

Biographical Sketch: M. Lei Geng, Professor of Chemistry

I. Professional Preparation:

Ph.D. (Analytical Chemistry) Duke University, 1994

B.S. (Chemistry) University of Science and Technology of China, 1986

II. Appointments:

Professor of Chemistry, University of Iowa; 2008 – current

Associate Professor of Chemistry, University of Iowa; 2002 – 2008

Assistant Professor of Chemistry, University of Iowa; 1995 – 2002

III. Selected Ten Publications:

1. Brumar, C.; Geng, M. L. Interaction of Surfactants with Hydrophobic Surfaces in Nanopores. *Langmuir* **2010**, *26*, 19091–19099.
2. Skvortsova, Y. A.; Freeney, R. M.; Zhong, Z.; Geng, M.L. Tissue Phantoms Constructed with Hydrophobic Nanoporous Silica Particles. *Anal. Chem.* **2010**, *82*, 6712–6716.
3. Li, Y.; de Silva, P.; Xi, L.; van Winkle, A.; Lin, J.; Ahmed, S.; Geng, M.L. Extraction and Separation of Chinese Hamster Ovary Cells with Capillary Electrophoresis. *Biomed. Chromatogr.* **2008**, *22*, 1384-1384.
4. Zhong, Z.; Geng, M. L. Microscopic Origins of Band Broadening in Chromatography. Polarity Distribution in C18 Stationary Phase Probed by Confocal Ratiometric Imaging of Nile Red. *Anal. Chem.* **2007**, *79*, 6709-6717.
5. Gao, Y.; Zhong, Z.; Geng, M. L. Calibration of Probe Volume in Fluorescence Correlation Spectroscopy. *Appl. Spectrosc.* **2007**, *61*, 956-962.
6. Wang, G.; Gao, Y.; Geng, M.L. Generalized Two-Dimensional Hetero-correlation Analysis of Spectrally resolved and Temporally resolved Fluorescence of 8-Anilino-1-naphthalenesulfonate – Apomyoglobin Complex with pH Perturbation. *J. Phys. Chem. B* **2006**, *110*, 8506-8512.
7. Wang, G.; Geng, L. Statistical and Generalized Two-Dimensional Correlation Spectroscopy of Multiple Ionization States. Fluorescence of Neurotransmitter Serotonin. *Anal. Chem.* **2005**, *77*, 20-29.
8. Wang, G.; Lowry, M.; Zhong, Z.; Geng, L. Direct Observation of Frits and Dynamic Air Bubble Formation in Capillary Electrochromatography Using Confocal Fluorescence Microscopy. *J. Chromatogr. A* **2005**, *1062*, 275-283.
9. Crowell, E.; Wang, G.; Cox, J.; Platz, C.P.; Geng, L. Correlation Coefficient Mapping in Fluorescence Spectroscopy. Classification of Tissue Fluorescence for Cancer Diagnosis. *Anal. Chem.* **2005**, *77*, 1368-1375.
10. Zhong, Z.; Lowry, M.; Wang, G.; Geng, L. Probing Strong Adsorption of Solute onto C18 Silica Gel with Fluorescence Correlation Imaging and Single Molecule Spectroscopy under RPLC Conditions. *Anal. Chem.* **2005**, *77*, 2303-2310.

IV. Synergistic Activities:

Professor Geng is a member of the Optical Science and Technology Center (OSTC), the Center for Biocatalysis and Bioprocessing (CBB) and the Nanoscience and Nanotechnology Institute (NNI) at the University of Iowa.

V. Engagement:

1. International Advisory Board, the Seventh International Symposium on Two-Dimensional Correlation Spectroscopy (2DCOS-7), Seoul, Korea, planned for June 2013.
2. Advisory Board, the Fourth International Symposium on Two-Dimensional Correlation Spectroscopy, Beijing, China, August 2007.
3. Member, Organizing Committee, the First Asian Symposium on Two-Dimensional Correlation Spectroscopy, Kyungju, Korea, June 2004.
4. Chair, the Third International Symposium on Two-Dimensional Correlation Spectroscopy, Delevan, Wisconsin, August 2005.
5. Review panel member, NSF Chemical Measurements and Imaging (CMI) Program, November 2010.
6. Review Panel Member, NIH Center Site Visit, November 2010.

7. Review panel member, NIH study section, Instrumentation and System Development (ISD), 2007-2008.
8. Review panel member, NIH study section, Chemistry and Biophysics SBIR/STTR Panel (ZRG1 BCMB-L), 2006-2007.
9. Review panel member, NIH study section, Technology Development (ZRG1 F14-A), March 2007.
10. Review panel member, NIH study section, Instrumentation and System Development (ISD), 2004-2006.
11. Mail Reviewer, NIH Study Section, Enabling Bioanalytical & Biophysical Technologies (EBT), November 2006.
12. Review panel member, Special NIH Study Section, Centers of Cancer Nanotechnology Excellence (to establish five CCNEs with \$25 million budget for each center), July 2005.
13. Review panel member, NIH Study Section, Bioanalytical Engineering and Chemistry (BECM), October 2004.
14. Guest Editor, Special Issue on Two-Dimensional Correlation Spectroscopy, Journal of Molecular Structure, 2006.
15. National Tour Speaker, the Society of Applied Spectroscopy, 2002.

Total Number of Graduate Students Advised: 24

Total Number of Postdoctoral Scholars Advised: 3