zhuoting Liu1,2, Xu Wang1*, Qu feng2

1 State Key Laboratory of Food Nutrition and Safety, College of Food Science and Engineering, Tianjin University of Science and Technology, Tianjin 300457, China

2 Key Laboratory of Molecular Medicine and Biotherapy, School of Life Science, Beijing Institute of Technology, China

E-mail: lzt1215524176@qq.com

G-P4

MATRIX-ASSISTED INLET IONIZATION MASS SPECTROMETRY (MAII-MS) FOR RAPID DETECTION OF PEPTIDES AND PROTEINS

Guangteng ZHANG1,2, DongMei LI2, Lei GUO*2 and Hongyuan HE*1

1 School of Investigation, People's Public Security University of China, Beijing 100038, China

2 State Key Laboratory of Toxicology and Medical Countermeasures, and Laboratory of Toxicant Analysis, Institute of Toxicology and Pharmacology, Academy of Military Medical Sciences, Beijing 100850, China

E-mail: guolei@bmi.ac.cn; 13311296819@189.cn

G-P5

SENSITIVE BIOSENSING OF RICIN AND ITS AGGLUTININ BASED ON CASCADED CATALYTIC REACTIONS

Xuan HUANG1, Li LUO1,2, Lan XIAO1, Luyuan QIN1, Chuang WANG1,3, Lei GUO1*

1 State Key Laboratory of Toxicology and Medical Countermeasures, and Laboratory of Toxicant Analysis, Institute of Pharmacology and Toxicology, Academy of Military Medical Sciences, Beijing 100850, China

2 Guangdong Lifotronic Biomedical Technology Co., Ltd, Dongguan 523808, China

3 Key Laboratory of Ethnomedicine (Minzu University of China), Ministry of Education, School of Pharmacy, Minzu University of China, Beijing 100081, China

E-mail: guolei@bmi.ac.cn

G-P6

SINGLE-NANOPARTICLE CONCENTRATION MECHANISMS FOR MULTIPLEXED BIOMARKER ANALYSIS AND CANCER DIAGNOSIS BASED ON SERS

Xiaohui Lu and Zheng Li*

Institute for Advanced Study, Shenzhen University, Shenzhen, Guangdong 518060, China

E-mail: zhengli24@szu.edu.cn

G-P7

APTAMER SCREENING OF EXOSOMES BASED ON ONLINE COMPETITION CE-SELEX

Li Chen, Ge Yang* and Feng Qu*

1 School of Life Science; Key Laboratory of Molecular Medicine and Biotherapy; Key Laboratory of Medical Molecule Science and Pharmaceuticals Engineering; Beijing Institute of Technology, Beijing 100081, China

2 CAMS Key Laboratory of Antiviral Drug Research, Beijing Key Laboratory of Antimicrobial Agents, NHC Key Laboratory of Biotechnology of Antibiotics, Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences and Peking Union Medical

College, Beijing 100050, China

E-mail: qufengqu@bit.edu.cn, yangge@imb.cams.cn

G-P8

RAPID DETECTION OF ASTRAZON ORANGE R IN THE BROWN SUGAR BY SURFACE-ENHANCED RAMAN SPECTROSCOPY

Yu Hailong1, Shao Yong2*, Cui Xueyan1, Yan Zheng1, Ren Jianhua1, Li Shuangshi1, Jian Weijie1

1 College of Bioengineering, Beijing Polytechnic, Beijing 100176, PR China

2 Institute of Quality Standards and Testing Technology for Agri-Products, Chinese Academy of Agricultural Sciences, Beijing 100081, PR China

E-mail: 20886478@qq.com (Yu Hailong)

G-P9

A GLYCOPROTEIN-BASED SERS-LFA METHOD FOR ABRIN DETECTION

Lan XIAO1,2, Chuang Wang1, Li Luo1,3, Han HAN4,Li TANG2, Rui XIAO*4, Lei GUO*1

1 State Key Laboratory of Toxicology and Medical Countermeasures, Laboratory of Toxicant Analysis, Institute of Toxicology and Pharmacology, Academy of Military Medical Sciences, Beijing 100850, China

2 Key Laboratory of Ethnomedicine (Minzu University of China), Ministry of Education, School of Pharmacy, Minzu University of China, Beijing 100081, China

3Guangdong Lifotronic Biomedical Technology Co., Ltd,Dongguan 523808, China

4Beijing Institute of Microbiology and Epidemiology, Beijing 100070, China

E-mail: guolei@bmi.ac.cn ; ruixiao203@163.com

G-P10

RAPID DETECTION OF GENE DOPING BASED ON MICROFLUIDIC CRISPR-CAS12A SYSTEM

Bingxin ZHENG1, 2, Ying LI1, 2, *, Yunhuang YANG1, 2, *

1 Wuhan Institute of Physics and Mathematics, Innovation Academy for Precision Measurement Science and Technology, Chinese Academy of Sciences, Wuhan 430071, China

2 University of Chinese Academy of Sciences, Beijing10049, China

E-mail: liying@wipm.ac.cn; yang_yh@apm.ac.cn

G-P11

G-TRIPLEX: A NEW TYPE OF CRISPR-CAS12A REPORTER ENABLING HIGHLY SENSITIVE NUCLEIC ACID DETECTION

Tao LI1, 2, Ying LI1, 2, *, Yunhuang YANG1, 2, *

1 Wuhan Institute of Physics and Mathematics, Innovation Academy
for Precision Measurement Science and Technology, Chinese
Academy of Sciences, Wuhan 430071, China

2 University of Chinese Academy of Sciences, Beijing 10049, China
E-mail: liying@wipm.ac.cn; yang_yh@apm.ac.cn

G-P12

POTASSIUM EFFLUX MEDIATE CORNEAL EPITHELIAL CELLS
PYROPTOSIS VIA IMPAIRED AUTOPHAGY IN DRY EYE

Kai Liao#, Hao Zeng#, Xue Yang, Dalian He, Bowen Wang*, and Jin
Yuan*

State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic
Center, Sun Yat-sen University, Guangdong Provincial Key Laboratory
of Ophthalmology and Visual Science, Guangzhou, China

#Authorship note: Kai Liao and Hao Zeng contributed equally to this
work.

*Corresponding Author:

Bowen Wang, State Key Laboratory of Ophthalmology, Zhongshan
Ophthalmic Center, Sun Yat-sen University, Guangzhou, China, E-mail:
sysuwangbowen@126.com

Jin Yuan, State Key Laboratory of Ophthalmology, Zhongshan
Ophthalmic Center, Sun Yat-sen University, Guangzhou, China, E-mail:
yuanjincornea@126.com

G-P13

TOXICOKINETICS AND IMAGING STUDY OF FENTANYL IN THE
MOUSE BRAIN BASED ON MALDI-MS

Jiadong HUANG1,2,Luyuan QIN2, Guangteng ZHANG1,2, Lei GUO*2
and Hongyuan HE*1

1 School of Investigation, People's Public Security University of China,
Beijing 100038, China

2 State Key Laboratory of Toxicology and Medical Countermeasures,
and Laboratory of Toxicant Analysis, Institute of Toxicology and
Pharmacology, Academy of Military Medical Sciences, Beijing
100850, China

E-mail: guolei@bmi.ac.cn; 13311296819@189.cn

G-P14

A NEW EVANESCENT WAVE-ENHANCED FLUORESCENCE
IMMUNOSENSING METHOD OF RICIN PROTEIN

Zongxian ZHOU1,2, Lan XIAO2, Zhifang YANG2, Lei GUO2*,
Hongyuan He1*

1 School of Investigation, People's Public Security University of China,
Beijing 100038, China

2 State Key Laboratory of Toxicology and Medical Countermeasures,
and Laboratory of Toxicant Analysis, Institute of Toxicology and
Pharmacology, Academy of Military Medical Sciences, Beijing

100850, China

E-mail: guolei@bmi.ac.cn; 13311296819@189.cn

G-P15

A STUDY OF EPIGENETIC MODIFICATION PROFILES AFTER
EXPOSURE TO GENOTOXIC SUBSTANCES USING HIGH CONTENT
SCREENING SYSTEM

Pengxia GAO1,2,Mengqiang GONG1,3, Zhi LI1,Bo MA1, Hua XU1,*, Lili
WANG1, Jianwei XIE1,*

1 Laboratory of Toxicant Analysis, Institute of Pharmacology and
Toxicology, Beijing, 100850, China

2 Hebei University of Science and Technology, Shijiazhuang, 050018,
China

3 Yangtze university, Jingzhou, 434022, China

E-mail: xiejw@bmi.ac.cn; huarxu@163.com

G-P16

APPLICATION OF LIQUID CHROMATOGRAPHY-MASS
SPECTROMETRY TO THE SCREENING AND EVALUATION OF
EPIGENETIC DRUGS

Qinyun SHI1,2, Minmin QU1, Jia CHEN1, Bin XU1, Ying GONG1, Hua
XU1,*,Jianwei XIE1,*

1 Laboratory of Toxicant Analysis, Institute of Pharmacology and
Toxicology, Beijing, 100850, China

2 Qingdao University, Qingdao, 266000, China

E-mail: shiqinyun163@163.com, huarxu@163.com

G-P17

ENZYMATIC REACTION MODULATED AUNPS AGGREGATION-
INDUCED PHOTOTHERMAL AND SMARTPHONE COLORIMETRY
TRYPSIN BIOSENSING PLATFORM

Qi Guoa, Xuemei Songa, and Ke Huang, *

a College of Chemistry and Material Science, Sichuan Normal
University, Chengdu, Sichuan, 610068, China

E-mail: huangke@sicnu.edu.cn

G-P18

CARBON DOTS@ZEOLITIC IMIDAZOLATE FRAMEWORK
NANOPROBE FOR DIRECT AND SENSITIVE BCHE ASSAY WITH
NON-ENZYMATIC REACTION

Kelin Hu a, Yiman Wu a, and Ke Huang a,*

a College of Chemistry and Material Science, Sichuan Normal
University, Chengdu, Sichuan, 610068, China

E-mail: huangke@sicnu.edu.cn

G-P19

RESEARCH PROGRESS FOR THE DETECTION OF AVERMECTIN AND

ITS DERIVATIVES

Shuai LUO1, Xiaojie WANG1,Hucheng ZHANG1, Yaqin WEN1, Linying
LIU1, Ruili WANG1and Jianya ZHU2,*

1 College of Biological Engineering, Beijing Polytechnic, Beijing
100176, China

2 Institute of Fisheries Research, Beijing Academy of Agriculture and
Forestry Sciences,

Beijing 100068, China

E-mail: Zhu_jianya@163.com

G-P20

ANAYSIS OF NIRMATRELVIR / RITONAVIR BY RP-HPLC

Xiaodong HUANG2, Yuanshe SUN1,2 , Tong LI*1,2

1Dalian Elite Analytical Instruments Ltd., Dalian 116023, China

2Suzhou Elite Analytical Instruments Ltd., Suzhou 215123, China

E-mail: yuanshe_sun@eliteHPLC.com

G-P21

VISUAL ANALYSIS OF PYROPHOSPHATASE ASSISTED BY RED
AND GREEN TWO-COLOR DISTANCE-READING TEST STRIPS FOR
DIAGNOSIS OF HYPERTHYROIDISM

Tian Shi1, Yanming Meng1, Zixuan Zhan1, Binwu Ying1, Piaopiao
Chen1

1 Department of Laboratory Medicine, Med+X Center for
Manufacturing, Department of Respiratory and Critical Care
Medicine, Institute of Respiratory Health, Lung Cancer Center, Out-
patient Department, National Clinical Research Center for Geriatrics,
West China Hospital, Sichuan University, Chengdu, Sichuan, 610041,
China.

E-mail: stonessky21@163.com

G-P22

ULTRA-FAST AND HIGHLY SPECIFIC DETECTION OF ONE-BASE
MUTATED CELL-FREE DNA AT A VEVY LOW ABUNDANCE

Yi MA1, Yanan CHU1, Zhaoluo XU1, Chunmei XIE1, Xueping MA1,
Xiemin QI1, Bingjie ZOU3, Likun ZHANG1, Yijun LI2, Xiangpeng HE3,
Haiping WU*2 and Guohua ZHOU*1, 2

1 Department of Clinical Pharmacy, State Key Laboratory of
Analytical Chemistry for Life Science, Nanjing Jinling Hospital,
Affiliated Hospital of Medical School, Nanjing University, Nanjing
210002, China

2 Department of Clinical Pharmacy, Nanjing Jinling Hospital, School
of Pharmaceutical Sciences, Southern Medical University, Guangzhou
510515, China

3 Key Laboratory of Drug Quality Control and Pharmacovigilance
of Ministry of Education, School of Pharmacy, China Pharmaceutical
University, Nanjing 210009, China

E-mail: wuhaiping@smu.edu.cn; ghzhou@nju.edu.cn

G-P23

AFTER COVID-19, WHAT ARE THE TRENDS IN THE LIFE SCIENCE
INSTRUMENTS INDUSTRY?

Xiaowei CHENG

General Manager of Business Division from Anhui Wanyi Science
and Technology Co., Ltd. (Wayeal®, stock code: 688600)

G-P24

EVALUATING THE TRANSDERMAL DELIVERY OF COLLAGEN
PEPTIDES USING STRAT-M® MEMBRANE AND MOUSE SKIN

Xiao-Qing ZHANG2, Li-Ge LIU2, Zheng YAN1*, Bin JIANG1, Peng
DONG1, Cui SONG2, and Hai-Yan WANG2

1 College of Bioengineering, Beijing Polytechnic, Beijing 100176,
China

2 Beijing Semnl Biotechnology Co., Ltd., Beijing 100062, China

E-mail: bioyanzheng@163.com

G-P25

SINGLE-MOLECULE FRET ANALYSIS OF THE BIOCHEMICAL
MECHANISMS OF NON-HOMOLOGOUS END-JOINING REPAIR
Bailin ZHAO1,2,*, Di LIU1,2

1 Institute of Molecular and Translational Medicine, Translational
Medicine Institute, Xi'an Jiaotong University, The Innovation Harbor
Campus, Xi'an, China

2Department of Biochemistry and Molecular Biology, School of Basic
Medicine Sciences, Xi'an Jiaotong University, Xi'an, China

E-mail: bailinzh@xjtu.edu.cn

G-P26

A DNA NANO FIREWORK FOR IMAGING AND INHIBITOR
SCREENING OF FLAP ENDONUCLEASE 1 IN LIVING CELLS

Chen Wang, Bingjie Zou*, Qinxin Song*

Key Laboratory of Drug Quality Control and Pharmacovigilance,
Ministry of Education, School of Pharmacy, China Pharmaceutical
University, 210009, China



SCHEDULE OF
SESSIONS

H
ENVIRONMENTAL
ANALYSIS

CHAIR:
Prof. Qian LIU

ORAL LECTURES

Theme: Environment and

Health

Dates: Sept.7-8,2023

Location:

Room W103,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Session 1: New Analytical Techniques & Instruments Chair: Qiuquan Wang, Yi Wan		
9:20-9:25	Opening Remarks by Prof. Qian Liu	
9:25-9:55	H2	CRISPR and amplification assays for nucleic acids in the environment X. Chris Le (Keynote) University of Alberta, Canada
9:55-10:20	H3	Exploring the Biological Behavior and Fate of Nanomedicines by Advanced Light Source Analytical Techniques Chunying Chen (Invited) National Center for Nanoscience and Technology, China
10:20-10:45	H4	Bacteria-cell interactions revealed by element-tagging SC-ICP-qMS Qiuquan Wang (Invited) Xiamen University, China
10:45-10:55	Coffee Break	
10:55-11:20	H5	High-through analysis and mass spectrometry imaging of polyhalogenated compounds Yi Wan (Invited) Peking University, China
11:20-11:45	H6	Breath analysis by using secondary electrospray ionization high resolution mass spectrometry: Applications and perspectives Xue Li (Invited) Jinan University, China
11:45-12:00	H7	Portable liquid crystal sensor for the detection of pollutants Qiongzheng Hu (Oral) Qilu University of Technology (Shandong Academy of Sciences), China; Shandong Analysis and Test Center, Shandong, China
12:00-12:15	H8	Agilent Chromatography Combined Mass Spectrometry Technology Facilitate New Pollutants Screening in Environment Wenwen Wang (Oral) Agilent Technologies (China) Co. Ltd.
12:15-13:30	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Session 2: Exposomics and Exposure Analysis Chair: Guangbo Qu, Mingliang Fang		
13:30-13:55	H9	Application of metabolomics methods in clinical and environmental toxicology Tiangang Luan (Invited) Sun Yat-Sen University; Guangdong University of Technology; Wuyi University, China
13:55-14:20	H10	Building mechanistically sound machine learning models for environmental applications Huichun (Judy) Zhang (Invited) Case Western Reserve University, USA
14:20-14:45	H11	Identification of Aryl Hydrocarbon Receptor Agonists from Real Environmental Samples Based on Effect-Directed Analysis Guangbo Qu (Invited) Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China
14:45-15:10	H12	The screening and toxic study of new pollutants by machine learning Shulin Zhuang (Invited) Zhejiang University, China
15:10-15:20	Coffee Break	

15:20-15:45	H13	Establishment and Application of Targeted DNA Adductomics Method Based on Ultra-performance Liquid Chromatography-Triple Quadrupole Mass Spectrometry Jicheng Gong (Invited) Peking University, China
15:45-16:10	H14	High-throughput Pseudo Exposomic Analysis: Method Development and Applications Mingliang Fang (Invited) Fudan University, China
16:10-16:25	H15	Chemical isotope labeling based mass spectrometry method for endocrine disrupting chemicals and related exposome analysis Xian'en Zhao (Oral) Qufu Normal University, China
16:25-16:40	H16	Strategies and typical application sharing of LCMS technology in high-throughput screening of new pollutants Guangning Li (Oral) SCIEX China
16:40-16:55	H17	The Analysis of Epigenetic DNA Modifications base on LC-MS Weiyi Lai (Oral) Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China
16:55	Adjourn	
Date: Sep. 08, 2023 Am (Friday)		
Session 3: Micro/Nanoscale Particles and Their Impacts Chair: Xianwei Liu, Liwu Zhang		
9:15-9:40	H18	Beyond Silver Nanoparticle Resistance: Exploring General Stress Responses Chengdong Zhang (Invited) Beijing Normal University, China
9:40-10:05	H19	Identification of nanoparticles via plasmonic scattering interferometry Xianwei Liu (Invited) University of Science and Technology of China, China
10:05-10:30	H20	Mechanisms of new particle formation under atmospheric complex pollution Xiuhui Zhang (Invited) Beijing Institute of Technology, China
10:30-10:40	Coffee Break	
10:40-11:05	H21	Environmental particulate pollution detection and imaging Liwu Zhang (Invited) Fudan University, China
11:05-11:30	H22	In site imaging and in vivo tracing of noble metal nanoparticles Ming Xu (Invited) Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China
11:30-11:45	H23	Screening for high-risk emerging contaminants in the ambient air Lin Qiao (Oral) Zhengzhou University, China
11:45-12:00	H24	Application Solutions of Environmental Emerging Contaminants by GCMS Zhenzhen Li (Oral) Shimadzu (China) Co. Ltd.
12:00-13:30	Lunch Break / Poster Session	

Date: Sep. 8, 2023 Pm (Friday)		
Session 4:Analysis of New Pollutants Chair: Chengbin Zheng, Wei Wang		
13:15-13:40	H25	Rapid detection metchods of environmental pollutants based on CRISPR/Cas toolkits Zhou Nie (Invited) Hunan University, China
13:40-14:05	H26	Solid-Phase Microextraction Coupled to Miniaturized Microplasma Optical Emission Spectrometry for field elemental analysis Chengbin Zheng (Invited) Sichuan University, China
14:05-14:30	H27	Construction of multi-stage anti-pollution sensing micro-nano interface and its application toward environmental analysis Ying Wang (Invited) Tongji University, China
14:30-14:45	H28	Research on Rapid Detection Technology of Pesticide Residues in the Environment Qiang Zhou (Oral) Shenyang Institute of Applied Ecology, Chinese Academy of Sciences, China
14:45-15:00	H29	2,6-Dichloeo-1,4-benzoquinone formation from chlorination of substituted aromatic antioxidants and its control by pre-ozonation in drinking water treatment plant Guang Huang (Oral) Nanjing Medical University, China
15:00-15:15	H30	Studies on Mixed Solutions of Novel Organic Pollutants and Their Applications Lei Zhang (Oral) Alta Scientific Co. Ltd, China
15:15-15:25	Coffee Break	
15:25-15:50	H31	Synthetic Antioxidants as Contaminants of Emerging Concerns: From Environmental Occurrence to Human Exposure RunZeng Liu (Invited) Shandong University, China
15:50-16:15	H32	Uncovering Halogenated Nucleotides and Nucleobases as Emerging Disinfection Byproducts in Drinking Water Wei Wang (Invited) Zhejiang University, China
16:15-16:30	H33	High-throughput Screening and characterization of trace environmental pollutants and fine particulate matter by mass spectrometry Xiu Huang (Oral) Sichuan University, China
16:30-16:45	H34	The Study on Lithium Pollution under Carbon Neutrality Strategies Xuezhi Yang (Oral) Hangzhou Institute for Advanced Study, University Of Chinese Academy Of Sciences
16:45-17:00	H35	Spatial and temporal trends of polychlorinated naphthalenes in the Arctic atmosphere at Ny-Ålesund and London Island, Svalbard Tariku Bekele Gebru (Oral) Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China; University of Chinese Academy of Sciences, China; Mekelle University, Ethiopia
17:00-17:10	/	Poster Awards/Closing Remarks Chair: Prof. Qian LIU
17:10	Adjourn	

SCHEDULE OF
SESSIONS

H
ENVIRONMENTAL
ANALYSIS

CHAIR:
Prof. Qian LIU

POSTER SESSION

Theme: Environment and Health

Dates: Sept.7-8,2023

Location:
Room W103,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

H-P1

DECISIVE INFLUENCE OF STABLE SOIL ORGANIC MATTER COMPONENTS ON THE DISTRIBUTION OF PERSISTENT ORGANIC POLLUTANTS IN GLOBAL BACKGROUND SOILS
Lu JIANG1, Jitao LV1, Yawei WANG*1,2,3 and Guibin JIANG1,2

1 Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085
2 School of Environment, Hangzhou Institute for Advanced Study, UCAS, Hangzhou 310000
3 Institute of Environment and Health, Jiangnan University, Wuhan 430056, China
E-mail: ywwang@rcees.ac.cn

H-P2

QUANTITATIVE DETECTION OF TOTAL FLUORINE IN PFAS BY ICP-MS/MS
Shuofei DONG*1

1 Agilent Technologies Co. Ltd (China), Beijing 100102, China
E-mail: shuo-fei.dong@agilent.com

H-P3

THE NATIONAL SITUATION OF HEAVY METAL DETECTION CAPABILITY OF SOIL IN CHINA DURING THE RECENT FIVE YEARS
Xiaofeng WU1, Shuang MA2*, Yibing LV1

1 State Environmental Protection Key Laboratory of Quality Control in Environmental Monitoring, China National Environmental Monitoring Center, Beijing 100012, China
2 Pony Testing International Group Co., Ltd, Beijing 100095, China
E-mail: wuxf@cnemc.cn mashuangqhu@163.com

H-P4

GLOBAL ANALYSIS THE CATALYSIS PERFORMANCE OF PD SITES ON AU@PD NANOPATICLES
Xiaoling ZHANG,1, 4 Wei RAN,1, 4 Jiefang SUN,3 Shiwei LI,1, 4 Jie CHEN,5 Guangzhi HE,1, 4 Jingfu LIU,1, 2 Bing SHAO,3 Rui LIU, *1, 2, 4 and Guibin JIANG1, 2, 4
1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences Chinese Academy of Sciences, Beijing 100085, China
2 College of Environment, Hangzhou Institute for Advanced Study, UCAS, Hangzhou 310000, China
3 Beijing Center for Disease Prevention and Control, Beijing 100013, China
4 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: : ruiliu@rcees.ac.cn

H-P5

NOVEL INSIGHT INTO THE ADVERSE EFFECTS OF PER- AND POLYFLUOROALKYL

SUBSTANCES ON THE KIDNEY VIA HUMAN URINE METABOLOMICS
Anen HE1 and Yawei WANG*1
1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
E-mail: ywwang@rcees.ac.cn

H-P6

IDENTIFICATION OF CARBONYL COMPOUNDS IN ATMOSPHERIC PARTICULATE MATTER BY HIGH-RESOLUTION MASS SPECTROMETRY
Bao Zhu1,2,3, Ting Ruan1,2* and Guibin Jiang1,2,3
1 State Key Laboratory of Environmental Chemistry and Eco-toxicology, Research Center for Eco-environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
2 University of Chinese Academy of Sciences, Beijing 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study, University of Chinese Academy of Sciences, Hangzhou 310024, China
E-mail: baozhu@rcees.ac.cn

H-P7

A POROUS AGAROSE LAYERED MAGNETIC GRAPHENE OXIDE NANOCOMPOSITE FOR VIRUS RNA MONITORING IN WASTEWATER
Benyu HE1,2, Xing ZHANG3,Lingfeng WANG1, 4, Jianbo SHI1, 4, Hanyong PENG1, 4*
1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
2 Institute of Environment and Health, Jiangnan University, Wuhan, Hubei 430056, China
3 College of Urban and Environmental Science, University of Northwest, Xi'an 710127, China.
4University of Chinese Academy of Sciences, Beijing 100049, China.
*E-mail: hypeng@rcees.ac.cn

H-P8

PERSONAL EXPOSURE MONITORING BASED ON FLEXIBLE WEARABLE SENSORS FOR ESTIMATING AIR POLLUTION-INDUCED CARDIOVASCULAR HEALTH EFFECTS
Caicheng Long1, Yanhuan Zhu1, Wende Ma1, Qian Liu*1,2 and Guibin Jiang1,2
1 Research Center for Eco-Environmental Sciences of Chinese

Academy of Sciences, Beijing 10085, China
2 University of Chinese Academy of Sciences, Beijing 100190, China
E-mail: qianliu@rcees.ac.cn

H-P9

SCREENING AND IDENTIFICATION OF EMERGING CONTAMINANTS IN WASTEWATER TREATMENT PLANT EFFLUENTS USING UHPLC/Q-TOF
Chaofei Zhu1, Hongli Fan2, Wenlong Yang1, Bing Du1*, Meiling Lu2
1 State Environmental Protection Key Laboratory of Dioxin Pollution Control, National Research Center for Environmental Analysis and Measurement, Environmental Development Center of the Ministry of Ecology and Environment, Beijing 100029
2 Agilent Technologies (China) Limited, Inc., Beijing, 100102
E-mail: thudubing@hotmail.com

H-P10

A NOVEL DNAZYME FEEDBACK SELF-AUTOCATALYSIS SYSTEM FOR AMPLIFIED DETECTION OF MICRORNA
Fan YANG1, 2, Hang XIAO1, 3, Wenjin XIE1, 3, Jinhua LI1, 2, Juan LI1, 2, Hanyong PENG1, 3*
1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China.
2 School of Public Health, Jilin University, Changchun, Jilin, 130021, China.
3 University of Chinese Academy of Sciences, Beijing 100049, China.
E-mail: hypeng@rcees.ac.es.cn

H-P11

SENSITIVE CRISPR-CAS12A ASSISTED IMMUNOASSAY FOR SMALL MOLECULE DETECTION IN HOMOGENEOUS SOLUTION
Fengxi ZHU1,2, Qiang ZHAO*1,2,3
1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, China
2 University of Chinese Academy of Sciences, Beijing, 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study, UCAS, Hangzhou 310024, China
E-mail: qiangzhao@rcees.ac.cn

H-P12

EXPOSURE TO NOVEL BROMINATED AND ORGANOPHOSPHATE FLAME RETARDANTS AND ASSOCIATIONS WITH TYPE 2 DIABETES IN EAST CHINA

Gaoxin ZHANG1, Yingming LI*1, and Qinghua ZHANG1
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
E-mail: ymli@rcees.ac.cn

H-P13

A DNAZYME WALKER-BASED COMPETITIVE IMMUNOASSAY FOR
SMALL MOLECULES DETECTION
Han Pang1,2, Qiang Zhao1,2,3
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China
2 University of Chinese Academy of Sciences, Beijing 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study,
University of Chinese Academy of Sciences, Hangzhou 310024,
China
Email: qiangzhao@rcees.ac.cn

H-P14

COMPETITIVE FLUORESCENCE ASSAY FOR CADMIUM(II)
DETECTION BASED ON APTAMER STRUCTURE-SWITCHING
Hao Yu1,2, Qiang Zhao*1,2,3
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China
2 University of Chinese Academy of Sciences, Beijing, 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou, 310024, China
E-mail: qiangzhao@rcees.ac.cn

H-P15

DIFFERENTIAL METABOLISMS OF GLYCOSYLATED TBBPAS IN
HUMAN LIVER MICROSOMES
Hongrui ZHANG1,3, Xingwang HOU1, Jiyao LIU*1,2,3 and Guibin
JIANG1,2,3
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, P.O. Box 2871, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310000, China
3 College of Resources and Environment, University of Chinese
Academy of Sciences, Beijing 100049, China
E-mail: liujy@rcees.ac.cn

H-P16

METAL ION AFFINITY SPHERICAL NUCLEIC ACIDS FOR ARSENIC
ENRICHMENT
Hongwei ZHANG1, 2, Lingfeng WANG1, 2, Hanyong PENG1, 2*
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China.
2 University of Chinese Academy of Sciences, Beijing 100049, China.
E-mail: hypeng@rcees.ac.cn

H-P17

VISUALIZED ANALYSIS OF SOIL-NANOMATERIALS MICRO-
INTERFACIAL INTERACTION IN SOIL TEDEDIATION PROCESS
Hongyun NIU1, Li LI1, Huiwen JIN1, and Yaqi CAI*1,2,3
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China
2 University of Chinese Academy of Sciences, Beijing, 100049, China
3 Institute of Environment and Health, Hangzhou Institute for
Advanced Study, UCAS, Hangzhou, Zhejiang Province, 310013, China
E-mail: caiyaqi@rcees.ac.cn

H-P18

A DNAZYME NANOMOTOR FOR IN SITU DETECTION OF
MYELOPEROXIDASE/HYPOCHLORITE IN LIVING CELLS
Huifang HAO1,2, Aijiao YUAN1,2, Leyuan CHEN1,2, Wenjing XIE1,
Hanyong PENG*1,2
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China.
2 University of Chinese Academy of Sciences, Beijing 100049, China.
E-mail: hypeng@rcees.ac.cn

H-P19

APPLICATION OF LC-MS-MS IN ENVIRONMENTAL MONITORING
STANDARDS OF CHINA
Jizhou WU1*, Yong LIU1, Jianwen LUAN1,2
1 China testing holding group Jingcheng Testing Co. , Ltd. , No. 6,
Yiheng West Road, Panyu District, Guangzhou City, Guangdong
Province, China
2 China Testing & Certification International Group Co.,Ltd., No. 1,
Guan Zhuang Dong Li, Chaoyang District, Beijing, China
E-mail: wujz@beijingtest.com

H-P20

FLUORESCENCE AND COLORIMETRIC ANALYSIS USING APTAMER
AND GOLD NANOPARTICLES FOR RAPID DETECTION OF

B-ESTRADIOL
Leyuan CHEN1,2,3, Aijiao YUAN1,3, Wenjing LIAO1,2,3, Hanyong
PENG1,3*
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Academy Study,
University of Chinese Academy of Sciences, Hangzhou 310024,
China
3 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: hypeng@rcees.ac.cn

H-P21

OCCURRENCE OF LEGACY AND EMERGING CONTAMINANTS IN
FEED AND FOOD AND THEIR RANKING PRIORITIES FOR HUMAN
EXPOSURE
Li Hongting, Yin Yuhan, Li Xiaomin
lixiaomin@caas.cn

H-P22

DETECTION OF BLACK CARBON PARTICLES ON HUMAN
OCULAR SURFACE BY LASER DESORPTION IONIZATION MASS
SPECTROMETRY
Lin LIU1, Yue LIN1, Qian LIU1*
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, China
E-mail: qianliu@rcees.ac.cn

H-P23

ENVIRONMENTAL IMPACTS OF SOLAR CELL DEVELOPMENT
Yacong LIU1,2, Qian LIU*1, Guibin Jiang1,2
State Key Laboratory of Environmental Chemistry and Ecotoxicology,
Research Center for Eco-Environmental Sciences, Chinese Academy
of Sciences, Beijing 100085, China
College of Sciences, Northeastern University, Shenyang, 110819,
China
E-mail: qianliu@rcees.ac.cn

H-P24

PERCUTANEOUS PENETRATION AND TRANSDERMAL DELIVERY OF
BENZOTRIAZOLE ULTRAVIOLET ABSORBENTS IN SUNSCREEN AND
ISOLATION COSMETICS
Lu Bai,1,2 and Yawei Wang1,2,*
1. School of Environment, Hangzhou Institute for Advanced Study,
University of Chinese Academy of Sciences, Hangzhou 310000,

China
2. State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
E-mail: ywwang@rcees.ac.cn.

H-P25

CEMENT SOLIDIFICATION OF WATER PLANT SLUDGE AND
DOMESTIC WASTE INCINERATION BOTTOM ASH
LU Peng, XING Li-Nan, LI Jun, CAO Qi-Guang, XIE Guo-Li, ZHENG
Ming-Yue, ZHANG Xiao-Hui, YANG Dong-Qing, LI Song, YUAN
Yuan, CHEN Hong-Mei, MING Lang, LI Jia-le, WANG Zhen, ZHANG
Yu-xin
Beijing Polytechnic, Beijing 100176, China
E-mail: lupeng531@163.com

H-P26

APTAMER MICROSCALE THERMOPHORESIS SENSOR FOR
OXYTETRACYCLINE DETECTION
Meiting Kang1,2,3, Hao Yu, 1,2, Qiang Zhao1,2,3*
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 University of Chinese Academy of Sciences, Beijing 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310000, China
E-mail: qiangzhao@rcees.ac.cn

H-P27

NON-TARGETED SCREENING AND OCCURRENCE OF PORT
SEDIMENTS BASED ON GC-QTOF/MS
Mu Haichao1, Sun Helin1, Wang Wenwen2, Lu Meiling2, Liu Xing1*,
Yao Ziwei1
1 Key Laboratory for Ecological Environment in Coastal Areas,
Ministry of Ecology and Environment, National Marine Environmental
Monitoring Center, Dalian 116023, China
2 Agilent Technologies (China) Ltd., Inc., Beijing, 100102, China
E-mail: 931043841@qq.com

H-P28

CHEMICAL MULTI-FINGERPRINTING AND POLLUTION
CHARACTERISTICS OF ANTHROPOGENIC MAGNETITE
NANOPARTICLES IN URBAN ATMOSPHERE
Qinghua Zhang1,2, Hang Yang2, Lin Liu2, Dawei Lu2, Qian Liu*2,
Guibin Jiang2
1 College of Geography and Environmental Science, Henan

University, Kaifeng 475504, China.

2 Research Center for Eco-Environmental Science Chinese Academy
Science, Beijing, 100085, China.
E-mail: qianliu@rcees.ac.cn

H-P29

CHARACTERIZATION OF DISSOLVED ORGANIC MATTER
COMPOSITION IN LANDFILL LEACHATE UNDER ENVIRONMENTAL
AND MICROBIAL EFFECTS
Qirui ZHANG¹, 2, Jitao LV^{*1}, 2, Yawei WANG¹, 2, Guibin JIANG¹, 2
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 College of Resources and Environment, University of Chinese
Academy of Sciences, Beijing 100049, China
E-mail: jtlv@rcees.ac.cn

H-P30

APTAMER-TARGET BINDING ACTIVATING RNA-CLEAVING
DNAZYME FOR AFLATOXIN B1 DETECTION
Qiuyi Cheng^{1,2}, Qiang Zhao^{1,2,3*}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China
2 University of Chinese Academy of Sciences, Beijing, 100049, China
3 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310024, China
E-mail: qiangzhao@rcees.ac.cn

H-P31

RATIOMETRIC FLUORESCENCE AND COLORIMETRIC DUAL
MODE PROBES FOR REAL-TIME AND VISUAL DETECTION OF
FORMALDEHYDE BY SMARTPHONE AND HYDROGEL SENSOR
Shengnan Yin and Zheng Li^{*}
Institute for Advanced Study, Shenzhen University, Shenzhen,
Guangdong 518060, China
E-mail: zhengli24@szu.edu.cn

H-P32

SIMULTANEOUS DETERMINATION OF 43 KINDS OF ANTIBIOTICS IN
SEAWATER BY UPLC-MS/MS
Tianyu CHEN¹ , 2, Juan LI¹, Yawei WANG^{1*}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, CHINA
2 University of Chinese Academy of Sciences, Beijing, CHINA
E-mail: ywwang@rcees.ac.cn

H-P33

ENRICHMENT-DEGRADATION OF TBBPA BY ZRO₂/ZNIN₂S₄
ADSORPTIVE PHOTOCATALYST WITH UNEXPECTED SYNERGISTIC
MASSIVE GENERATION OF H₂O₂
Silong Wang^{1,2}, Jin Xu ^{1,2}, Li Xiong^{1,4}, Chengzhuo Yu^{1,2,3}, Lixia
Zhao^{1,2,3,4*}, Yawei Wang^{1,2,3,4}
1 State Key Laboratory of Environmental Chemistry and Eco-
toxicology, Research Center for Eco-Environmental Sciences, Chinese
Academy of Sciences, Beijing, 100085
2 University of Chinese Academy of Sciences, Beijing 100049
3 School of Environment, Hangzhou Institute for Advanced Study,
University of Chinese Academy of Sciences, Hangzhou, 310024
4 Sino-Danish College, University of Chinese Academy of Sciences,
Beijing, 100049
E-mail: zlx@rcees.ac.cn

H-P34

PRE-TREATMENT METHOD FOR POTASSIUM ISOTOPIC ANALYSIS IN
BIOLOGICAL SAMPLES
Weichao WANG^{1,2}, Dawei LU¹, Qian LIU^{1*}, Guibin JIANG^{1,2}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310024, China
E-mail: qianliu@rcees.ac.cn

H-P35

NON-TARGET SCREENING OF ORGANIC POLLUTANTS IN HUMAN
MILK BY GC-QTOF-MS
Xin CHENG^{1,2}, Lirong GAO^{*1,2}, Wenwen WANG³, Meiling LU³ and
Minghui ZHENG^{1,2}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 College of Resources and Environment, University of Chinese
Academy of Sciences, Beijing 100049, China
3 Agilent Technologies, Inc., Beijing 100102, China
E-mail: gaolr@rcees.ac.cn

H-P36

MAGNETIC GRAPHENE OXIDE BASED BIOSENSOR FOR RAPID
DETECTION OF ESTRADIOL CONTAMINANTS
Xinyu JIN¹, 2, Zhaojia DENG¹, 2, Wenjin XIE¹, 2, Hanyong PENG¹, 2^{*}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, 100085, China.

2 University of Chinese Academy of Sciences, Beijing 100049, China.
* Corresponding authors.
E-mail: hypeng@rcees.ac.cn

H-P37

CHARACTERISTIC ASSOCIATED ORGANIC MATTER IDENTIFICATION
OF MAGNETIC PARTICLES FROM DIFFERENT SOURCES BASED ON
MALDI-TOF MS
Hang YANG¹, Ke Min¹, Qian LIU^{1*}, Guibin JIANG¹
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
E-mail: qianliu@rcees.ac.cn

H-P38

IDENTIFICATION OF SILOXANE DEGRADATION PRODUCTS IN
WATER SAMPLES BASED ON FT-ICR MS TECHNIQUE
Yiyi Li^{1,2}, Lin Xu^{1*}, Yaqi Cai¹
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310024, China.
E-mail: linxu@rcees.ac.cn

H-P39

PARSING AND IDENTIFICATION OF CHARACTERISTIC POLLUTANTS
IN PETROCHEMICAL FACILITIES BY NON-TARGET SCREENING
USING GC-OBITRAP MASS SPECTROMETRY
Youliang Tian^{1,2}, Yaqi Cai¹ and Lin Xu^{*1}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310024, China.
E-mail: linxu@rcees.ac.cn

H-P40

IDENTIFICATION OF CARBONYL COMPOUNDS IN DISSOLVED
ORGANIC MATTER BASED ON FT-ICR MS
Shiyang YU^{1,2}, Shanshan TANG^{1,2}, Jitao LV^{1,2,*}, Feifei LI ^{1,2} and
Yawei WANG^{1,2}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, CHINA
2 University of Chinese Academy of Sciences, Beijing, 100049
E-mail: jtlv@rcees.ac.cn

H-P41

EVIDENCE FOR AMBIENT ULTRAFINE PARTICLES PENETRATING THE
AIR-BLOOD BARRIER AND PLACENTAL BARRIER
Yue Lin^{1,2}, Qian Liu^{*1}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 School of Environment, Hangzhou Institute for Advanced Study,
UCAS, Hangzhou 310024, China
E-mail: qianliu@rcees.ac.cn

H-P42

IDENTIFICATION AND QUANTIFICATION OF MULTI-MEDIA BLACK
CARBON BASED ON LASER DESORPTION IONIZATION MASS
SPECTROMETRY
Zhao SHU^{1,2}, Qian LIU^{*1}, Guibin JIANG¹
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
2 College of Resources and Environment, University of Chinese
Academy of Sciences, Beijing 100049, China
E-mail: qianliu@rcees.ac.cn

H-P43

CHARACTERISTICS OF HALOGENATED CARBAZOLES IN SEDIMENTS
OF YAER LAKE
Zichun Huang^{1,2}, Guorui Liu^{1,2}, Minghui Zheng^{1,2*}
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing, China
2 Institute of Environment and Health, Hangzhou Institute for
Advanced Study, UCAS, Hangzhou, China
*E-mail: zhengmh@rcees.ac.cn

H-P44

APPLICATION OF NATURAL STABLE ISOTOPE TECHNOLOGY IN
HEALTH STUDY
Zigu CHEN¹, Qian LIU^{*1}, and Guibin JIANG¹
1 State Key Laboratory of Environmental Chemistry and
Ecotoxicology, Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences, Beijing 100085, China
E-mail: qianliu@rcees.ac.cn

H-P45

SHARP SILICA FRAGMENTS IN WHEAT FLOUR CONTAMINANTS
AND ESOPHAGEAL CANCER IN NORTH CHINA
Shenxi Deng ^{1,2}, Qian Liu ^{1*}, Linwei Tian ^{2*}

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China
2 School of Public Health, The University of Hong Kong, Hong Kong SAR, China
E-mail: shenxideng@connect.hku.hk

H-P46

IMAGING OF THE DISSOLUTION OF SILVER NANOPARTICLES IN ENTEROCYTES
Mengying Qi^{1,2,3}, Xudong Wang^{1,3}, Xiangyu Wang^{1,2,3}, Lining Xu^{2,3}, Ming Xu^{*1,2,3}

1 School of Environment, Hangzhou Institute for Advanced Study, University of Chinese Academy of Sciences, Hangzhou 310024, China
2 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
3 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: mingxu@rcees.ac.cn (M. Xu)

H-P47

3D PRINTED DETACHABLE TARGET PLATES FOR LDI-TOF-MS DETECTION OF LIQUID CRYSTAL MONOMERS
Junpeng ZHANG^{1,2}, Lin ZHANG³, Bin HE^{1,2}, Ligang HU^{1,2*}, and Guibin JIANG^{1,2}

1 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, 100085, China
2 College of Resources and Environment, University of Chinese Academy of Sciences, Beijing, 100049, China
3 Shimadzu China Innovation Center, Beijing, 100020, China
E-mail: lgheu@rceec.ac.cn

H-P48

SYNERGISTIC EFFECT OF FLOWER-LIKE MNFE₂O₄/MOS₂ ON PHOTO-FENTON OXIDATION REMEDIATION OF TETRACYCLINE POLLUTED WATER
Xiaoyu Wei^{1,2,3}, Ming Xu^{*1,2,3}
1 School of Environment, Hangzhou Institute for Advanced Study, University of Chinese Academy of Sciences, Hangzhou 310024, China
2 State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
3 University of Chinese Academy of Sciences, Beijing 100049, China
E-mail: mingxu@rcees.ac.cn (M. Xu)



SCHEDULE OF SESSIONS

CHEMICAL METROLOGY AND REFERENCE MATERIALS

CHAIR:
Prof. Hongmei Li

ORAL LECTURES

Theme: Metrology for Worldwide Mutual Trust and Prosperity
Dates: Sept.7-8,2023
Location:
Room E203,
Academic Conference Area,
China International Exhibition Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Session 1: State-of-the-art RM Technology		
9:30-9:35	Opening Remarks by Prof.Hongmei Li	
9:35-10:05	I2	A Progress Report on Macromolecular Pure Substance Comparison Robert WIELGOSZ (Keynote) BIPM, France
10:05-10:35	I3	TBD Yunfeng Lv (Keynote) Center For Medical Device Evaluation. NMPA
10:35-10:50	Coffee Break/Poster session	
10:50-11:20	I4	Development and application of biomedical certified reference materials Hongmei Li (Keynote) National Institute of Metrology China
11:20-11:45	I5	Preparation of Fumonisin's Purity Reference Materials Songxue Wang Academy of National Food and Strategic Reserves Administration
11:45-12:00	I6	TBD Jingjing Lin Springer Nature
12:00-13:30	Lunch Break/ Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Session 2: Nutrition and Health		
13:30-14:00	I7	PA, a secondary hypertension that should be emphasized for screening Baorong Chen (Keynote) Beijing KingMed Diagnostics Group Co., Ltd
14:00-14:25	I8	Absolute Quantification of Total Hemoglobin in Whole Blood by HPLC-ICP-MS Liuxing Feng National Institute of Metrology China
14:25-14:50	I9	Determination of Structurally Related Impurity in Thymalfasin by LC-High Resolution MS Ming Li National Institute of Metrology China
14:50-15:10	I10	Rapid Membrane Separation Technique for Optimizing MALDI-MS Signal Reproducibility Zengnan Wu Tsinghua University
15:10-15:20	Coffee Break / Poster Session	
15:20-15:50	I11	Establishment of Reference Measurement Laboratory Yi Ju (Keynote) Shanghai Center for Clinical Laboratory
15:50-16:15	I12	Advances in Laboratory Detection of Cardiac Troponin Zhou Zhou Fuwai Hospital, CAMS & PUMC
16:15-16:40	I13	Nanobody-A versatile tool for disease diagnosis and therapeutics Jian Ma Harbin Medical University
16:40-17:00	I14	Comparison on Different Detectors for the Determination of Sulfur Hexafluoride by Gas Chromatography Susu Pan Beijing Institute of Metrology
17:00	Adjourn	

Date: Sep. 08, 2023 Am (Friday)		
Session 3: Green Manufacturing		
9:30-10:00	I15	TBD Qipeng Yuan (Keynote) Beijing University of Chemical Technology
10:00-10:30	I16	Bioreactor & Intelligent Biomanufacturing Yingping Zhuang (Keynote) East China University of Science and Technology
10:30-10:40	Coffee Break	
10:40-11:10	I17	Biosynthesis of glucosamineglycans in mammals and advanced synthetic biology Jinping Li (Keynote) Uppsala University
11:10-11:40	I18	Fundamentals and Applications of the Non-model Rhodococcus Chasis Cells Huimin Yu (Keynote) Tsinghua University
11:40-12:05	I19	Development of Oxygenated Additives Purity CRMs for Biodiesel Can Quan National Institute of Metrology China
12:10-13:30	Lunch Break/ Poster Session	
Date: Sep. 08, 2023 Pm (Friday)		
Session 3: Green Manufacturing		
13:30-14:00	I20	TBD Yuguang Du (Keynote) Institute of Process Engineering, CAS
14:00-14:30	I21	TBD Zhonghu Bai (Keynote) Jiangnan University
14:30-14:55	I22	Accelerating the Development of Agricultural Reference Materials, Facilitating High-Quality Advancement of Agriculture in China Liang Li Institute of Quality Standard and Testing Technology for Agro-Products, CAAS
14:55-15:10	Coffee break	
15:10-15:40	I23	Green bio-manufacturing of APIs for major disease control Yaping Xue (Keynote) Zhejiang University of Technology
15:40-16:05	I24	Research on Multi-scale Biological Measurement Techniques and Reference Materials Gang Liu Shanghai Institute of Measurement and Testing Technology
16:05-16:30	I25	Advanced Approaches and Applications of Quantitative NMR to Mitigate Biases from Chemical Interference Ting Huang National Institute of Metrology China
16:30-16:40	Adjourn	



BCEIA
学术报告会
ACADEMIC CONFERENCE



SCHEDULE OF SESSIONS

CHEMICAL METROLOGY AND REFERENCE MATERIALS

CHAIR:
Prof. Hongmei LI

POSTER SESSION

Theme: Metrology for Worldwide Mutual Trust and Prosperity

Dates: Sept.7-8,2023

Location:
Room E203,
Academic Conference Area,
China International Exhibition Center (Shunyi Hall), Beijing

I-P1

ACCURATE DETERMINATION OF TRACE WATER BY QUANTITATIVE NUCLEAR MAGNETIC RESONANCE

Kangni Wan1,2,, Ming Li1*, Ting Huang1, Wei Zhang1*, Tianji Zhang1, Xiuqin Li1, Haifeng Wang3, Juan Lv4

1.Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, People's Republic of China

2.College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, People's Republic of China

3.Centre of Environment Metrology, National Institute of Metrology, Beijing 100029, People's Republic of China

4.Bruker (Beijing) Scientific Technology

E-mail: zhw@nim.ac.cn

I-P2

STUDY OF NEW MATRIX CERTIFIED MATERIALS FOR ACCURATE DETERMINATION OF PFOS AND PFOA IN PRAWN MEAT POWDER

ChunYuan Huang1,2, Jian Zhou*1, YaXuan Liu2, Min Wang1, MengRui Yang1 and FuKai Li1

1 Institute of Quality Standard and Testing Technology for Agro-products of Chinese Academy of Agricultural Sciences, Key Laboratory for Quality and Safety of Agricultural Products, Ministry of Agriculture and Rural Areas, Beijing 100081, China.

2 College of Food Science and Bioengineering, Tianjin Agricultural University, Tianjin 300384, China.

E-mail: 3507603424@qq.com

I-P3

RESEARCH ON THE DETECTION OF CHEMICAL ANTIHYPERTENSIVE DRUGS IN HEALTH FOOD

Qi WEI1, Fuhai SU*1, Xin ZHU1

1 National Institute of Metrology, Beijing 100029, China

E-mail: sufh@nim.ac.cn

I-P4

PURITY DETERMINATION OF RECOMBINANT HUMAN GROWTH HORMONE BY HYDROLYSIS METHOD

Jiahui LI1, Qiang FEI*1, Ming LI*2, Jingkang LI1, Xiaomin LIU1

1 College of Chemistry, Jilin University, Changchun 130012, P. R. China

2 Division of Chemical Metrology & Analytical Science, National Institute of Metrology, Beijing 100029, P. R. China

Email: mingutah@hotmail.com; feiqiang@jlu.edu.cn

I-P5

STANDARDIZATION OF SERUM ESTRADIOL AND NATIONAL INTER-LABORATORY COMPARISON BASED ON ID-LC-MS/MS REFERENCE MEASUREMENT PROCEDURE

Jianyi LIU, Lianhua SHI and Dewei SONG*

National Institute of Metrology, Beijing, 100029, P.R.China
E-mail: liujy@nim.ac.cn, songdw@nim.ac.cn

I-P6

DEVELOPMENT OF OXYGENATED ADDITIVES PURITY CERTIFIED REFERENCE MATERIALS FOR BIODIESEL
Han YANG1, Wenxi Li1,Lianhua SHi2,Shuli Liu3,Can Quan1,*
1 NRCCRM, National Institute of Metrology, Beijing 100029, China
2 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
3 Zhonghuan Shengda Environmental Technical Group Co., Ltd,Beijing, China
*Corresponding author E-mail: quancan@nim.ac.cn

I-P7

PREPARATION OF HOMOGENEOUS DOPED NI POWDERS FOR POWER METALLURGY BY USING DOPING METHOD
Yihe LIU, Jianying ZHANG, Tao ZHOU
National Institute of Metrology, Beijing 100029, China
E-mail: zhangjianying@nim.ac.cn; zhoutao@nim.ac.cn

I-P8

DETERMINATION OF WATER CONTENT IN HEAVY CRUDE OIL BY THERMOMETRIC TITRIMETRY
Han ZHENG1, Haifeng WANG*1
1 National Institute of Metrology, China (NIM), 100029 Beijing, China
E-mail: wanghf@nim.ac.cn

I-P9

AN EMULSIFICATION/DEMULSIFICATION CLEAN-UP STRATEGY COMBINED WITH LOW PRESSURE GAS CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY FOR ANALYSIS OF 104 PESTICIDES IN DAIRY PRODUCTS
Hao PENG1,2, Guoying WEI1, Sheng WANG*2, Hongmei LI2
1 College of Materials and Chemistry, China Jiliang University, Hangzhou, China
2 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing, China
E-mail: wangsh@nim.ac.cn

I-P10

ACCURATE MEASUREMENT OF PROGASTRIN-RELEASING PEPTIDE BY ISOTOPE DILUTION LC-MS/MS
Huan Yao1, Xiao Peng1, Hongmei Li*1
1Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing, 100029, P.R.China
E-mail: lihm@nim.ac.cn

I-P11

STUDY ON CARAZOLOL AND SASAPYRINE IN SOLUTION, AND CHARACTERIZATION OF NOVEL INTERACTION COMPOUND
Juling Chen, Wenshuo Wang, Jianzhi Wang, Lu Chen, Yin Xu*
Alta ScientiPc Co., Ltd, Tianda S&T Park, Suite C6-301, 80 The Fourth Street, TEDA, Tianjin 300457, China.
E-mail: yin.xu@altasci.com.cn

I-P12

SIMUTANEOUS DETERMINATION OF NENONICOTINOID AND CARBAMATE PESTICIDES IN FREEZE-DRIED CABBAGE BY MODIFIED QuEChERS AND ULATRA-PERFORMANCE LIQUID CHAOMATOGRAPHY-TANDEM MASS SPECTROMETRY
Bingxin YANG1,2, Sheng WANG1, Wen MA3 , Guanlin LI4, Mengling TU1, Zhiyong MA2*, Xianjiang LI1*
1 Division of Metrology in Chemistry, National Institute of Metrology, Beijing 100029, China
2 College of Chemical Engineering, Beijing University of Chemical Technology, Beijing 10029, China
3 School of Pharmaceutical Sciences, Peking University, Beijing 100191, China
4 College of Plant Protection, Shandong Agricultural University, Tai'an 271018, ChinaE-mail: mazhy@mail.buct.edu.cn, lixianjiang@nim.ac.cn

I-P13

A META-ANALYSIS OF THE ENVIRONMENTAL DISTRIBUTION OF 6PPD AND 6PPD QUINONE AND ITS PRELIMINARY INVESTIGATION IN HUMAN URINES
Chunyu LIU1 and Shanjun SONG*1
1 National Institute of Metrology, Beijing 100029, China
Email: songsj@nim.ac.cn

I-P14

STUDY ON THE SPATIAL DISTRIBUTION ANALYSIS METHOD OF ELEMENTAL COMPOSITION BASED ON GLOW DISCHARGE MASS SPECTROMETRY
Jianzheng YANG, YiHe LIU, JianYing ZHANG and Tao ZHOU*
Division of Metrology in Chemistry, National Institute of Metrology, Beijing 100013, China
E-mail: zhoutao@nim.ac.cn

I-P15

DEVELOPMENT OF A ROBUST METHOD FOR DOPING METALS INTO NANOPARTICLES ENABLING DETECTION AT THE SINGLE-PARTICLE LEVEL
Lijie DONG1, Shanjun SONG1 and Jingbo CHAO*1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, China, Beijing 100029, China
E-mail: chaojb@nim.ac.cn

I-P16

CANDIDATE REFERENCE METHOD FOR DETERMINATION OF NINE CATEGORIES OF PESTICIDES IN CUCUMBER BY GC- AND LC-MS/MS
Sheng Wang1*, Hongmei Li1, Xianjiang Li1, Zhen Guo1, Hao Peng2, Guoying Wei2
1 Division of Metrology in Chemistry, National Institute of Metrology, Beijing, 100029, China.
2 College of Materials and Chemistry, China Jiliang University, Hangzhou, China
E-mail: wangsh@nim.ac.cn

I-P17

DESIGN AND SYNTHESIS OF CELLULOSE MOLECULAR WEIGHT STANDARDS
Yan ZHOU, Xin QI, and Hai WANG*
Center for environmental metrology, National Institute of Metrology, Beijing 100029, China
E-mail: wanghai@nim.ac.cn

I-P18

CERTIFICATION OF TRACE ELEMENTS IN A ZIRCONIUM ALLOY CERTIFIED REFERENCE MATERIAL CANDIDATE
Yuanyuan FENG1,2, Yihe LIU1, Tao ZHOU1, Jianying ZHANG1, Penghui LI2
1 National Institute of Metrology, Beijing 100029, China; 2 Tianjin University of technology, Tianjin 300384, China
E-mail: zhangjianying@nim.ac.cn; lipenghui406@163.com

I-P19

ACCURATE DETERMINATION OF TRACE CADMIUM IN NI-BASED SUPERALLOYS BY QUADRUPOLE INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY (Q-ICP-MS) USING OXYGEN REACTION MODE
Yuanyuan FENG1,2, Yihe LIU2, Jianying ZHANG2, Penghui LI1
1 Tianjin University of technology, Tianjin 300384, China ; 2 National Institute of Metrology, Beijing 100029, China
E-mail: zhangjianying@nim.ac.cn; lipenghui406@163.com

I-P20

DETERMINATION OF CHLORINE AND BROMINE IN EPOXY RESINS BY ONLINE COMBUSTION ION CHROMATOGRAPHY
Jingbo CHAO*1, Naijie SHI1, and Haifeng WANG1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, China, Beijing 100029, China
E-mail: chaojb@nim.ac.cn

I-P21

RESEARCH ON KEY TECHNIQUES FOR ACCURATE DETERMINATION OF DICOFOL IN TEA
Shuai He, Qi Wei, Jing Gao, Hua Tang*
National Institute of Metrology, 18 Beisanhuandonglu, Chaoyang District, 100029, Beijing, China
Correspondence:
Email: tanghua@nim.ac.cn

I-P22

STUDY ON EVALUATION TECHNIQUES FOR QUALITY INSPECTION OF FOOD MATRIX REFERENCE MATERIALS
Bo ZHAO*, Hai LU, Hui JIAO
National Institute of Metrology, Beijing 100029, China
E-mail: zhaobo@nim.ac.cn

I-P23

A NEW EVALUATION METHOUD OF GRADIENT ERROR FOR HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

HaihongHe and Haifeng Zhou
Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
E-mail: hehh@nim.ac.cn

I-P24

ACCURATE QUANTIFICATION OF PROCALCITONIN IN SERUM BASED ON MAGNETIC BEAD ENRICHMENT BY ISOTOPE DILUTION MASS SPECTROMETRY METHOD
Ke He 1,2, Qi Zhang 1,2, Haofeng Sun 1,3, Jianyi Liu 1,2, Lei Yang1,2, Dewei Song *1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
2 School of Chemical Engineering, Beijing University of Chemical Technology, Beijing 10029, P.R. China
3 School of Chemical and Engineering, Nanjing University of Science and Technology, Jiangsu 210094, P.R. China
E-mail: songdw@nim.ac.cn

I-P25

RESEARCH PROGRESS OF NEONICOTINOID PESTICIDES CERTIFIED REFERENCE MATERIALS
Mengling TU1, Bingxin YANG1,2, Yunxiao ZHU1,3, Xianjiang LI*,1
1 Food Safety Laboratory, Division of Metrology in Chemistry, National Institute of Metrology, Beijing 100029, China
2 Beijing State Key Laboratory of Organic-Inorganic Composites, College of Chemical Engineering, Beijing University of Chemical Technology, Beijing 10029, China
3 State Key Laboratory of Heavy Oil Processing, College of Chemical Engineering and Environment, China University of Petroleum, Beijing 102249, China
E-mail: lixianjiang@nim.ac.cn

I-P26

DEVELOPMENT OF GAS CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY AS A CANDIDATE REFERENCE METHOD FOR THE ACCURATE DETERMINATION OF FATTY ACID CONTENTS IN INFANT FORMULA
Mengqian Xu1,2, Yan Gao1, Xiuqin Li1*, Shuyu Liu2*, Sheng Wang1, Qinghe Zhang1
1 Division of Metrology in Chemistry, National Institute of Metrology, Beijing, 100029, China.
2 School of Chemistry and Chemical Engineering, Shanghai University of Engineering Science, Shanghai 201620, China
E-mail: lixq@nim.ac.cn, liushuyu1219@163.com

I-P27

DEVELOPMENT OF ID-LC-MS/MS QUANTITATIVE METHOD FOR RECOMBINANT HUMAN INTERLEUKIN-6 (IL-6)
Qi Zhang 1, Jianyi Liu 1, Haofeng Sun 1,2, Ke He 1,3, Lei Yang 1,3, Dewei Song *1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, (Key Laboratory of Chemical Metrology and

Applications on Nutrition and Health for State Market Regulation)
Beijing 100029, China
2 School of Chemical and Engineering, Nanjing University of Science and Technology, Jiangsu 210094, P.R. China
3 School of Chemical Engineering, Beijing University of Chemical Technology, Beijing 10029, P.R. China
E-mail: songdw@nim.ac.cn

I-P28

QUANTIFICATION OF D-DIMER IN HUMAN PLASMA BASED ON ISOTOPE DILUTION MASS SPECTROMETRY
Rong Zhao1, Mengran Li1,2, Hongmei Li *1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, (Key Laboratory of Chemical Metrology and Applications on Nutrition and Health for State Market Regulation) Beijing 100029, China
2 School of Chemistry, Beijing University of Chemical Technology, Beijing, 100029, P.R.China.
E-mail: lihm@nim.ac.cn

I-P29

STUDY ON THE SYNTHESIS OF CALCIFEDIOL-D6
Wenzhe SHAO1,2, Lei ZHANG1,2*, Shilei HAN1,2*
1 Alta ScientiPc Co., Ltd, Tianda S&T Park, Suite C6-301, 80 The Fourth Street, TEDA, Tianjin 300457, China.
2 Alta Institute of Reference Materials, Tianda S&T Park, Suite C5-405, 80 The Fourth Street, TEDA, Tianjin 300457, China.
E-mail: lei.zhang@altasci.com.cn, shilei.han@altasci.com.cn

I-P30

DEVELOP OF A MATRIX CERTIFIED REFERENCE MATERIAL FOR SELENOMETHINONE AND TOTEL SELENIUM CONTENT IN SE-ENRICHED YEAST WITH DIFFERENT VALUE ASSIGNMENT
Xiao Li1,2, Bo Zhao1, Hai Lu1, Chao Wei1, Huanhuan Chen1, Wei Cai1, Qinghe Zhang1*, Ximing Luo2
1 National Institute of Metrology, Beijing, 10029, China
2 School of Ocean Sciences, China University of Geosciences (Beijing), Beijing 100083, China
E-mail: lixiao@nim.ac.cn, zhangqh@nim.ac.cn

I-P31

DEVELOPMENT OF AN MODIFY QUECHERS METHOD FOR RAPID AND ACCURATE DETERMINATION OF VITAMINS A AND E IN INFANT FORMULA
Xiaotong ZHAO1,2 Xiaomin Li*1, Qinghe ZHANG1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing, 100029, China
2 Beijing University of Chemical Technology, Beijing, 100029, China
E-mail: lixm@nim.ac.cn

I-P32

Characterization of polyethyleneglycol diglycidyl ether (PEGDE) substituted hyaluronic acid hydrogels by an HPLC-MS/MS method

Yiyang WU, Tianji ZHANG*, Ying KAN and Hongmei LI*
National Institute of Metrology, Beijing, 100029, P.R.China
E-mail: zhangtianji@nim.ac.cn, lihm@nim.ac.cn

I-P33

DEVELOPMENT OF STANDARD MATERIAL FOR TRIPROPYL PHOSPHATE
Yuebing WAN1,2, Xiuqin Li1, Yan ZHANG1, Kangcong Li1, Qinghe ZHANG1*
Division of Chemical Metrology, National Institute of Metrology, Beijing, 100029, China
College of Chemistry and Chemical Engineering, Qiqihar University, Qiqihar 161006, China
E-mail:zhangqh@nim.ac.cn

I-P34

THERMOGRAVIMETRY-GAS CHROMATOGRAPHY-MASS SPECTROMETRY FOR THE ANALYTICAL DETECTION OF MICROPLASTICS IN SEDIMENTS
Yuhui LIU1, Limei CAI1, Gengyu Li1, Zhuo HAN1, and Shanjun SONG*1
1 National Institute of Metrology, Beijing 100029, China
E-mail: songsj@nim.ac.cn

I-P35

THE MECHANISM OF COPPER HOMEOSTASIS AND ITS ROLE IN DISEASES
Yunhui Li1, Jing Liang1, Yuan Chen1 and Yajie Wang1
1 Department of Clinical Laboratory, Beijing Ditan Hospital, Capital Medical University, Beijing, China
E-mail: liyunh04@163.com

I-P36

DETERMINATION OF STRUCTRUALY RELATED IMPURITIES IN 1-KESTOSE BY HPLC-CAD
Yurong LIU1,2, Xia ZHOU*1, Xiuqin Li1, Zhi CHEN2 and Qinghe ZHANG*1
1 Division of Chemical Metrology & Analytical Science, National Institute of Metrology, Beijing 100029, P. R. China
2 College of Material and Chemistry, China Jiliang University, Hangzhou 310018, P. R. China
E-mail: zhouxia@nim.ac.cn; zhangqh@nim.ac.cn

I-P37

TANDEM HILIC-CIM-MS FOR THE 2D ANALYSIS OF ENOXAPARIN
Siran ZHAO1, Xuexin YANG3, Ying KAN1,2, Tianji ZHANG1,2*, Hongmei Li1,2*
1. Division of Chemistry and Analytical Science, National Institute of Metrology, Beijing, China
2. Key Laboratory of Chemical Metrology and Applications on Nutrition and Health for State Market Regulation
3. Waters Technology Co.,Ltd, Beijing, PR China
Email: zhangtianji@nim.ac.cn; lihm@nim.ac.cn

I-P38

DEVELOPMENT OF AN IDMS METHOD FOR SIMULTANEOUS DETERMINATION OF PANTOTHENIC ACID, BIOTIN AND FOLIC ACID IN INFANT FORMULA
Zhen GUO*1, Huiting WANG2, Xiuqin Li1, Yun WEI2 and Qinghe ZHANG1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
2 College of Chemistry, Beijing University of Chemical Technology, Beijing 100029, China
E-mail: guozh@nim.ac.cn

I-P39

DETERMINATION OF PERCHLORATE AND CHLORATE IN INFANT FORMULA BY ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPHY-ISTOPE DILUTION TANTEN MASS SPECTROMETRY
Yaoyao Li1,2, Ling Shi2, Yan GAO*2, Xiuqin Li2 and Qinghe ZHANG2
1 State Key Laboratory of Heavy Oil Processing, College of Chemical Engineering and Environment, China University of Petroleum, Beijing 102249, China
2 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
E-mail: gaoyan@nim.ac.cn

I-P40

ESTABLISHMENT OF THE PURITY VALUES OF FATTY ACID METHYL ESTERS (FAME) CERTIFIED REFERENCE MATERIALS
Wenxin Li1, Lianhua Shi2, Shuli Liu3, Can Quan*1
1 National Research Center for Certified Reference Materials, National Institute of Metrology, Beijing 100029, China
2 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing 100029, China
3 Zhonghuan Shengda Environmental Technical Group Co., Ltd, Beijing, China

I-P41

REVIEW AND PROSPECT OF STRATEGIC PLAN ON FOOD SAFETY METROLOGY
Dan SONG, Ying KAN*, Hui JIAO, Hongmei LI
National Institute of Metrology, Beijing 100029, China
E-mail: songdan@nim.ac.cn; kanying@nim.ac.cn

I-P42

DETERMINATION OF ACRYLAMIDE IN INFANT FORMULA USING A MODIFIED QUECHERS METHOD COMBINED WITH ULTRA PERFORMANCE LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY
Jiahui MA1,2 Xiaomin Li*1, Qinghe ZHANG1
1 Division of Chemical Metrology and Analytical Science, National Institute of Metrology, Beijing, 100029, China
2 Beijing University of Chemical Technology, Beijing, 100029, China
E-mail: lixm@nim.ac.cn

I-P43

COMPARISON ON DIFFERENT DETECTORS FOR THE DETERMINATION OF SULFUR HEXAFLUORIDE BY GAS CHROMATOGRAPHY
Susu PAN1, Guocheng ZHANG1, Zhikuan ZHOU1, Xuelei NING1
1. Division of Ecology Environment and Energy Resources, Beijing Institute of Metrology, Beijing 100029, China.
E-mail:pansusu0611@163.com

I-P44

IMPURITY PROFILING OF NEONICOTINOID PESTICIDES
Xianjiang Li1*, Mengling TU1, Bingxin YANG1,2, Yunxiao ZHU1,3, Qinghe ZHANG1 and Hongmei Li1
1 Food Safety Laboratory, Division of Metrology in Chemistry, National Institute of Metrology, Beijing 100029, China
2 Beijing State Key Laboratory of Organic-Inorganic Composites, College of Chemical Engineering, Beijing University of Chemical Technology, Beijing 10029, China
3 State Key Laboratory of Heavy Oil Processing, College of Chemical Engineering and Environment, China University of Petroleum, Beijing 102249, China
E-mail: lixianjiang@nim.ac.cn

I-P45

A REVIEW OF CALIBRATION AND MEASUREMENT CAPABILITY BROAD CLAIMS IN THE CHEMICAL METROLOGY FIELD
Hui JIAO, Dan SONG, Ying KAN*
National Institute of Metrology, Beijing 100029, China
Email: kanying@nim.ac.cn

I-P46

DETERMINATION OF STRUCTRUALY RELATED IMPURITY IN THYMALFASIN BY LIQUID CHROMATOGRAPHY-HIGH RESOLUTION MASS SPECTROMETRY
Ming Li, Peize WU, Yuya CHENG
Division of Chemical Metrology & Analytical Science, National Institute of Metrology, Beijing 100029, P. R. China

I-P47

MEASUREMENT UNCERTAINTY OF SELENIUM DETERMINATION IN LIQUID WHOLE EGG BY INDUCTIVELY COUPLED PLASMA TANDEM MASS SPECTROMETRY
Yue Zhao1,2, Min Wang*2, Haibo Zhao*1, Xiaoning Zhao1, Shaolei Zhao1, Xue Meng1, Yiwen Zhang1 and Bingyue Wang1
1 Beijing Institute of Metrology, Beijing 100029, PR China
2 Institute of Quality Standards and Testing Technology for Agro-Products, Key Laboratory of Agro-Product Quality and Safety, Chinese Academy of Agricultural Sciences, Beijing 100081, PR China
Min Wang
E-mail: wangmin@caas.cn
Haibo Zhao
E-mail: zhaohb@bjil.cn

SCHEDULE OF
SESSIONS

J
LABELED
IMMUNOASSAY

CHAIR:
Prof. Guangtao YAN

ORAL LECTURES

Theme: Innovation and
Integration, Accurate Diagnosis
Dates: Sept.7-8,2023

Location:
Room E301,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
9:20-9:25	Opening Remarks	
9:25-9:55	J2	Progress in clinical application of laboratory diagnostic technique in autoimmune diseases Yongzhe Li Peking Union Medical College Hospital
9:55-10:25	J3	Laboratory testing in the era of immune checkpoint therapy Wei Cui Cancer Hospital, Chinese Academy of Medical Sciences
10:25-10:55	J4	LC-MS/MS helps precise diagnosis and treatment of intractable diseases Hui Wang Peking University People's Hospital
10:55-11:05	Coffee Break	
11:05-11:35	J5	Clinical application evaluation of liver cancer markers Guirong Sun Affiliated Hospital of Qingdao University
11:35-12:05	J6	Current Status and Development Trends of in Vitro Testing of Allergens Cunling Yan Peking University First Hospital
12:05-12:25		Thesis narrated speaker: YaLin HU, Jian Zhong
12:25-13:30	Lunch Break / Poster Session	

Date: Sep. 07, 2023 Pm (Thursday)		
13:30-14:00	J7	Development of chemiluminescent immunoassay for serum apoptosis-associated speck-like protein containing a caspase-recruitment domain and the exploratory study of its clinical application in the diagnosis and treatment of stroke Guojun Zhang Beijing Tiantan Hospital, Capital Medical University
14:00-14:30	J8	Guide of Emerging Infectious iseases in Clinical Laboratory Medicine Yajie Wang Department of Clinical Laboratory, Beijing Ditan Hospital, Capital Medical University
14:30-15:00	J9	Single-Round Aptamer Selection and Liquid Biopsy Bing Tao Hangzhou Institute of Medicine (HIM), Chinese Academy of Sciences
15:00-15:10	Coffee Break	
15:10-15:40	J10	Development of special protein assay based on biochemical platform Xiangyi Liu Beijing Tongren Hospital: Capital Medical University
15:40-16:10	J11	Development Trends and Prospects of Smart Laboratories Yanhong Gao First Medical Center: Chinese PLA General Hospital
16:10-16:30		Thesis narrated speaker: Mengyue You, Jingbin Zeng
16:30		Adjourn

Date: Sep. 08, 2023 Am (Friday)		
9:15-9:45	J12	Molecular diagnosis of cardiovascular disease Zhou Zhou Fuwai Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College
9:45-10:15	J13	Progress of cfDNA detection technology applied to tumor early screening Kai Zhang Department of Cancer Prevention, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital
10:15-10:45	J14	The advantages and disadvantages in early lung cancer diagnosis:proteomics, genomics and rare polyploid cell Guobin Xu Peking University Cancer Hospital
12:15-13:30	Coffee Break	
10:55-11:25	J15	Molecular detection of genes related to drug metabolism and toxic side effects Liyan Cui Peking University Third Hospital
11:25-11:55	J16	Clinical needs and advantages of LC-MS/MS androgen testing Cao Zheng Beijing Obstetrics and Gynecology Hospital
11:55-12:15		Thesis narrated speaker: Yutong Zou , Yaowei Ding
12:25-13:30	Lunch Break / Poster Session	

Date: Sep. 08, 2023 Pm (Friday)		
13:30-14:00	J17	Understanding the advantages and limitations of mass spectrometry in clinical application Songlin Yu Peking Union Medical College Hospital
14:00-14:30	J18	Clinical detection and application of chronic food allergy jinghua Tian Beijing Hospital of Traditional Chinese Medicine, Capital Medical University
14:30-15:00	J19	Exosome diagnostics-Potentials and Challenges Yanlian Yang National Center for Nanoscience and Technology
15:00-15:10	Coffee Break	
15:10-15:40	J20	Molecular Diagnosis Assists Early Diagnosis and Screening of Tumors Jianwei Guo Beijing Royal Integrative Medicine Hospital
15:40-16:10	J21	Waters LC-MS Latest Application in Clinical Resarch Xintong Li Waters Clinical Marketing
16:10-16:30		Thesis narrated speaker:Yongmei Liu, Haoting Zhan
16:30-16:40	/	Poster Awards/Closing Remarks Chair: Guangtao YAN
16:40		Adjourn



SCHEDULE OF
SESSIONS

J
LABELED
IMMUNOASSAY

CHAIR:
Prof. Guangtao YAN

POSTER SESSION

Theme: Innovation and
Integration, Accurate Diagnosis

Dates: Sept.7-8,2023

Location:
Room E301,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

J-P1

QUANTIFICATION OF THREE NEUROTRANSMITTERS IN CEREBROSPINAL FLUID, SERUM
AND URINE USING LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY METHOD
Jian ZHONG1, JiaLei YU1, LiHua Guan1, YuTong Zou1, SongLing Yu1, and Ling QIU*1,2

1 Department of Laboratory Medicine; Peking Union Medical College Hospital, Peking Union
Medical College & Chinese Academy of Medical Sciences, Beijing 100730, China

2 State Key Laboratory of Complex Severe and Rare Diseases, Peking Union Medical College
Hospital, Peking Union Medical College & Chinese Academy of Medical Sciences, Beijing
100730, China

*Correspondence:

Ling QIU

Email: lingqiubj@163.com

Presenting author

Jian ZHONG

Email: 13278883810@163.com

J-P2

ULTRASTABLE AG@AU NANOPATES WITH TUNABLE LSPR CHARACTERISTICS FOR
COLORIMETRIC AND PHOTOTHERMAL DUAL-MODE LATERAL FLOW IMMUNOASSAY
DETECTION OF SARS-COV-2 N PROTEIN

Kun Wang1, Congying Wen1, Jingbin Zeng*1

1 College of Chemistry and Chemical Engineering, China University of Petroleum (East China),
Qingdao 266580, P. R. China;

E-mail: zengjb@upc.edu.cn

for coronavirus disease 2019. Biosensors and Bioelectronics 2020, 165, 112349.

J-P3

SINGLE-ROUND APTAMER SELECTION AND LIQUID BIOPSY

Tao BING1 , * , Xiaoqiu WU1 , Hongyu WU1 , Ying LIANG1 , Dihua SHANGGUAN 2, Weihong
TAN1,*

1 The Key Laboratory of Zhejiang Province for Aptamers and Theranostics, Hangzhou
Institute of Medicine (HIM), Chinese Academy of Sciences, Hangzhou, Zhejiang 310022,
China

2 Beijing National Laboratory for Molecular Sciences, Key Laboratory of Analytical Chemistry
for Living Biosystems, CAS Research/Education Center for Excellence in Molecular Sciences,
Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100190, China.

E-mail: bingtao@iccas.ac.cn, tan@hnu.edu.cn

J-P4

THE DIAGNOSTIC VALUE OF SERUM AFP AND PIVKA- II DETECTION IN HEPATITIS VIRUS-
RELATED HEPATOCELLULAR CARCINOMA

FANG Qian , LI Weijie , GUO Jingjing , FANG Wei , XU Xinmin , WANG Yajie

(Department of Clinical Laboratory , Beijing Ditan Hospital , Capital Medical University ,
Beijing 100015 , China)

J-P5

THE METHODOLOGY OF THE OPTIMAL S/CO VALUE BY CHEMILUMINESCENCE

IMMUNOASSAY OF THE POSITIVE PREDICTIVE VALUE OF HEPATITIS C ANTIBODY ≥ 95%

AND THE DISCUSSION OF IMPORTANCE

Han Jinyu1, Guo Jingjing2, Meng Huan2, Li Yunhui2, Han Ying2,
Chen Jin2, Chen Yuan1, Liang Jing2, Wang Yajie1,2*

1 Department of Clinical Laboratory,Peking University Ditan Teaching
Hospital,Beijing100015,China;

2 Laboratory Department of Beijing Ditan Hospital Afiliated to
Capital Medical University,Beijing100015,China

*Corresponding author, Email:wangyajie@ccmu.edu.cn

J-P6

ESTABLISHMENT OF A HIGHLY SENSITIVE

ELECTROCHEMILUMINESCENCE METHOD FOR THE
DETERMINATION OF THYROID STIMULATING HORMONE IN
HUMAN SERUM

FENG Jie1 , GAO Yan-hong1,JING San-you2,ZHAO Qiang2,YANG
Rui-chuang2*,YAN Guangtao1

1 Department of Laboratory Medicine , the First Medical Center,
Chinese PLA General Hospital, Beijing 100853, China

2 Shenzhen Mindray Bio-Medical Electronics Co.,Ltd,Shenzhen
518063,China

J-P7

RESEARCH ON DIFFERENTIATING MARKERS FOR T-PIT AND SF-1
LINEAGE PITUITARY TUMORS BASED ON MULTI-OMICS

Guoge Li1,4,5*, Lei Li3, Yaowei Ding1,4,5, Xiaotong Li1,4,5, Xin
Luan1,4,5, Jialu Sun1,4,5, Yuxin Chen1,4,5, Siqi Wang1,4,5, Zhijun
Yang2#, Guojun Zhang1,4,5#

1 Laboratory Diagnosis Center, Beijing Tiantan Hospital, Capital
Medical University, Beijing, China 2 Department of Neurosurgery of
Beijing Tiantan Hospital, Capital Medical University, Beijing, China

3 Central Laboratory, Capital Medical University, Beijing, China

4 NMPA Key Laboratory for Quality Control of In Vitro Diagnostics,
Beijing, China;

5 Beijing Engineering Research Center of Immunological Reagents
Clinical Research, Beijing, China

Corresponding author:

Zhijun Yang (Email: zhijunyang@ccmu.edu.cn, NO. 119 Nansihuan
West Road, Fengtai District Beijing, China, +86 13811758861)

Guojun Zhang (ORCID:0000-0003-4911-5784, Email: guojun.
zhangdu.cn, NO. 119 Nansihuan West Road, Fengtai District Beijing,
China, +86 13552696385)

J-P8

ACCEPTANCE, SAFETY AND IMMUNOGENICITY OF A BOOSTER
DOSE OF INACTIVATED SARS-COV-2 VACCINE IN PATIENTS WITH
PRIMARY BILIARY CHOLANGITIS

Haolong Li*1, and Yongzhe Li1

1 Department of Clinical Laboratory, State key Laboratory of
Complex, Severe and Rare Diseases, Peking Union Medical College
Hospital, Chinese Academy of

Medical Science and Peking Union Medical College, Beijing, China

E-mail: jack3505@126.com

J-P9

AUTOMATED CHEMILUMINESCENT IMMUNOASSAY FOR SERUM
ASC AS A NOVEL BIOMARKER FOR STROKE AND A PILOT STUDY

Lijuan Wanga,b,c,1, Xin Luana,b,c,1, Yijun Shia,b,c,, Binyuan Xud

, Jinghan Guod, Rong Fand, Yubin Lid, Guoge Lia,b,c, Yaowei

Dinga,b,c, Wencan Jianga,b,c, Jialu Suna,b,c, Xuejun Duand*, Guojun
Zhangab,c**

aBeijing Tiantan Hospital, Capital Medical University, No.119 South
Fourth Ring West Road, Fengtai District, Beijing, China

bNMPA Key Laboratory for Quality Control of In Vitro Diagnostics,
Beijing, China

cBeijing Engineering Research Center of Immunological Reagents
Clinical Research, Beijing, China

dBeijing North Institute of Biotechnology Co., Ltd., NO. A20

Panjiamiaio, Fengtai Distrct, Beijing, China

* Corresponding author. Beijing North Institute of Biotechnology
Co., Ltd. Panjiamiaio NO. A20, Fengtai Distrct, Beijing, China; E-mail
addresses: xzs_duanxuejun@163.com

** Corresponding author. Beijing Tiantan Hospital, Capital Medical
University, No.119 South Fourth Ring West Road, Fengtai District,
Beijing, China; E-mail addresses: guojun.zhang@ccmu.edu.cn

1 These authors contributed equally

Keywords : apoptosis-associated speck-like protein containing
a caspase-recruitment domain ; stroke ; biomarker ;
chemiluminescent immunoassay

J-P10

TERT AS A NOVEL INDICATOR FOR EVALUATING NERVE DAMAGE
AND DRUG EFFICACY

Lin Zhu1, Jinbao Zong*1

1 The Affiliated Qingdao Hiser Hospital of Qingdao University,
Qingdao, China

E-mail: julin215@163.com

J-P11

APPLICATION CHALLENGES OF CHATGPT IN LABORATORY
MEDICINE

MEI Jingzhao , GAO Yanhong

Department of Clinical Laboratory, the First Medical Center, Chinese
PLA General Hospital, Beijing 100853, China

E-mail:mjzaxl@163.com

J-P12

EFFECT OF FOLLOW-UP CEREBROSPINAL FLUID CULTURES IN
POST-NEUROSURGICAL PATIENTS' OUTCOME WITH GRAM-
NEGATIVE BACTERIAL MENINGITIS/ENCEPHALITIS

Sun Jialu1, Shi Yijun1, Ding Yaowei1, Wang Siqi1, Qian Lingye4, Luan
Xin1, Li Guoge1, Chen Yuxin1, Li Xiaotong1, Lv Hong123, Zheng
Guanghui123, Zhang Guojun123

1 Laboratory of Beijing Tiantan Hospital, Capital Medical University,
Beijing 100076

2 NMPA Key Laboratory for Quality Control of In Vitro Diagnostics,
Beijing 100076

3 Beijing Engineering Research Center of Immunological Reagents
Clinical Research, Beijing 100076
4 Laboratory of Beijing An Zhen Hospital, Capital Medical University,
Beijing 100029

J-P13

INTEGRATED IDENTIFICATION-QUANTIFICATION (ID-QUANT)
WORKFLOW UTILIZING UPLC-QTOF-MS FOR THE THERAPEUTIC
DRUG MONITORING OF MULTI-COMPONENT ANTIBIOTICS
WITHOUT PURE STANDARDS: VALIDATION USING TEICOPLANIN
Xiaoli Ma,a,b Yutong Zou,a Jian Zhong, a Songlin Yu,* ,a,c Ling
Qiu* ,a,d
a Department of Clinical Laboratory, Peking Union Medical College
Hospital, Peking Union Medical College & Chinese Academy of
Medical Sciences, Beijing 100730, China
b Medical Science Research Center (MRC), Peking Union Medical
College Hospital, Peking Union Medical College & Chinese
Academy of Medical Sciences, Beijing 100730, China
c NHC Key Laboratory of Endocrinology, Peking Union Medical
College Hospital, Peking Union Medical College & Chinese
Academy of Medical Sciences, Beijing 100730, China
d State Key Laboratory of Complex Severe and Rare Diseases,
Peking Union Medical College Hospital, Peking Union Medical
College & Chinese Academy of Medical Sciences, Beijing 100730, China

J-P14

ORIGINAL RESEARCH SERUM NSE IS AN INDEPENDENT RISK
FACTOR FOR POSITIVE PD-L1 IN BREAST CANCER PATIENTS
Xuemei Wei1, Xu zhang1,Lin Zhu1, Jingzhu Nan1,*
1 Department of Clinical Examination , the First Medical Center of
Chinese PLA General Hospital, Beijing, China
*Correspondence: nanjingzhu0885@126.com (Jingzhu Nan)
†Xuemei Wei and Xu Zhang contributed equally.

J-P15

POTENTIAL BIOMARKERS IDENTIFIED BY TMT-BASED
QUANTITATIVE PROTEOMICS FOR DIAGNOSIS AND
CLASSIFICATION OF NEUROMYELITIS OPTICA SPECTRUM
DISORDER
Yaowei Ding1,* , Yuxin Chen1,* , Jialu Sun1, Lijuan Wang1, Yijun Shi1,
Guoge Li1, Xin Luan1, Siqi Wang1 and Guojun Zhang1,2,3,#
1 Laboratory of Beijing Tiantan Hospital, Capital Medical University,
Beijing, China; 2, NMPA Key Laboratory for Quality Control of In
Vitro Diagnostics, Beijing, China; 3, Beijing Engineering Research
Center of Immunological Reagents Clinical Research, Beijing, China
*These authors contributed equally to this work.
#Correspondence: Guojun Zhang, zgjlunwen@163.com, 119 South
Fourth Ring Road West, Fengtai District, Beijing

J-P16

PREOPERATIVE SERUM CA724, CYFRA21-1 LEVELS AND SURVIVAL
PROGNOSIS IN PATIENTS WITH GASTRIC CANCER
ZHANG Xu1 ,LUAN XiaoJuan2,NAN Jingzhu1,WEI XueMei1, GAO YanHong1

1 Department of Clinical Laboratory, the First Medical Center,
Chinese PLA General Hospital, Beijing 100853, China
2 Department of Clinical Laboratory, Qingdao Third People's
Hospital, Qingdao 266041, Shandong Province, China
Figure 2. Survival Curves for Patients with Gastric Cancer According
to Status

J-P17

A GENERAL NEW TECHNOLOGY AND METHOD FOR THE
DETECTION OF VARIOUS VIRAL PROTEINS BASED ON
THE INTEGRATION OF IN SITU MICROEXTRACTION AND
PHOTOTHERMAL DETECTION
Zhuoran ZHANG, Chunpeng JIAO, Xiang Li, Jingbin ZENG*
College of Chemistry and Chemical Engineering, China University of
Petroleum (East China), Qingdao 266580, P. R. China

J-P18

ASYMPTOMATIC ELEVATION OF PARATHYROID HORMONE LEVELS
BY ANTIBODIES AGAINST REAGENT ALKALINE PHOSPHATASE
Danchen Wang1, Jin Cheng1, Yingying Hu1, Yicong Yin1, Wei Su1,
Wei Ji1, Xinqi Cheng1, Songlin Yu1, Ling Qiu*1,2
1 Department of Clinical Laboratory, Peking Union Medical College
Hospital, Peking Union Chinese Academy of Medical Sciences, No. 1
Shuaifu Yuan, Dongcheng District, Beijing 100730, P. R. China
2 State Key Laboratory of Complex Severe and Rare Diseases, Peking
Union Medical College Hospital, Chinese Academy of Medical
Science and Peking Union Medical College, Beijing, China, 100730
#These authors contributed equally to this article.
*Corresponding author:
Ling Qiu, MD.
Department of Clinical Laboratory, Peking Union Medical College
Hospital, Peking Union Chinese Academy of Medical Sciences, No. 1
Shuaifu Yuan, Dongcheng District, Beijing 100730, P. R. China
State Key Laboratory of Complex Severe and Rare Diseases, Peking
Union Medical College Hospital, Chinese Academy of Medical
Science and Peking Union Medical College, Beijing, China, 100730
Tel: +86-01069159707
Fax: +86-01069159712
Email: lingqiubj@163.com

J-P19

Omicron BA.4/5 Neutralization and Cell-mediated Immune
Responses in Relation to Baseline Immune Status and Breakthrough
Infection among PLWH: During the Omicron BA.4/5 Wave in China
Haoting Zhan1, Yongmei Liu1 , Yongzhe Li1,2*
1 Department of Clinical Laboratory, State key Laboratory of
Complex, Severe and Rare Diseases, Peking Union Medical College
Hospital, Chinese Academy of Medical Science and Peking Union
Medical College, Beijing, China
2 Department of Clinical Laboratory, Peking Union Medical College
Hospital, Beijing, China
*Email address of corresponding address: yongzhelipumch@126.
com

J-P20

SELENOPROTEIN K AGGRAVATES HEPATIC STEATOSIS AND AS A
BIOMARKER FOR CLINICAL DIAGNOSIS OF NAFLD
Mengyue You 1, Xiangyi Liu 1,*
1 Department of Clinical Laboratory, Beijing Tongren Hospital,
Capital Medical University, Beijing, 100730, China
E-mail: youmy608@163.com

J-P21

DEVELOPMENT AND VALIDATION OF DIAGNOSTIC AND ACTIVITY
ASSESSING MODELS FOR RELAPSING POLYCHONDritis BASED
ON LABORATORY PARAMETERS
Yongmei Liu1, Linlin Cheng1, Mengzhu Zhao2,3, Yong Hou2*,
Yongzhe Li1*
1 Molecular Medicine, Research Institute, Osaka Medical Center for
Maternal and Child Health, Osaka 590-02, Japan
2 Institute of Physics, College of General Education, Osaka University,
Toyonaka, Osaka 560, Japan
1Department of Clinical Laboratory, State Key Laboratory of
Complex, Severe and Rare Diseases, Peking Union Medical College
Hospital, Peking Union Medical College and Chinese Academy of
Medical Sciences, 100730, Beijing, China
2 Department of Rheumatology and Clinical Immunology, Chinese
Academy of Medical Sciences and Peking Union Medical College;
National Clinical Research Center for Dermatologic and Immunologic
Diseases (NCRC-DID), Ministry of Science and Technology; State
Key Laboratory of Complex severe and Rare Diseases, Peking Union
Medical College Hospital; Key Laboratory of Rheumatology and
Clinical Immunology, Ministry of Education, Beijing, China
3 Department of Rheumatology, The First Affiliated Hospital,
Zhejiang University School of Medicine, 310000, Hangzhou, China
E-mail: yongmeiliu@163.com

J-P22

IMMUNE AND INFLAMMATION FEATURES OF SEVERE AND
CRITICAL COVID-19 PATIENTS INFECTED WITH OMICRON
Yongmei Liu1, Haoting Zhan1, Yongzhe Li1
1Department of Clinical Laboratory, State Key Laboratory of
Complex, Severe and Rare Diseases, Peking Union Medical College
Hospital, Peking Union Medical College and Chinese Academy of
Medical Sciences, 100730, Beijing, China
E-mail: yongmeiliude@163.com
Tarke A, Coelho CH, Zhang Z, Dan JM, Yu ED, Methot N, et al. SARS-
CoV-2 vaccination induces immunological T cell memory able to
cross-recognize variants from Alpha to Omicron. CELL. [Journal
Article]. 2022 2022-03-03;185(5):847-59.

J-P23

A NOVEL AUTOMATED MAGNETIC-BEAD-ASSISTED SEQUENTIAL
EXTRACTION METHOD FOR SIMULTANEOUS MEASUREMENT OF
CSF AB1-42 AND AB1-40 USING UHPLC-MS/MS
Yutong Zou1, Songlin Yu1, Xiaoli Ma1, Jing Gao2, Chenhui Mao2, Jian
Zhong1, Danchen Wang1, Ling Qiu1, 3

1 Department of Laboratory Medicine, Peking Union Medical
College Hospital, Peking Union Medical College & Chinese Academy
of Medical Science, Beijing 100730, China
2 Department of Neurology; Peking Union Medical College Hospital,
Peking Union Medical College & Chinese Academy of Medical
Sciences, Beijing 100730, China
3 State Key Laboratory of Complex Severe and Rare Diseases, Peking
Union Medical College Hospital, Peking Union Medical College &
Chinese Academy of Medical Sciences, Beijing 100730, China

J-P24

COMPARISON OF THREE IMMUNOASSAYS AND ONE LC-MS/
MS ASSAY OF CSF FOUR CORE BIOMARKERS MEASUREMENTS IN
ALZHEIMER'S DISEASE
Yutong Zou1#, Xiaoli Ma1#, Shanshan Chu2, Tianyi Wang2, Wei Jin2,
Chenhui Mao2, Xinqi Cheng1, Jian Zhong1, Songlin Yu1*, Jing Gao2*,
Ling Qiu1, 3*
1 Department of Laboratory Medicine, Peking Union Medical
College Hospital, Peking Union Medical College & Chinese Academy
of Medical Science, Beijing 100730, China
2 Department of Neurology; Peking Union Medical College Hospital,
Peking Union Medical College & Chinese Academy of Medical
Sciences, Beijing 100730, China
3 State Key Laboratory of Complex Severe and Rare Diseases, Peking
Union Medical College Hospital, Peking Union Medical College &
Chinese Academy of Medical Sciences, Beijing 100730, China

J-P25

INCREASED INHBA EXPRESSION IN CERVICAL CANCER PREDICTS A
POOR PROGNOSIS AND PROMOTES CELL METASTASIS
Congle SHEN, Yajie WANG*
Department of Clinical Laboratory, Beijing Ditan Hospital, Capital
Medical University, Beijing, China.
E-mail: scl7756@163.com

J-P26

QUANTITATIVE DETECTION OF NEURON SPECIFIC ENOLASE IN
SERUM BY IMMUNOCHROMATOGRAPHY BASED ON MAGNETIC
NANOPARTICLES
YaLin HU1, Xin LU1, ZhanWei LIANG1 and Tao PENG*1
1 Mass Spectrometry Engineering Technology Research Center,
Center for Advanced Measurement Science, National Institute of
Metrology, Beijing 100029, People's Republic of China
*E-mail: pengtao@nim.ac.cn

J-P27

REMNANT CHOLESTEROL AND DYSLIPIDEMIA ARE RISK FACTORS
FOR GBS AND SEVERE GBS BY PROMOTING MONOCYTE
ACTIVATION
Yaowei Ding1,* , Lijuan Wang1,* , Jialu Sun1, Yijun Shi1, Guoge Li

SCHEDULE OF
SESSIONS

K

MICRO TOTAL
ANALYSIS

CHAIR:
Prof. Jin-Ming LIN

ORAL LECTURES

Theme: Miniaturized Analysis
Technology for the Whole
Society

Dates: Sept.7-8,2023

Location:
Room E306,
Academic Conference Area,
China International Exhibition
Center (Shunyi Hall), Beijing

Date: Sep. 06, 2023 (Wednesday)		
Registration (9:00–17:00)		
Date: Sep. 07, 2023 Am (Thursday)		
Session 1: Single Entity Analysis Chair: Prof. Xiujun LI, Prof. Jianhua WANG		
9:00-9:25	Opening Remarks by Prof. Jin-Ming LIN	
9:25-9:50	K2	Optical Spectroscopy and ICP-MS Two Dimensional Single Cell Analysis Jianhua WANG (Keynote) Northeastern University, China
9:50-10:15	K3	Microenvironment Induced Cell Migration and Measurement Baohong LIU (Keynote) Fudan University, China
10:15-10:40	K4	Single-Entity Electroanalytical Chemistry Yi-Tao LONG (Keynote) Nanjing University, China
10:40-10:50	Coffee Break	
10:50-11:15	K5	Resonance Energy Transfer Spectrometry of Single Nanoparticle Cheng Zhi HUANG (Keynote) Southwest University, China
11:15-11:40	K6	Innovations in Paper/Polymer Hybrid Microfluidic Platforms for Rapid Point-of-Care Diagnosis of Infectious Diseases Xiujun LI (Keynote) University of Texas, El Paso, USA
11:40-11:55	O1	Asymmetric Nanofluidic Devices for Sensitive and Label-Free Bioanalysis Chen WANG (Oral) Nanjing Normal University, China
11:55-12:10	O2	The Paper-Based Flow Sensor Based on Viscosity Change for the Detection of Biomarkers Qiongzhen HU (Oral) Qilu University of Technology (Shandong Academy of Sciences), China
12:10-13:30	Lunch Break / Poster Session	
Date: Sep. 07, 2023 Pm (Thursday)		
Session 2: Organ Simulation and Cell Metabolism Analysis Chair: Prof. Chaoyong YANG, Prof. Jaebum CHOO		
13:30-13:55	K7	Organoid/Organ on a Chip for Drug Screening Qionglin LIANG (Keynote) Tsinghua University, China

13:55-14:20	K8	SERS-Based Droplet Microfluidics for The Aiagnosis of SARS-CoV-2 Jaebum CHOO (Keynote) Chung-Ang University, Seoul, South Korea
14:20-14:45	K9	In Vivo Sensing Based on Stretchable Electronics Xingyu JIANG (Keynote) South University of Science and Technology, China
14:45-15:10	K10	High-Throughput Drug Delivery for Drug Screening Qun FANG (Keynote) Zhejiang University, China
15:10-15:20	Coffee Break	
15:20-15:45	K11	A Robust Glycoproteomics Platform Facilitating Highly Reproducible Analysis of Serum Site-Specific Glycoforms for Biomarker Mingliang YE (Keynote) Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China
15:45-16:10	K12	Dendrimeric DNA Coordinate Barcoding Design for Spatial RNA Sequencing Chaoyong YANG (Keynote) Xiamen University, China
16:10-16:35	K13	Loss-less and Contamination-Free Droplet Digital PCR Yanyi HUANG (Keynote) Peking University, China
16:35-16:50	O3	Phospholipid Self-Assembly Based Artificial Cells Xiaojun HAN (Oral) Harbin Institute of Technology, China
16:50-17:05	O4	Chemical Pen for Nanowire Fabrication and Its Application Haifeng LIN (Oral) Beijing Technology and Business University, China
17:05		Adjourn
Date: Sep. 08, 2023 Am (Friday)		
Session 3: Techniques for Micro and Nano Analysis Chair: Chair: Prof. Seong Ho KANG, Prof. Mashooq KHAN		
9:25-9:50	K14	How to Solve Problems in Non-Targeted Analysis Oliver J. SCHMITZ (Keynote) University of Duisburg-Essen, Duisburg, Germany
9:50-10:15	K15	Micro/Nano-Technology-Based Bioanalysis Jiashu SUN (Keynote) The National Center for Nanoscience and Technology, China

10:15-10:30	O5	Non-Invasive Monitoring of Diffusible Signaling Molecules in Living Single Cells Using Liquid Crystal Mashooq KHAN (Oral) Qilu University of Technology (Shandong Academy of Sciences), China
10:30-10:40	Coffee Break	
10:40-11:05	K16	Raman and NIR Spectroscopic Detection of Microplastics in Water Using Perfluorocarbon as A Capturing Medium Hoeil CHUNG (Keynote) Hanyang University, Seoul, South Korea
11:05-11:30	K17	Nanofluidics: Evolving and Pioneering the Future of Analytical Chemistry Yan XU (Keynote) University of Osaka, Osaka, Japan
11:30-11:55	K18	Integrated Multi-Functional Super-Resolution Microscopy Based on Wavelength-Dependent Plasmonic Scattering for Single Living Cell Analysis Seong Ho KANG (Keynote) Kyung Hee University, South Korea
11:55-12:10	O6	A Microfluidic Chemiluminescence Immunosensor Based on Orientation of Antibody for HIV-1 P24 Antigen Detection Dan GAO (Oral) Tsinghua Shenzhen International Graduate School, Tsinghua University, China
12:10-13:30	Lunch Break / Poster Session	
Date: Sep. 08, 2023 Pm (Friday)		
Session 4: New Principles, Technologies and Methods Chair: Prof. Hulin ZENG, Prof. Yanwei JIA		
13:00-13:25	K19	Highly Sensitive Nanofluidic Sensing Via Functional Modification of Single Glass Nanopore Yao-Qun LI (Keynote) Xiamen University, China
13:25-13:50	K20	Digital Microfluidics for Cancer Precision Medicine Yanwei JIA (Keynote) University of Macau, Macau, China
13:50-14:15	K21	Microchemical Pen: Microfluidic Approach for Single Cell Analysis Sifeng MAO (Keynote) Tokyo Metropolitan University, Tokyo, Japan

14:15-14:30	O7	Multiplexed Detection of Foodborne Pathogens Using One-Pot RAA-CRISPR/ Cas12a on A Finger-Actuated Microfluidic Biosensor Gaowa XING (Oral) Lanzhou University, China
14:30-14:45	O8	Precise Nanopore Peptides Analysis: From Biomedical Diagnosis to Peptidomics Profiling Liang WANG (Oral) Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, China
14:45-15:00	O9	Study on Cytotoxicity of Polyfluoroalkyl Substances by Microfluidics Chip Mass Spectrometry Ning XU (Oral) Institute of Quality Standard and Testing Technology for Agro-Products, Chinese Academy of Agricultural Sciences, China
15:00-15:10	Coffee Break	
15:10-15:35	K22	超高精度微流控芯片加工产业化解决方案 吴大林 (Keynote) 北京保利微芯科技有限公司

15:35-16:00	K23	Development of the Air-Blood Barrier (ABB) Model in Vitro Using the Dynamic Microfluidics Hulie ZENG (Keynote) Fudan University, China
16:00-16:25	K24	Microfluidic Droplets for Single-Cell Microbial Cultivation, Screening, and Sequencing Wenbin DU (Keynote) Institute of Microbiology, Chinese Academy of Sciences, China
16:25-16:40	O10	Digital Microfluidics Coupled with Chemiluminescence for Automatic Biosensing and Bioanalysis Yan JIN (Oral) Shaanxi Normal University, China
16:40-16:55	O11	Near-Field Terahertz Scanning Microscopy of Single Cell Shihan YAN (Oral) Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences, China
16:55-17:00		Poster Awards/Closing Remarks Chair: Jin-Ming LIN
17:00		Adjourn

SCHEDULE OF SESSIONS



MICRO TOTAL ANALYSIS

CHAIR:
Prof. Jin–Ming LIN
POSTER SESSION
Theme: Miniaturized Analysis Technology for the Whole Society
Dates: Sept.7-8,2023
Location:
Room E306,
Academic Conference Area,
China International Exhibition Center (Shunyi Hall), Beijing

K-P1
IMPROVING SERS DETECTION SENSITIVITY IN A LIMITED VOLUME WELL-PLATE: A SIMPLE APPROACH
Jiadong Chen, Qian Yu, Mengdan Lu and Jaebum Choo*
Department of Chemistry, Chung-Ang University Seoul 06974, South Korea
E-mail: jbchoo@cau.ac.kr

K-P2
SYNTHESIS OF STABLE AND SENSITIVE CORE-SATELLITE SERS NANOTAGS FOR MULTIPLEX DETECTION OF DISEASE BIOMARKERS
Qian Yu, Mengdan Lu and Jaebum Choo*
Department of Chemistry, Chung-Ang University Seoul 06974, South Korea
E-mail: jbchoo@cau.ac.kr

K-P3
THERMOPHORESIS-MEDIATED DNA COMPUTATION FOR THE ANALYSIS OF TUMOR-DERIVED EXTRACELLULAR VESICLES
Yike Li1,2, Liqin Zhang*1 and Jiashu Sun*2
1 School of Pharmaceutical Sciences, Peking University, XueYuan Road38, Beijing, China
2 National Center for Nanoscience and Technology, BeiYiTiao11, Beijing, China
E-mail: 2216395028@bjmu.edu.cn

K-P4
INTEGRATING LIQUID CHROMATOGRAPHY-ELECTROCHEMICAL DETECTION-SURFACE ENHANCED RAMAN SPECTROSCOPY ON MICROFLUIDIC CHIP FOR PHENYLUREA HERBICIDES ANALYSIS
Xu WANG, Ziyang GUO, and Xiayan WANG*
Center of Excellence for Environmental Safety and Biological Effects, Department of Chemistry, Beijing University of Technology, Beijing, 100124, China
E-mail: xiayanwang@bjut.edu.cn

K-P5
AN INTEGRATED DIGITAL MICROFLUIDIC MASS SPECTROMETRY STRATEGY FOR RAPID EXOSOME ENRICHMENT AND PROFILING
Yudan Ma, Fenggang Li, Rongxin Fu, Shuailong Zhang, and Hang Li*
Beijing Institute of Technology,China



K-P6

A SPECIFIC MASS-TAG APPROACH FOR SENSITIVE AND
MULTIPLEXED BACTERIAL DETECTION USING MALDI-TOF MS
Nan Li1,2, Jin-Ming Lin3

1 Beijing University of Chinese Medicine, School of Chinese Materia
Medica, Beijing 100029, China.

2 Engineering Research Center for Pharmaceuticals of Chinese Materia
Medica and New Drug Development, Ministry of Education, Beijing
100029, China.

3 Department of Chemistry, Tsinghua University, Beijing, 100084
E-mail: linan@bucm.edu.cn

K-P7

SCUTELLARIN ALLEVIATING HYPOXIA INJURY IN BV2 CELLS
CULTURED ON MICROFLUIDIC CHIP COMBINED WITH A MASS
SPECTROMETER

Shiyu Chen1,2, Xianli Meng1*, Jin-Ming Lin2*

1 State Key Laboratory of Southwestern Chinese Medicine Resources,
Innovative Institute of Chinese Medicine and Pharmacy, Chengdu
University of Traditional Chinese Medicine

2 Beijing Key Laboratory of Microanalytical Methods and
Instrumentation, Department of Chemistry, Tsinghua University

K-P8

NEUROTOXICITY MECHANISM OF ACONITINE IN HT22 CELLS
STUDIED BY MICROFLUIDIC CHIP-MASS SPECTROMETRY
Yingrui Zhang, Shiyu Chen, Fangfang Fan, Ning Xu, Xian-Li Meng

K-P9

ONE-STEP THERMOPHORETIC AND GATE OPERATION ON
EXTRACELLULAR VESICLES IMPROVES DIAGNOSIS OF PROSTATE
CANCER

Jinqi DENG1, Shuai ZHAO1, Junhong LI1, Fei TIAN1, and Jiashu SUN*1

1 National Center for Nanoscience and Technology, Beijing 100190,
China

E-mail: sunjs@nanocr.cn

K-P10

CASCADED MICROFLUIDIC CIRCUITS FOR PULSATILE FILTRATION
OF EXTRACELLULAR VESICLES FROM WHOLE BLOOD FOR EARLY
CANCER DIAGNOSIS

Zhenglin Li1, 2 †, Chao Liu1, 2 †, Yangchang Cheng1, 2 †, Yike Li1, 2,
Jinqi Deng1, 2, Lixiao Bai3, Lili Qin3, Huili Mei4, Min Zeng4, Fei Tian1,
2 *, Shaohua Zhang3 * and Jiashu Sun1, 2 *

1 Beijing Engineering Research Center for BioNanotechnology,
CAS Key Laboratory of Standardization and Measurement for
Nanotechnology, National Center for Nanoscience and Technology,
Beijing 100190, China.

2 School of Future Technology, University of Chinese Academy of
Sciences, Beijing 100049, China.

3 Department of Breast Cancer, The Fifth Medical Centre, Chinese
PLA General Hospital, Beijing 100071, China

4 Beijing Sihui Traditional Chinese Medicine Hospital, Beijing 100124,
China.

† These authors contributed equally to this work.

*Corresponding author: sunjs@nanocr.cn (J.S.); zhangshaohua@
cscs.org.cn (S.Z.); tianf@nanocr.cn (F.T.)

K-P11

POLY(ETHYLENE OXIDE) CONCENTRATION GRADIENT-BASED
MICROFLUIDIC ISOLATION OF CIRCULATING TUMOR CELLS

Yangchang Cheng1, Shaohua Zhang2, Lili Qin2, Junxiang Zhao1, Hua
Song2, Yang Yuan2, Jiashu Sun1, Fei Tian1*, and Chao Liu1*

1 Beijing Engineering Research Center for BioNanotechnology,
CAS Key Laboratory of Standardization and Measurement for
Nanotechnology, National Center for Nanoscience and Technology,
Beijing 100190, China

2 Department of Oncology, Senior Department of Oncology, The
Fifth Medical Center of PLA General Hospital, Beijing 100071, China
E-mail: liuc@nanocr.cn

K-P12

INTEGRATING MICROCHIP AND ELECTROCHEMICAL SENSOR
BASED ON AG-CEO2 FOR ON-SITE DETERMINATION OF NITRITE
IN WATER AND FOOD

Kunmeng Zhao1, Yihui Zhou1, Ang Shi2, Xuexia Lin*1

1 Department of Chemical Engineering & Pharmaceutical
Engineering, College of Chemical Engineering, Huaqiao University,
Xiamen, 361021

2 College of Marine Engineering, Jimei University, Xiamen, 361021
Email: linxuexia@hqu.edu.cn

K-P13

STUDIES ON A NEW CHEMILUMINESCENCE METHOD FOR THE
DETECTION OF CYANOIMINO NEONICOTINOIDS BY PMS/CO2+-
RU(BPY)32+ SYSTEM

Mengdie Cai, Yu Wu, Huihai Tao, Xianglei Cheng

Jiangxi Province Key Laboratory of Preventive Medicine, School of
Public Health, Nanchang University, Nanchang 330006, P. R. China
E-mail:1140804271@qq.com

K-P14

MULTIDIMENSIONAL CONTROLLABLE FABRICATION OF TUMOR
SPHEROID BASED ON A MICROFLUIDIC DEVICE

Ying HOU1, Yajing ZHENG1, Xiaonan ZHENG1, Yucheng SUN1, Xizhen
YI1, Zengnan WU1 and Jin-Ming Lin*1

1 Department of Chemistry, Beijing Key Laboratory of Microanalytical
Methods and Instrumentation, Key Laboratory of Bioorganic
Phosphorus Chemistry and Chemical Biology (Ministry of Education),
Tsinghua University, Beijing 100084, P. R. China.

E-mail: jmlin@mail.tsinghua.edu.cn

K-P15

TRYPTOPHAN METABOLITES ON CELL DAMAGE REVEALED BY
BACTERIA-CELL INTERACTION IN HYDROGEL MICROSPHERES
Yuxuan Li1, Hongren Yao1, Shulang Chen1, Ning Xu1, and Jin-Ming
Lin*1

1 Department of Chemistry, Beijing Key Laboratory of Microanalytical
Methods and Instrumentation, Key Laboratory of Bioorganic
Phosphorus Chemistry & Chemical Biology (Ministry of Education),
Tsinghua University, Beijing 100084, China.
E-mail: jmlin@mail.tsinghua.edu.cn.

K-P16

SINGLE NANOVESICLES TRACKING REVEALS THEIR
HETEROGENEOUS EXTRACELLULAR ADSORPTIONS
Hua Sun and Qionglin Liang*

MOE Key Laboratory of Bioorganic Phosphorus Chemistry and
Chemical Biology, Laboratory of Flexible Electronics Technology,
Center for Synthetic and Systems Biology, Department of Chemistry,
Tsinghua University, Beijing, 100084 China
E-mail: liangql@tsinghua.edu.cn

K-P17

A DUAL-RESPONSIVE NEAR-INFRARED FLUORESCENT PROBE FOR
SIMULTANEOUS MONITOING INTRACELLULAR NAD(P)H AND PH
Liandi GUAN1, Wangting HU1, Hua SUN1, Mingyu DING*1 and
Qionglin LIANG*1

1 MOE Key Laboratory of Bioorganic Phosphorus Chemistry &
Chemical Biology, Department of Chemistry, Laboratory of Flexible
Electronics Technology, Center for Synthetic and Systems Biology,
Tsinghua University, Beijing 100084, P.R. China.
E-mail: liangql@mail.tsinghua.edu.cn; dingmy@mail.tsinghua.edu.cn

K-P18

IN SITU TIME-CONTROLLABLE CHEMICAL PLASMA MEMBRANE
INJURY BY MICROFLUIDIC PROBE REVEALS SELF-REPAIR ABILITY OF
SINGLE CELLS
Yang Song1, Qiang Zhang*1, Yuxuan Li1, Jiaxu Lin1, and Jin-Ming
Lin*1

1 Department of Chemistry, Beijing Key Laboratory of Microanalytical
Methods and Instrumentation, Key Laboratory of Bioorganic
Phosphorus Chemistry & Chemical Biology (Ministry of Education),
Tsinghua University, Beijing 100084, China
E-mail: 1575724735@qq.com; jmlin@mail.tsinghua.edu.cn

K-P19

PLASMONIC NANOPORE WITH WITH FLUORESCENCE-
ELECTROCHEMICAL COUPLING FOR EXTRACELLULAR PH PH
MONITORING

Li-Dong Chen1, Di Zhang1, Zhao Li1, Shuo-Hui Cao1,2 and Yao-Qun
Li*1

1 Department of Chemistry and the MOE Key Laboratory of
Spectrochemical Analysis & Instrumentation, College of Chemistry
and Chemical Engineering, Xiamen University, Xiamen 361005, P. R.
China

2 Department of Electronic Science, Xiamen University, Xiamen
361005, P. R. China
E-mail: yaoqunli@xmu.edu.cn

K-P20

AUNPS@CU-MOF/MWCNTS ELECTROCHEMICAL
SENSOR COMBINED WITH MICROFLUIDIC CHIP STUDY IN
HYDROXYCHLOROQUINE DETECTION
Jiaqi ZHAO1,2, Ying KAN*2, Weifei ZHANG*2

1 College of Materials and Chemistry, China Jiliang University,
Hangzhou 310018, China

2 Key Laboratory of Chemical Metrology and Applications on
Nutrition and Health for State Market Regulation, Division of
Chemical Metrology and Analytical Science, National Institute of
Metrology, Beijing 100029, China
E-mail: zhangweifei@nim.ac.cn

K-P21

ALVEOLAR CHIP BASED ON PDMS MEMBRANE WITH REVERSE
OPAL STRUCTURE FOR DRUG METABOLISM RESEARCH
Danfeng XU, Weifei ZHANG*

Division of Chemical Metrology and Analytical Science, National
Institute of Metrology, Beijing 100029, China.
E-mail: zhangweifei@nim.ac.cn

K-P22

SIMULTANEOUS DETECTION OF HIGH-RISK HPV16 AND HPV18
USING CRISPR-CAS12A WWITHIN A A MICROFLUIDIC DUAL-
DROPLET DEVICE

Yin ZHAO1, 2, Guoyong XU1, *, Ying LI2, *, Yunhuang YANG2, *

1 State Key Laboratory of Hybrid Rice, Institute for Advanced Studies
(IAS), Wuhan University, Wuhan 430072, China

2 Wuhan Institute of Physics and Mathematics, Innovation Academy
for Precision Measurement Science and Technology, Chinese
Academy of Sciences, Wuhan 430071, China
E-mail: guoyong.xu@whu.edu.cn; liying@wipm.ac.cn; yang_yh@
apm.ac.cn

K-P23

SERS-BASED MICRODROPLET SENSOR FOR THE RAPID CLASSIFICATION OF SARS-COV-2 AND INFLUENZA A INFECTION
Xiangdong Yu1 and Jaebum Choo*1

1 Department of Chemistry, Chung-Ang University, Seoul 06974, South Korea
E-mail: jbachoo@cau.ac.kr

K-P24

A MULTIFUNCTIONAL ANISOTROPIC PATCH MANUFACTURED BY MICROFLUIDIC MANIPULATION FOR THE REPAIR OF INFARCTED MYOCARDIUM

Xiaomeng Jia and Qionglin Liang*

MOE Key Laboratory of Bioorganic Phosphorus Chemistry and Chemical Biology, Laboratory of Flexible Electronics Technology, Center for Synthetic and Systems Biology, Department of Chemistry, Tsinghua University, Beijing, 100084 China
E-mail: liangql@tsinghua.edu.cn

K-P25

ENHANCED NANOVESICLE FUSION DELIVERY BASED ON CYTOMEMBRANE CHOLESTEROL REGULATION

Wanting Hu, Hua Sun, and Qionglin Liang*

MOE Key Laboratory of Bioorganic Phosphorus Chemistry and Chemical Biology, Laboratory of Flexible Electronics Technology, Center for Synthetic and Systems Biology, Department of Chemistry, Tsinghua University, Beijing, 100084 China
E-mail: liangql@tsinghua.edu.cn

K-P26

A MICROFLUIDIC VESSEL-ON-A-CHIP PLATFORM FOR MODELING LIVER CANCER

Mingyang Chang1 and Hui Zeng*1

1Key Laboratory of Smart Drug Delivery, Ministry of Education, School of Pharmacy, Fudan University, 826 Zhangheng Road, Shanghai 201203, China
E-mail: zenghui@fudan.edu.cn

K-P27

ESTABLISHMENT AND REPRESENTATION OF TRANSWELL-BASED IN VITRO AIR-BLOOD BARRIER MODEL

SHAN WU, HUI ZENG

Key Laboratory of Smart Drug Delivery, Ministry of Education, School of Pharmacy, Fudan University, 826 Zhangheng Road, Shanghai, 201203, China
E-mail: zenghui@fudan.edu.cn

K-P28

DYNAMIC MULTI-ORGAN MODEL IN VITRO AND ITS APPLICATION IN ASSESSMENT OF TRIPLE NEGATIVE BREAST CANCER METASTASIS
Fan Cao, Hui Zeng *

Key Laboratory of Smart Drug Delivery, Ministry of Education, School of Pharmacy, Fudan University, 826 Zhangheng Road, Shanghai 201203, China
E-mail: zenghui@fudan.edu.cn

K-P29

DYNAMIC TISSUE MODEL IN VITRO AND ITS APPLICATION FOR ASSESSMENT OF MICROPLASTICS-INDUCED TOXICITY TO AIR-BLOOD (ABB)

Anchen Fu1, Sifeng Mao2, Nahoko Kasai2, Hui Zeng *1
1 Key Laboratory of Smart Drug Delivery, Ministry of Education, School of Pharmacy, Fudan University, 826 Zhangheng Road, Shanghai 201203, China
2 Department of Applied Chemistry, Graduate School of Urban Environmental Sciences, Tokyo Metropolitan University, Minamiohsawa, Hachioji, Tokyo 192-0397, Japan
E-mail: zenghui@fudan.edu.cn

K-P30

OPTICAL GLASS MICROSPHERE AMPLIFIED FLUORESCENCE APPLIED IN DETECTION OF BIOMARKERS

LINGRUI XU1, HUI ZENG1

1 School of Pharmacy, Fudan University, Shanghai, China
E-mail: xulr21@m.fudan.edu.cn



**QSight™ 三重四极杆
液质联用仪
完美体现时间价值**



PerkinElmer 公司创新设计的 QSight™ 三重四极杆液质联用仪具有超高的灵敏度，超长的稳定运行时间和便捷的远程软件支持性能等独特优势，能更广泛适用于食品安全，环境检测和工业研究等领域。

- 业内最新立式三重四极杆质谱仪，占地最小
- 具有同轴高温加热离子源，最大离子化效率
- 创新专利的加热诱导脱溶剂和层流离子传输技术，提高灵敏度的同时免于频繁维护
- 超快的正负模式切换时间，大幅提高工作效率



提交问卷，
欢迎来珀金埃尔默展台
领取精美礼品！

展位号：E1馆 255

珀金埃尔默企业管理（上海）有限公司 欢迎咨询：800 820 5046 / 400 820 5046

欲了解更多信息，请登录 www.perkinelmer.com.cn

GC 2400™ 平台带分体式触摸屏 气相色谱/质谱联用仪 分离更智能



- 分体式触摸屏提供实时状态通知
- 智能进样系统满足各种样品通量需求
- 易更换式检测器实现灵活应用
- 氢传感器保障安全性和可持续性



提交问卷，
欢迎来珀金埃尔默展台
领取精美礼品！

展位号：E1馆 255

珀金埃尔默企业管理（上海）有限公司 欢迎咨询：800 820 5046 / 400 820 5046

欲了解更多信息，请登录 www.perkinelmer.com.cn


PerkinElmer
For the Better