

Invited Speakers

1. Huiqi Zhang, Nankai University, China

Title: Complex biological sample-compatible fluorescent molecularly imprinted polymers

Abstract: Advanced imprinting techniques with excellent recognition properties

Biography:

2. Lingxin Chen, Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, China



Title: Molecular imprinting technology for Environmental Applications

Abstract:

Biography: Lingxin Chen is a professor at Yantai Coastal Zone Research Institute, Chinese Academy of Sciences. Committed to the interdisciplinary field of chemistry and geoscience, facing the typical pollutants in the coastal environment, innovating chemical measurement technology, and mainly carrying out the research and development of environmental analysis and monitoring theory and online monitoring technology, that is, using nano materials (molecularly imprinted polymers, et al), biomaterials, photoelectric and magnetic analysis and detection technology, building micro/nano analysis sensor interface, and exploring new principles, methods and new instrument technology of analysis and monitoring.

He has published 3 books, more than 400 peer-reviewed articles in journals such as Analytical Chemistry, Journal of Hazardous Materials, Nature Sustainability. He was selected as a Clarivate "Highly Cited Researcher" in the Cross-Field category in both 2020 and 2021. He was also selected as "Highly Cited Scholar" (Environmental Science and Engineering) of Elsevier 2021 in China.

3. Zihui Meng, Beijing Institute of Technology, China

Title: Fabrication of molecularly imprinted colloids for the sensing of explosives

Abstract:

Biography: Zihui Meng received his Ph.D. degree in philosophy from Dalian Institute of Chemical & Physics, Chinese Academy of Sciences in 1998. He then carried out his postdoctoral research at Tokyo University of Agriculture & Technology and UC Riverside. In 2005, he joined the Department of Applied Chemistry at Beijing Institute of Technology. His research areas include nano material, molecular imprinting, photonic crystal, chemical sensor and biosensor.

4. Li Qi, Institute of Chemistry, Chinese Academy of Sciences, China

Title: Stimuli-responsive MIPs for selective capture and release of proteins

Abstract:

Biography: Dr. Li Qi is a Professor in Institute of Chemistry, Chinese Academy of Sciences. She carried out her PhD research in Hebei University (China) on bio-chromatography and joined the institute in 2002.

Her research interests are mainly focus on the development of unique polymers for bio-chromatography and bio-sensing applications. These include design and preparation of polymer-monoliths, molecularly imprinted polymers (MIPs) and stimuli-responsive porous polymer membrane-based enzyme reactors, and separation of bio-molecules, chiral analysis and enzymatic kinetics study. As the corresponding author, she has published over 130 papers in SCI academic journals on these subjects (such as *Anal. Chem.*, *Biosens. Bioelectron.*, *ACS Appl. Mater. Interfaces*) and held nine patents. She was awarded the first class Scientific and Technical Award from China Association for Instrumental Analysis (CAIA) in 2012 and 2016, respectively, and served as an editorial board member of the *Journal of Analytical Science and Technology*.

5. Elena Piletska, University of Leicester, UK

Title: In vivo applications of MIP nanoparticles

Abstract:

Biography: Elena Piletska was born in Ukraine and got her first degree in Microbiology from Moscow State University in 1985 followed by PhD degree in 1989 from Bach's Institute of Biochemistry, Moscow. In 1998 she was employed by Cranfield University, UK, where she was an investigator in 30+ national and international projects. Dr Piletska is currently employed as an Associate Professor of Bioanalytical Chemistry in the School of Chemistry, University of Leicester, UK. Her main area of expertise is the Life Science applications of molecularly imprinted polymers (MIPs) in imaging, controlled drug delivery and surface proteomics. Other research interests include a design of the bespoke adsorbents for bio-refinery, environmental and clinical applications, a development of the polymers for the control of bacterial Quorum Sensing and catalytic nanomaterials for prevention of biofilms. Elena is a co-founder of a spinout company MIP Discovery Ltd and author of 190 publications including 23 patents (H-index 48).

6. Yanyan Huang, Institute of Chemistry, Chinese Academy of Sciences, China

Title: Biomimetic Peptide Binders and Affinity Nanointerfaces for Synergetic Cancer Theranostics

Abstract:

Biography: Yanyan Huang obtained her B.Sc. degree in Chemistry from Wuhan University in 2004, and her Ph.D. degree from Institute of Chemistry, Chinese Academy

of Sciences (ICCAS) in 2009. She joined ICCAS in 2009 and currently is an Associate Professor. From February 2017 to June 2018, she studied in Department of Chemistry, Texas A&M University as a visiting scholar. Her research is focused on peptide binders and functionalized nanointerfaces for separation, biosensing and biomedical applications. She has published more than 60 peer-reviewed articles in journals including *Angew. Chem. Int. Ed.*, *Chem. Sci.* and *Anal. Chem.*. She was awarded the member of Youth Innovation Promotion Association CAS in 2015, and Excellent Young Scientists Fund from National Natural Science Foundation of China in 2021.

7. Kaiguang Yang, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China

Title: Molecular Imprinting towards Clinical Liquid Biopsy Markers: from Circulating Tumor Cells (CTCs) to Exosomes.

Abstract:

Biography: Kaiguang Yang, Professor of Analytical Chemistry, works in CAS Key Laboratory of Separation Sciences for Analytical Chemistry, Dalian Institute of Chemical Physics (DICP), Chinese Academy of Sciences (CAS). He obtained his Ph.D. Biomedical Engineering from Sichuan University in 2009 (Supervisor: Prof. Changsheng Zhao). As the joint-training Ph.D student, he conducted the research in Department of Pure and Applied Biochemistry, Lund University, Sweden from September 2007 to February 2009 (Supervisor: Prof. Lei Ye). He started his career at DICP, July, 2009, and was promoted as the professor, July, 2017. His research interest is focused on the new sample pretreatment techniques of proteomics and synthetic biology, including function sample pretreatment material for the enrichment of target proteins in the complex proteome sample, and molecular imprinting materials for the targets (chiral drugs, proteins, cells and exosomes) recognition.

8. Clovia Holdsworth, Univ. Newcastle, Australia

Title: MIP Synthesis, Binding Characterisation and Non-imprinting Molecular Capture: All About Alternatives

Abstract:

Biography: Associate Professor Clovia Holdsworth is a teaching and research academic staff of the Discipline of Chemistry, School of Environmental and Life Sciences, The University of Newcastle, Australia. As a chemist with training radical polymer synthesis, her research focus is functional polymeric materials for molecular capture including molecularly imprinted polymers and their analytical characterisation. She contributes to undergraduate teaching of the Bachelor of Science program as well as other STEM-related degrees and currently holds the position of Deputy Head of School for Education.

9. Qiong Jia, Jilin University, China

Title: Design of host-guest anchored epitope imprinting polymers and application to sensitive detection of cancer biomarkers

Abstract:

Biography: Professor Qiong Jia obtained her PhD (2003) at Changchun Institute of Applied Chemistry, Chinese Academy of Sciences (China), and then worked as a postdoctoral fellow (2003-2005) at Kitakyushu University (Japan). She is now a TANG Auchin Scholar in College of Chemistry and an adjunct professor in College of Life Sciences, Jilin University (China). Her research is focused on molecular recognition and separation/analysis as well as related applications. She has more than 160 scientific publications and 7 authorized patents. She is also in the editorial board of peer reviewed journals such as Chinese Chemical Letters.

10. Shun Feng, Southwest Jiaotong University

Title: Preparation of two different peptide-MIPs for cancer remedy

Abstract:

Biography: He is now a professor at Southwest Jiaotong University, Chengdu, China. In 2008, he obtained his PhD degree in analytical chemistry from Dalian Institute of Chemical Physics, Chinese Academy of Sciences. And in 2008-2010, he worked as a post doctor in Department of Surgery, University of Michigan. His current research interest is chromatography, proteome research, biomaterials, and electrochemical sensors and their applications in life chemistry, and published more than 100 papers in Anal Chem, J Chromatogr A, Talanta, Proteomics, etc.

11. Xiantao Shen, Huazhong University of Science and Technology, China

Title: Next generation of bacterial imprinting based on bacterial chemotaxis

Abstract:

Biography: Professor Xiantao Shen received his PhD degree from Huazhong University of Science and Technology, China in 2010. He worked in Lund University in Sweden as a postdoctoral researcher with professor Lei Ye from 2010 to 2012. From 2013 to 2014, he worked as a guest researcher in department of biomedical science with professor Börje Sellergren in Malmö University in Sweden. Now, he is the director of institute of environmental medicine at school of public health, Huazhong University of Science and Technology. His current research interests include the preparation of molecularly imprinted polymers and their applications in the field of environmental science. In recent years, he has been granted 3 projects by the National Natural Science Foundation of China and 1 key research project of by the National Key Research and Development Project of China. So far, he has published more than 60 papers in molecular imprinting.

12. Qin Xu, Yangzhou University

Title: Molecular imprinted polymers functionalized surface for small molecular analysis

Abstract: With the improvement of living standards, people pay more attention to the quality and safety of food. In some cases, small molecules are used as additives. It is necessary to develop some fast, accurate and sensitive technologies to protect food safety.

Molecular imprinting technology has the function of selective recognition of target molecules, which can significantly improve the detection sensitivity. The MIP

preparation process can overcome the disadvantages of the production of antibodies which is laborious and expensive, and the difficult to generate specific antibodies. The surface with electrochemical, photoelectrochemical and spectroscopic characters would provide useful platform for the construction of portable and simple sensors for small molecules detection when they are combined with the MIPs. Our groups focused on the design of portable sensors. We would summarized the recent works related to the MIP functional surface for analysis.

Biography: Qin Xu received her PhD degree in analytical chemistry from Nanjing University in 2006. Currently she is the professor in analytical chemistry at the College of Chemistry and Chemical Engineering, Yangzhou University. Her major interests are the development of sensors.

13. Lianghai Hu, Jilin University, China

Title: Molecular Imprinting for Recognition of Protein, Virus, Exosome and Beyond

Abstract:

Biography: Lianghai Hu, Ph.D., “Tang Aoqing” Professor of Jilin University 1999-2003, undergraduate, College of Chemistry, Jilin University; 2003-2009, Ph.D., Dalian Institute of Chemical Physics, Chinese Academy of Sciences; 2009-2011, Postdoctoral Fellow, Department of Biochemistry, Purdue University, USA; 2011-present, School of Life Sciences, Jilin University.

Dr. Lianghai Hu has been engaged in the development of new methods of proteomics and molecular imprinting for life science since 2004. He has published over 60 papers in international journals such as *Angew. Chem. Int. Ed.*, *Theranostics*, *Chem. Comm.*, *Anal. Chem.* He is currently the committee members of Chinese Human Proteome Organization (CNHUPO) and the Chinese Society of Mass Spectrometry (CSMS).