

Degrees Earned:

Ph.D., Analytical Chemistry, University of Missouri-Columbia, 1999

Thesis: "ChemChar Gasification of Radioactive, Inorganic, and Organic Laden Wastes"

Thesis Advisor: Stanley E. Manahan

M.S., Chemistry, Missouri State University, 1996

B.S., Chemistry (cum laude) Missouri State University, 1994

c. Academic Experience:

Department Chair, 2015 - 2021

College of Arts and Sciences Endowed Professor, 2011 – 2015

Graduate Program Director (2011 – 2015)

Professor of Chemistry, Saint Louis University, 2012 – present

Associate Professor of Chemistry, Saint Louis University, 2008 – 2012

Assistant Professor of Chemistry, Saint Louis University, 2003 – 2008

Assistant Professor of Chemistry, University of Iowa, 2002 – 2003

National Institutes of Health Post-Doctoral Fellow, 2001 – 2002

3. Associate Editor for *Analytical Methods* (RSC journal), 2013-2017 (editor for ~350 manuscripts a year)
4. Named Fellow, Royal Society of Chemistry (2014)
5. Named College of Arts and Sciences Endowed Professor of Chemistry, July 2011 - 2015
6. Graduate Mentor Award, Saint Louis University Graduate Student Association, 2011 (presented at the Arts and Sciences Pre-Commencement)
7. Secondary appointment in Department of Pharmacological & Physiological Science, Saint Louis University, 2010-present
8. Co-chair of 65<sup>th</sup> Midwestern Universities Analytical Chemistry Conference (MUACC), scheduled to be on the Saint Louis University Campus in Fall of 2011 (attended by ~100 faculty from Midwest Universities)
9. Member, Executive Council of Laboratory Automation Section, Society for Laboratory Automation and Screening, 2010-2011
10. Member, Board of Directors, Asso

3. N.A. Lacher, S.M. Lunte,<sup>\*</sup> and R.S. Martin,<sup>\*</sup> "Development of a Microfabricated Palladium Decoupler/Electrochemical Detector for Microchip Capillary Electrophoresis Using a Hybrid Glass/Poly(dimethylsiloxane) Device" *Anal. Chem.*, **2004**, *74*, 1136-1143. (*note: co-corresponding authors*)
4. A.K. Price,<sup>‡</sup> D.J. Fischer, R.S. Martin, and D.M. Spence,<sup>\*</sup> "Deformation-Induced Release of ATP from Erythrocytes in a Poly(dimethylsiloxane)-Based Microchip with Channels That Mimic Resistance Vessels," *Anal. Chem.*, **2004**, *76*, 4849-4855.
5. D.M. Spence,<sup>\*</sup> N.J. Torrence,<sup>‡</sup> M.L. Kovarik,<sup>†</sup> and R.S. Martin, "Amperometric Determination of Nitric Oxide Derived from Pulmonary Artery Endothelial Cells Immobilized in a Microchip Channel," *Analyst*, **2004**, *129*, 995-1000.
6. B.H. Huynh, B.A. Fogarty, R.S. Martin, and S.M. Lunte,<sup>\*</sup> "On-Line Coupling of Microdialysis Sampling with Microchip-Based Capillary Electrophoresis," *Anal. Chem.*, **2004**, *76*, 6440-6447.
7. M.L. Kovarik,<sup>†</sup> M.W. Li,<sup>‡</sup> and R.S. Martin,<sup>\*</sup> "Integration of a Carbon Microelectrode with a Microfabricated Palladium Decoupler for use in Microchip Capillary Electrophoresis/Electrochemistry," *Electrophoresis*, **2005**, *26*, 202-210.
8. B.A. Fogarty, K.E. Heppert, T.J. Cory, K.R. Hulbutta, R.S. Martin and S.M. Lunte,<sup>\*</sup> "Rapid Fabrication of Poly(dimethylsiloxane)-based Microchip Capillary Electrophoresis Devices using CO<sub>2</sub> Laser Ablation, *Analyst*, **2005**, *130*, 924-930.
9. C.M. Moore,<sup>‡</sup> S.D. Minter,<sup>\*</sup> and R.S. Martin, "Microchip-based Ethanol/Oxygen Biofuel Cell," *Lab Chip*, **2005**, *5*, 218-225
10. M.W. Li,<sup>‡</sup> D.M. Spence, and R.S. Martin,<sup>\*</sup> "A Microchip-Based System for Immobilizing PC 12 Cells and Amperometrically Detecting Catecholamines Released After Stimulation with Calcium," *Electroanalysis*, **2005**, *17*, 1171-1180.
11. A.K. Price,<sup>‡</sup>

- Continuous-Flow Sampling to Microchip Electrophoresis,” *Anal. Chem.*, **2006**, 78, 1042-1051.
14. M.J. Moehlenbrock,<sup>‡</sup> A.K. Price,<sup>‡</sup> and R.S. Martin,\* “Use of Microchip-Based Hydrodynamic Focusing to Measure the Deformation-Induced Release of ATP from Erythrocytes,” *Analyst*, **2006**, 131, 930-937.
  15. L.C. Mecker<sup>‡</sup> and R.S. Martin,\* “Use of Micromolded Carbon Dual Electrodes with a Palladium Decoupler for Amperometric Detection in Microchip Electrophoresis,” *Electrophoresis*, **2006**, 27, 5032-5042
  16. R.S. Martin, P.D. Root, and D.M. Spence,\* “Microfluidic Technologies as Platforms for Performing Quantitative Cellular Analyses in an In Vitro Environment,” *Analyst*, **2006**, 131, 1197–1206.
  17. M.W. Li<sup>‡</sup> and R. S. Martin,\* “Integration of Continuous Flow Sampling to Microchip Electrophoresis using Poly(dimethylsiloxane)-based Valves in a Reversibly Sealed Device,” *Electrophoresis*, **2007**, 28, 2478–2488.
  18. L.C. Mecker<sup>‡</sup> and R.S. Martin,\* “Coupling Microdialysis Sampling to Microchip Electrophoresis in a Reversibly Sealed Device,” *JALA*, **2007**, 12, 296-302.
  19. M.J. Moehlenbrock,<sup>‡</sup> and R.S. Martin,\* “Development of an On-Chip Injector for Microchip-based Flow Analyses using Laminar Flow,” *Lab Chip*, **2007**, 7, 1589-1596.
  20. L.I. Genes, N. Villiere, M.K. Hulvey,<sup>‡</sup> R. S. Martin, and D.M. Spence,\* “Addressing a Vascular Endothelium Array with Blood Components using Underlying Microfluidic Channels,” *Lab Chip*, **2007**, 7, 1256-1259.
  21. M.K. Hulvey,<sup>‡</sup> L. Genes, D.M. Spence, and R.S. Martin,\* “Fabrication and Evaluation of a 3-Dimensional Microchip Device where Carbon Microelectrodes Individually Address Channels in the Separate Fluidic Layers,” *Analyst*, **2007**, 132, 1246-1253.
  22. J.F. Kauffman,\* S.J. Gilliam, and R.S. Martin, “Chemical Imaging of Pharmaceutical Materials: Fabrication of Micropatterned Resolution Targets,” *Anal. Chem.*, **2008**, 80, 5706-5712.
  23. M.W. Li<sup>‡</sup> and R.S. Martin,\* “Microchip-based Integration of Cell Immobilization, Electrophoresis, Post-Column Derivatization, and Fluorescence Detection for Monitoring the Release of Dopamine from PC 12 Cells,” *Analyst*, **2008**, 133, 1358-1366.



37. A.S. Johnson<sup>†</sup>, A. Selim

Scattering and Electrochemical Detection,” *Anal. Chem.*, **2015**, *87*, 4347–4355.

48. A.M. Pentecost

