

Tentative Outline

Special Thematic Issue for the journal *Current Analytical Chemistry*

THEMATIC ISSUE TITLE <bioanalysis>

Guest Editors: Jinghong Li

• **Scope of the Thematic Issue:**

This thematic issue focus on both analytical tools used to measure and obtain the composition, structure, function and chemical information of biological substances. Should cover the structural and functional analysis of biological macromolecules, cell analysis, in vivo analysis, separation and analysis of complex biological systems, molecular recognition, metabolomics, proteomics and bioinformatics, intending to study the microscopic world behind life phenomena, understand the occurrence and development of life processes, and control life processes.

Keywords: Biosensor, Spectroscopy, Electroanalysis, Biomembranes, Cellular function, DNA analytical chemistry, Anticancer activity, in vivo Analysis

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- *Spectroscopy and electrochemical biological analysis*
- *Cellular and in vivo biological imaging analysis*
- *Medical diagnosis and biosensor*
- *Separation analysis of biological system*
- *Metabolomics and Proteomics*
- *Chemometrics and bioinformatics analysis*

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses, and email addresses should be provided.

- *DNA Bases Enable Best Analytical Chemistry. Weihong Tan*, Professor and Academician of CAS, Molecular Science and Biomedicine Laboratory (MBL), State Key Laboratory for Chemo/Bio-Sensing and Chemometrics, College of Chemistry and Chemical Engineering, College of Life Sciences, Aptamer Engineering Center of Hunan Province, Hunan University, Changsha, 410082, China. E-mail: tan@chem.ufl.edu*
- *Nanosafety for Green Nanotechnology (TUD). Yuliang Zhao*, Professor and Academician of CAS, CAS Center for Excellence in Nanoscience, CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, National Center for Nanoscience and Technology (NCNST), Beijing, 100190, China. E-mail: zhaoyl@nanoctr.cn*
- *Micro- & Nanoelectrodes for in vivo Analysis at the Single Cell Level. Christian Amatore*, Professor and Academician of the French Academy of Sciences (FAS), CNRS - Ecole Normale Supérieure, PSL Research University - Sorbonne University, UMR 8640 "PASTEUR", 75005 Paris, France. E-mail: christian.amatore@ens.fr*
- *Novel Metalloenzymes as ORR Catalysts for Fuel Cells with Minimal Overpotentials and as Electrochemical Sensors for Medical Diagnostics. Yi Lu*, Professor of Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, IL 61801. E-mail: yi-lu@illinois.edu*
- *Surface-Confined Electrochemiluminescence Microscopy of Single Cells (TUD). Neso Sojic*, Professor, Bordeaux INP, Institute of Molecular Science (ISM), and CNRS UMR 5255, University of Bordeaux, 33607*

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- *Electrochemical Aspects of Argentometric Titration-Solubility of Silver Halides and the Nernst Equation (TUD).* Takashi Kakiuchi*, Professor, pH Science and Technology Laboratory, Kinomoto 1058, Wakayama 640, Japan. E-mail: kakiuchi.takashi.55e@st.kyoto-u.ac.jp
- *In situ Analysis of Transformation of Inorganic Nanomaterials in Biological System by Synchrotron Radiation X-ray Probe Techniques.* Chunying Chen*, Professor, CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety and CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology, Beijing, 100190, China. E-mail: chenchy@nanoctr.cn
- *Subcellular Organelle Targeted Enhancement of the Microenvironment-Responsive Tumor Therapy.* Jinghong Li*, Professor and Academician of CAS, Department of Chemistry, Key Laboratory of Bioorganic Phosphorus Chemistry & Chemical Biology, Tsinghua University, Beijing, 100084, China. Email: jhli@mail.tsinghua.edu.cn; Xiue Jiang*, Professor, State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, China. E-mail: jiangxiue@ciac.ac.cn
- *Soft Wearable Electrochemical Biosensor.* Wenlong Cheng*, Professor, Department of Chemical Engineering, Monash University, Clayton, Victoria, 3800, Australia. E-mail: wenlong.cheng@monash.edu
- *Single Molecule Force Spectroscopy: A Powerful Tool for Studying Cell Membranes.* Hongda Wang*, Professor, State Key Laboratory of Electroanalytical Chemistry, Research Center of Biomembranomics, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, China. E-mail: hdwang@ciac.ac.cn
- *Composite Materials Based on Metal-Organic Frameworks for Sensing Applications.* Tie Wang*, Professor, Beijing National Laboratory for Molecular Sciences, Key Laboratory of Analytical Chemistry for Living Biosystems, Institute of Chemistry, The Chinese Academy of Sciences, Beijing, 100190, China. Email: wangtie@iccas.ac.cn
- *Recent Advances in Nanomaterial-Based Luminescent ATP Sensors.* Li Shang*, Professor, State Key Laboratory of Solidification Processing, Center for Nano Energy Materials, School of Materials Science and Engineering, Northwestern Polytechnical University and Shaanxi Joint Laboratory of Graphene (NPU), Xi'an, 710072, China. E-mail: li.shang@nwpu.edu.cn
- *Recent Advances on Single-atom catalysts in biosensing application.* Shaojun Guo*, Professor, Department of Materials Science and Engineering, College of Engineering, Peking University, Beijing, 100871, China. E-mail: guosj@pku.edu.cn
- *Fe-based Nanozymes Applied in Analytical Chemistry.* Shaoqin Liu*, Professor, School of Life Science and Technology, State Key Laboratory of Urban Water Resource and Environment, Harbin Institute of Technology, Harbin, 150080, China. E-mail: shaoqinliu@hit.edu.cn; Zhiyong Tang*, Professor, CAS Key Laboratory of Nanosystem and Hierarchical Fabrication, CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology, Beijing, 100190, China. Email: zytang@nanoctr.cn
- *Bipolar electrochemistry used in the electrochemiluminescence sensing.* Jing Li*, Professor, State Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, China. E-mail: lijingce@ciac.ac.cn
- *Covalent Organic Frameworks for Fluorescent and Electrochemical Biosensing: Recent Developments and Future Challenges,* Li Wang*, Key Laborator of Functional Small Organic Molecule, Ministry of Education, Key Laboratory of Chemical Biology, Jiangxi Province, College of Chemistry and Chemical Engineering, Jiangxi Normal University, 99 Ziyang Road, Nachang 330022, China. E-mail: lwang@jxnu.edu.cn

Schedule:

- ✧ Thematic issue submission deadline:
- ✧ Manuscript Submission Dec 1, 2020
- ✧ Peer Review Due: Jan 1, 2020
- ✧ Revision Due: Feb 25, 2020
- ✧ Notification of Acceptance: Mar 15, 2021

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