

PERSONAL:

Name: Meisheng Wu
Department: Department of Chemistry, College of Sciences
Gender: Female
Degree: Ph.D.
Title: Associate Professor
Major: Analytical Chemistry
Graduated University: Nanjing University
Research Field: Focuses on developing novel ECL biosensing models and miniaturized ECL biosensors for the determination of various cancer cells and biomarkers.
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ACADEMIC CAREER:

2016, postdoctoral fellow, Nanjing University.

2014, Associate Professor, Nanjing Agriculture University, College of Science.

EDUCATION:

B. S. 2006, Chemistry, Soochow University;

M. S. 2009, Analytical Chemistry, Soochow University;

Ph. D. 2012, Analytical Chemistry, Nanjing University.

RESEARCH PROJECTS AND FUNDS:

(3) "Novel biosensing approach based on Janus bipolar electrode and its applications" supported by NSFC, 2017-2020.

(2) "Study on electrochemiluminescence bioanalysis based on bipolar electrode" supported by NSFC, 2014-2016.

(1) "Study on wireless electrochemiluminescence bioanalysis based on nanoparticles" supported by the Jiangsu Province, 2013-2016.

TEACHING INFORMATION:

Teach instrument analysis course and Experiment for Instrument Analysis.

PUBLICATIONS:

(15) **Wu, M. S.**; Sun, X. T.; Zhu, M. J.; Chen, H. Y.; Xu, J. J., Mesoporous silica film-assisted amplified electrochemiluminescence for cancer cell detection. *Chemical Communications*. **2015**, 51 (74), 14072-14075.

(14) **Wu, M. S.**; Yuan, D. J.; Xu, J. J.; Chen, H. Y., Electrochemiluminescence on bipolar electrodes for visual bioanalysis. *Chemical Science*. **2013**, 4 (3), 1182-1188;

(13) **Wu, M. S.**; Yuan, D. J.; Xu, J. J.; Chen, H. Y., Sensitive Electrochemiluminescence Biosensor Based on Au-ITO Hybrid Bipolar Electrode Amplification System for Cell Surface Protein Detection. *Analytical Chemistry*. **2013**, 85 (24), 11960-11965.

(12) **Wu, M. S.**; Xu, B. Y.; Shi, H. W.; Xu, J. J.; Chen, H. Y., Electrochemiluminescence analysis

- of folate receptors on cell membrane with on-chip bipolar electrode. *Lab on a Chip*. **2011**, *11* (16), 2720-2724;
- (11) **Wu, M. S.**; Shi, H. W.; Xu, J. J.; Chen, H. Y., CdS quantum dots/Ru(bpy)(3)(2+) electrochemiluminescence resonance energy transfer system for sensitive cytosensing. *Chemical Communications*. **2011**, *47* (27), 7752-7754.
- (10) **Wu, M. S.**; Shi, H. W.; He, L. J.; Xu, J. J.; Chen, H. Y., Microchip Device with 64-Site Electrode Array for Multiplexed Immunoassay of Cell Surface Antigens Based on Electrochemiluminescence Resonance Energy Transfer. *Analytical Chemistry*. **2012**, *84* (9), 4207-4213.
- (9) **Wu, M. S.**; Qian, G. S.; Xu, J. J.; Chen, H. Y., Sensitive Electrochemiluminescence Detection of c-Myc mRNA in Breast Cancer Cells on a Wireless Bipolar Electrode. *Analytical Chemistry*. **2012**, *84* (12), 5407-5414.
- (8) **Wu, M. S.**; Liu, Z.; Xu, J. J.; Chen, H. Y., Highly Specific Electrochemiluminescence Detection of Cancer Cells with a Closed Bipolar Electrode. *Chemelectrochem* **2016**, *3* (3), 429-435.
- (7) **Wu, M. S.**; Liu, Z.; Shi, H. W.; Chen, H. Y.; Xu, J. J., Visual Electrochemiluminescence Detection of Cancer Biomarkers on a Closed Bipolar Electrode Array Chip. *Analytical Chemistry*. **2015**, *87* (1), 530-537.
- (6) **Wu, M. S.**; He, L. J.; Xu, J. J.; Chen, H. Y., RuSi@Ru(bpy)(3)(2+)/Au@Ag₂S Nanoparticles Electrochemiluminescence Resonance Energy Transfer System for Sensitive DNA Detection. *Analytical Chemistry*. **2014**, *86* (9), 4559-4565.
- (5) Miao, S. S.; **Wu, M. S.**; Ma, L. Y.; He, X. J.; Yang, H., Electrochemiluminescence biosensor for determination of organophosphorous pesticides based on bimetallic Pt-Au/multi-walled carbon nanotubes modified electrode. *Talanta*. **2016**, *158*, 142-151.
- (4) Zhang, H. R.; **Wu, M. S.**; Xu, J. J.; Chen, H. Y., Signal-On Dual-Potential Electrochemiluminescence Based on Luminol-Gold Bifunctional Nanoparticles for Telomerase Detection. *Analytical Chemistry*. **2014**, *86* (8), 3834-3840.
- (3) Zhang, H. R.; Wang, Y. Z.; **Wu, M. S.**; Feng, Q. M.; Shi, H. W.; Chen, H. Y.; Xu, J. J., Visual electrochemiluminescence detection of telomerase activity based on multifunctional Au nanoparticles modified with G-quadruplex deoxyribozyme and luminol. *Chemical Communications*. **2014**, *50* (83), 12575-12577.
- (2) Shi, H. W.; Zhao, W.; Liu, Z.; Liu, X. C.; **Wu, M. S.**; Xu, J. J.; Chen, H. Y., Joint enhancement strategy applied in ECL biosensor based on closed bipolar electrodes for the detection of PSA. *Talanta*. **2016**, *154*, 169-174.
- (1) Shi, H. W.; **Wu, M. S.**; Du, Y.; Xu, J. J.; Chen, H. Y., Electrochemiluminescence aptasensor based on bipolar electrode for detection of adenosine in cancer cells. *Biosensors & Bioelectronics*. **2014**, *55*, 459-463.