ADAM THOMAS WOOLLEY

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Education
Ph.D. Chemistry, University of California, Berkeley, 1997 (Richard A. Mathies, advisor).
B.S. (summa cum laude) Chemistry, Brigham Young University, 1992.

Professional Experience
University Professor, Department of Chemistry and Biochemistry, Brigham Young University, 2015-present.
Professor, Department of Chemistry and Biochemistry, Brigham Young University, 2010-present.
Associate Department Chair, Department of Chemistry and Biochemistry, Brigham Young University, 2010-2016.
Associate Professor, Department of Chemistry and Biochemistry, Brigham Young University, 2006-2010.
Assistant Professor, Department of Chemistry and Biochemistry, Brigham Young University, 2000-2006.
Postdoctoral fellow, Chemistry and Chemical Biology, Harvard University (Charles M. Lieber, advisor), 1998-2000.

Awards and Fellowships
American Electrophoresis Society (AES) Mid-Career Award, 2015.
University Professorship, Brigham Young University, 2015.
Karl G. Maeser Research and Creative Arts Award, Brigham Young University, 2014.
Reed M. Izatt and James J. Christensen Faculty Excellence in Research Award, Brigham Young University, 2012.
Brigham Young University, Young Scholar Award, 2008.
Brigham Young University, College of Physical and Mathematical Sciences Young Scholar Award, 2008.
American Chemical Society, Division of Analytical Chemistry Award for Young Investigators in Separation Science, 2007.
Presidential Early Career Award for Scientists and Engineers (PECASE) – National Institutes of Health, 2006.
Cancer Research Fund Runyon-Winchell Foundation Postdoctoral Fellowship, 1998.
Fannie and John Hertz Foundation Thesis Prize, 1998.
Fannie and John Hertz Foundation Graduate Fellowship, 1993.
National Science Foundation Graduate Fellowship, 1992.
Trustees Scholarship (4 year, full tuition), Brigham Young University, 1986.

Professional Societies
American Chemical Society, member, 1996-present.

Phi Kappa Phi Honor Society, member, 1991-present.
American Electrophoresis Society (AES), member, 2015-present.

Externally Funded Research (current)

Co-Investigator (Gregory P. Nordin, PI): High Density 3D Printed Microfluidics With Open Source Resins for Biomedical Applications. National Institutes of Health, $412,767, September 2017-August 2020.

Multiple Principal Investigator (one of five): Multiplexed, Non-Amplified, Nucleic Acid-Based Identification of Multidrug Resistant Pathogens Using an Integrated Optofluidic Platform, National Institutes of Health, $5,426,638, March 2015-February 2020.

Principal Investigator: Collaborative Research: Parallel, Adaptive Manufacturing of Nanoscale Electrical Interconnects Using DNA Self-Assembly, National Science Foundation, $100,000, September 2016-August 2019 (collaborative with Rebecca Schulman, Johns Hopkins University).

Principal Investigator: Integrated Microfluidic Devices for Preterm Birth Biomarker Measurement, National Institutes of Health, $1,209,566, August 2013-May 2018.

Externally Funded Research (completed)

Principal Investigator: DNA-templated Formation of Conductive Metal-semiconductor Interconnects with Sub 5-nm Linewidths, Semiconductor Research Corporation, $375,000, October 2013-December 2016.

Principal Investigator: Phase-Changing Sacrificial Layer Microfluidics for Enhanced Protein Analysis, National Institutes of Health, $1,849,988, April 2006-July 2013.

Co-investigator: NIRT: Chemically Directed Surface Alignment and Wiring of Self-Assembled Nanoelectrical Circuits, National Science Foundation, $1,064,000, July 2007-June 2011.

Principal Investigator: Microchip Separations in Undergraduate Chemistry Laboratories, Dreyfus Foundation, $40,000, February 2007-June 2010.

Co-investigator: Orthogonal Detection of MASINT Signatures Using Functionalized Microcantilever Arrays. Department of Defense/Defense Intelligence Agency, BYU subcontract of $103,508 through PNNL, March 2009-September 2009.

Co-investigator: MRI: Acquisition of chlorine based reactive ion etcher, National Science Foundation, $300,000, August 2007-July 2008.

Co-investigator: Electromobility Focusing for Separation of Proteins, National Institutes of Health, $1,232,064, February 2003-December 2007.

Principal Investigator: Patterning and Fabrication of Conductive Nanowires as Interconnects for Nanoelectronic Circuits Using Nucleic Acid Molecules as Templates, Department of Defense, Army Research Office, $239,347, September 2002-December 2005.

Principal Investigator: Biotemplated Patterning and Fabrication of Sub-10 Nanometer Diameter Nanowires for Electrical Interconnects in Nanoelectronic Circuits, The Petroleum Research Fund, American Chemical Society, $35,000, January 2002-August 2004.

BYU Funded Research (completed)

Principal Investigator: Bridging Funds During the Delayed Renewal of the NIH Grant, Phase-Changing Sacrificial Layer Microfluidics for Enhanced Protein Analysis, $20,000, April 2013-July 2013.

Principal Investigator: Flow Valve Microfluidic Devices for Rapid and Simple Point-of-usage Molecular Quantitation, $23,000, April 2012-December 2012.
Principal Investigator: Undergraduate Mentoring in DNA-Templated Nanofabrication, Environments for Mentoring Grant, $7,200, January 2005-December 2006.
Principal Investigator: Undergraduate Mentoring in Miniaturizing Chemical Analysis Systems, Environments for Mentoring Grant, $6,800, January 2004-December 2005.
Principal Investigator: Undergraduate Mentoring in Developing Methods for Direct Haplotype Determination Using Atomic Force Microscopy of Single-Stranded DNA on Surfaces, Environments for Mentoring Grant, $6,300, January 2003-December 2004.

Professional Service
Chair Editor: *Analytical and Bioanalytical Chemistry* (2017-present).
Editor: *Analytical and Bioanalytical Chemistry* (2016-present).
Treasurer: Division of Analytical Chemistry, American Chemical Society (2015-present).
Member: *Analytical and Bioanalytical Chemistry* International Advisory Board (2014-2016).
Member: *Analytical Methods* Advisory Board (2013-2017).
Member: National Research Council, Research Associateship Program Panel (March 2010-December 2016).
Member: National Institutes of Health EBIT (formerly EBT) study section (July 2009-June 2013).
Chair-Elect, Chair, Past-Chair: Central Utah Section of the American Chemical Society: 2007-2009.
Member: National Science Foundation CMMI Proposal Review Panel (December 2016).
Ad hoc member: National Institutes of Health ISD study section (June 2016).
Chair: National Institutes of Health ZRG1 BST-T (02) special emphasis panel (November 2015).
Member: National Institutes of Health ZRG1 BST-T (03) M special emphasis panel (June 2014).
Member: National Institutes of Health ZEB1 OSR-D (M2) special emphasis panel (March 2012).
Chair: National Institutes of Health ZRG1 IMST-L (90) S special emphasis panel (February 2011).
Member: National Institutes of Health ZRR1 BT-7 (01) special emphasis panel (June 2009).
Member: National Institutes of Health ZRG1 BST-G (10) special emphasis panel (April 2009).
Member: National Institutes of Health ZEB1 OSR-B (J1) special emphasis panel (November 2008).
Member: National Institutes of Health ZRR1 BT-B (01) special emphasis panel (October 2008).
Member: National Institutes of Health ZAI1 MMT-M (J1) special emphasis panel (September 2008).
Member: National Institutes of Health ZRR1 BT-B (01) special emphasis panel (June 2008).
Member: National Science Foundation Collaborative Research in Chemistry Preliminary Proposal Panel P080528 (January 2008).
Member: National Institutes of Health ZRG1 BST-W (10) special emphasis panel (July 2007).
Member: National Institutes of Health ZRR1 BT-B (02) special emphasis panel (June 2007).
Member: National Institutes of Health ZEB1 OSR-D (M2) S special emphasis panel (April 2007).
Member: National Institutes of Health ZRG1 BST-W (10) (B) special emphasis panel (March 2007).

Member: National Institutes of Health ZRG1 BST-W (12) (B) special emphasis panel (October 2006).
Ad hoc member: National Institutes of Health EBT study section (June 2006).
Member: National Institutes of Health ZCA1 SRRB-K (C3) special emphasis panel (March 2006).
Ad hoc member: National Institutes of Health EBT study section (February 2006).
Member: National Institutes of Health ZCA1 SRRB-E (01) special emphasis panel (June 2005).
Ad hoc member: National Institutes of Health ZRG BECM (01) study section (October 2004).
Reviewer (mail in) of proposals for the following organizations: National Institutes of Health, National Science Foundation, American Chemical Society-Petroleum Research Fund, Wellcome Trust, Research Corporation, Technology Foundation STW (The Netherlands), Canadian Blood Services, BBSRC (United Kingdom), Marsden Fund (New Zealand), Innovation and Technology Commission (Hong Kong), Natural Sciences and Engineering Research Council (Canada).

Reviewer for the following journals: *Science, Proc. Natl. Acad. Sci. USA, J. Am. Chem. Soc., Nat. Comm., Nat. Nanotechnol., Nat. Chem., PLOS One, Acc. Chem. Res., Angew. Chem. Int. Ed., Chem. Soc. Rev., Anal. Chem., Nano Lett., Chem. Sci., J. Phys, Chem., Chem. Mater., Langmuir, ACS Nano, Chem. Comm., Lab Chip, J. Mater. Chem., Appl. Phys. Lett., Can. J. Chem., Biomacromolecules, Anal. Bioanal. Chem., Analyst, Electrophoresis, J. Chromatogr. A, J. Sep. Sci., Phys. Chem. Chem. Phys., Nanotechnology, Appl. Spectroscopy, Astrobiology, Anal. Chim. Acta, Talanta, Analytical Sciences.*

Professional Meeting Organization
Co-Chair and Co-Organizer of the "Disease Diagnosis Enabled by Integrated Microfluidic Systems" symposium at Pittcon 2018 to be held in Orlando, FL (February 2018).
Chair and Organizer of the "Enabling Sample Preconcentration Methods for Bioanalysis" symposium at Pittcon 2016 held in Atlanta, GA (March 2016).
Chair and Organizer of the "Liquid Chromatography in Microfluidics: A Workhorse Tool is Going Small Scale" symposium at Pittcon 2014 held in Chicago, IL (March 2014).
Chair and Organizer of the "Emerging Simple and Inexpensive Microdevice Technologies for Point-of-Care Assays" symposium at Pittcon 2013 held in Philadelphia, PA (March 2013).
Co-Chair and Co-Organizer of the "Nanofluidics in Analysis and Sample Preparation" symposium at Pittcon 2012 held in Orlando, FL (March 2012).
Co-Chair and Co-Organizer of the Rich Mathies 65th Birthday Symposium held in Berkeley, CA (September 2011).
Program Chair for LabAutomation 2011 held in Palm Springs, CA (January 2011).
Co-Chair and Co-Organizer of the "Biomedical Diagnostics" sessions of the 2010 AIChE Annual Meeting held in Salt Lake City, UT (November 2010).
Chair and Organizer of the "Affinity Methods in Biochemical Separations" symposium at Pittcon 2010 held in Orlando, FL (March 2010).
Associate Program Chair for LabAutomation 2010 held in Palm Springs, CA (January 2010).
Program Committee Member for Conference 7397 (Biosensing II) of SPIE Optics+Photonics 2009 held in San Diego, CA (August 2009).
Chair and Organizer of the "Advances in Micro-to Nano-Fluidic Separations and Systems Symposium" of the 237th ACS National Meeting held in Salt Lake City, UT (March 2009).

Chair for the Micro- and Nanotechnologies Track for LabAutomation 2009 held in Palm Springs, CA (January 2009).
Program Committee Member for Conference 7035 (Biosensing) of SPIE Optics+Photonics 2008 held in San Diego, CA (August 2008).
Program Co-Chair for the combined 2008 Rocky Mountain/Northwest Regional ACS Meeting held in Park City, UT (June 2008).
Associate Chair for the Micro- and Nanotechnologies Track for LabAutomation 2008 held in Palm Springs, CA (January 2008).
Bioanalytical Section Chair of the 2007 FACSS Meeting held in Memphis, TN (October 2007).
Chair and Organizer of the "Using Electric Field Gradients to Concentrate and Separate Biomolecules" symposium at Pittcon 2007 held in Chicago, IL (March 2007).
Chair and Organizer of the "Biological Analysis Enabled by Micromachining Technologies" session of the 2004 FACSS Meeting held in Portland, OR (October 2004).
Chair and Organizer of the "Lab-on-a-Chip Systems in Bioanalytical Chemistry" session of the 2003 FACSS Meeting held in Ft. Lauderdale, FL (October 2003).
Chair and Organizer of the "Moving Lab-on-a-Chip Technology Beyond Electrophoresis" symposium at Pittcon 2003 held in Orlando, FL (March 2003).
Co-Chair and Co-Organizer of the "Advances in Lab-on-a-Chip Technology" session of the 2002 Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) Meeting held in Providence, RI (October 2002).
Chair and Organizer of the "Nanotechnology" symposium for the BioMEMS & Biomedical Nanotechnology World 2000 conference in Columbus, OH (September 2000).

Languages
Spanish: reading, writing and speaking.

Publications (120 published peer-reviewed papers)

152. Gong, H.; Woolley, A.T.; Nordin, G.P. 3D printed high density, reversible, chip-to-chip microfluidic interconnects. *Lab Chip* **18**, in press (2018).
151. Xu, A.; Harb, J.N.; Kostiainen, M.A.; Hughes, W.L.; Woolley, A.T.; Liu, H.; Gopinath, A. DNA Origami: The Bridge from Bottom to Top. *MRS Bull.* **42**, 943-950 (2017).
150. Sonker, M.; Parker, E.K.; Nielsen, A.V.; Sahore, V.; Woolley, A.T. Electrokinetically Operated Microfluidic Devices for Integrated Immunoaffinity Monolith Extraction and Electrophoretic Separation of Preterm Birth Biomarkers. *Analyst* **143**, 224-231 (2018).
149. Gong, H.; Woolley, A.T.; Nordin, G.P. High Density, Reversible 3D Printed Microfluidic Interconnects. In *Micro Total Analysis Systems 2017*, Lee, A. and DeVoe, D, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2017; pp 1559-1560.
148. Beauchamp, M.J.; Gong, H.; Nordin, G.P.; Woolley, A.T. Microchip Electrophoresis of Preterm Birth Biomarkers in 3D Printed Devices. In *Micro Total Analysis Systems 2017*, Lee, A. and DeVoe, D, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2017; pp 1338-1339.
147. Nielsen, A.V.; Nielsen, J.B.; Woolley, A.T. Separation of a Panel of Preterm Birth Biomarkers using Microchip Electrophoresis. In *Micro Total Analysis Systems 2017*, Lee, A. and DeVoe, D, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2017; pp 1334-1335.

146. Nordin, G.P.; Gong, H.; Woolley, A.T. Miniaturizing 3D Printed Microfluidics. In *Micro Total Analysis Systems 2017*, Lee, A. and DeVoe, D, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2017; pp 27-30.
145. Woolley, A.T. Editorial: The Only Constant Is Change. *Anal. Bioanal. Chem.* **409**, 6053 (2017).
144. Uprety, B.; Jensen, J.K.; Aryal, B.; Davis, R.C.; Woolley, A.T.; Harb, J.N. Directional Growth of DNA-functionalized Nanorods to Enable Continuous, Site-specific Metallization of DNA Origami Templates. *Langmuir* **33**, 10143-10152 (2017).
143. Sahore, V.; Sonker, M.; Nielsen, A.V.; Knob, R.; Kumar, S.; Woolley, A.T. Automated Microfluidic Devices Integrating Solid-Phase Extraction, Fluorescent Labeling and Microchip Electrophoresis for Preterm Birth Biomarker Analysis. *Anal. Bioanal. Chem.* **410**, 933-941 (2018).
142. Sonker, M.; Sahore, V.; Woolley, A.T. Recent Advances in Microfluidic Sample Preparation and Separation Techniques for Molecular Biomarker Analysis: A Critical Review. *Anal. Chim. Acta* **986**, 1-11 (2017).
141. Gong, H.; Bickham, B.P.; Woolley, A.T.; Nordin, G.P. Custom 3D Printer and Resin for 18 μm × 20 μm Microfluidic Flow Channels. *Lab Chip* **17**, 2899-2909 (2017).
140. Knob, R.; Nelson, D.B.; Robison, R.A.; Woolley, A.T. Sequence-Specific DNA Solid-Phase Extraction in an On-Chip Monolith: Towards Detection of Antibiotic Resistance Genes. *J. Chromatogr. A.* **1523**, 309-315 (2017).
139. Beauchamp, M.J.; Nordin, G.P.; Woolley, A.T. Moving From Millifluidic to Truly Microfluidic Sub 100 μm Cross-Section 3D Printed Devices. *Anal. Bioanal. Chem.* **409**, 4311-4319 (2017).
138. Sonker, M.; Knob, R.; Sahore, V.; Woolley, A.T. Integrated Electrokinetically Driven Microfluidic Devices with pH-Mediated Solid-Phase Extraction Coupled to Microchip Electrophoresis for Preterm Birth Biomarkers. *Electrophoresis* **38**, 1743-1754 (2017).
137. Uprety, B.; Westover, T.; Stoddard, M.; Brinkerhoff, K.; Jensen, J.; Davis, R.; Woolley, A.T.; Harb, J. Anisotropic Electroless Deposition on DNA Origami Templates to Form Small-Diameter Conductive Nanowires. *Langmuir* **33**, 726-735 (2017).
136. Sonker, M.; Yang, R.; Sahore, V.; Kumar, S.; Woolley, A.T. On-Chip Fluorescent Labeling using Reversed-phase Monoliths and Microchip Electrophoretic Separations of Selected Preterm Birth Biomarkers. *Anal. Meth.* **8**, 7739-7746 (2016).
135. Gong, H.; Woolley, A.T.; Nordin, G.P. High Density 3D Printed Microfluidic Valves, Pumps, and Multiplexers. *Lab Chip* **16**, 2450-2458 (2016).
134. Knob, R.; Sahore, V.; Sonker, M.; Woolley, A.T. Advances in Monoliths and Related Porous Materials for Microfluidics. *Biomicrofluidics* **10**, 032901 (2016).
133. Kumar, S.; Sahore, V.; Rogers, C.I.; Woolley, A.T. Development of an Integrated Microfluidic Solid-phase Extraction and Electrophoresis Device. *Analyst* **141**, 1660-1668 (2016).
132. Gong, H.; Beauchamp, M.; Perry, S.; Woolley, A.T.; Nordin, G.P. Optical Approach to Resin Formulation for 3D Printed Microfluidics. *RSC Advances* **5**, 106621-106632 (2015).
131. Sahore, V.; Kumar, S.; Rogers, C.I.; Sonker, M.; Jensen, J.K.; Woolley, A.T. Pressure-Actuated Microfluidic Devices for Electrophoretic Separation of Pre-Term Birth Biomarkers. *Anal. Bioanal. Chem.* **408**, 599-607 (2016).

130. Woolley, A.T. Spotlight on Emerging MicroRNA Analysis Methods. *Anal. Bioanal. Chem.* **407**, 6579-6581 (2015).
129. Pagaduan, J.V.; Sahore, V.; Woolley, A.T. Applications of Microfluidics and Microchip Electrophoresis for Potential Clinical Biomarker Analysis. *Anal. Bioanal. Chem.* **407**, 6911-6922 (2015).
128. Rogers, C.I.; Quaderi, K; Woolley, A.T.; Nordin, G.P. 3D Printed Microfluidic Devices with Integrated Valves. *Biomicrofluidics* **9**, 016501 (2015).
127. Gates, E.P.; Jensen, J.K.; Harb, J.N.; Woolley, A.T. Optimizing Gold Nanoparticle Seeding Density on DNA Origami. *RSC Advances* **5**, 8134-8141 (2015).
126. Pagaduan, J.P.; Ramsden, M.; O'Neill, K.; Woolley, A.T. Microchip Immunoaffinity Electrophoresis of Antibody-Thymidine Kinase 1 Complex. *Electrophoresis* **36**, 813-817 (2015).
125. Kumar, S.; Stout, J.M.; Hawkins, A.R.; Woolley, A.T. Ionic Strength Effects on Protein Trapping in Thin-Film Fabricated Nanochannels. In *Micro Total Analysis Systems 2014*, Jacobson, S.C and Kutter, J.P, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2014; pp 1344-1346.
124. Chatterjee, D.; Yeakley, F.; Woolley, A.T. Flow-Valve Microfluidic Devices for Simple, Detectorless and Label-Free Quantitation of Nucleic Acids. In *Micro Total Analysis Systems 2014*, Jacobson, S.C and Kutter, J.P, Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2014; pp 1021-1023.
123. Chatterjee, D.; Mansfield, D.S.; Woolley, A.T. Microfluidic Devices for Label-Free and Non-Instrumented Quantitation of Unamplified Nucleic Acids by Flow Distance Measurement. *Anal. Meth.* **6**, 8173-8179 (2014).
122. Yang, R.; Pagaduan, J.V.; Yu, M.; Woolley, A.T. On Chip Preconcentration and Fluorescence Labeling of Model Proteins by Use of Monolithic Columns: Device Fabrication, Optimization, and Automation. *Anal. Bioanal. Chem.* **407**, 737-747 (2015).
121. Gates, E.P.; Dearden, A.M.; Woolley, A.T. DNA-templated Lithography and Nanofabrication for the Fabrication of Nanoscale Electronic Circuitry. *Crit. Rev. Anal. Chem.* **44**, 354-370 (2014).
120. Uprety, B.; Gates, E.P.; Geng, Y.; Woolley, A.T.; Harb, J.N. Site-specific Metallization of Multiple Metals on a Single DNA Origami Template. *Langmuir* **30**, 1134-1141 (2014).
119. Woolley, A.T.; Kumar, S.; Xuan, J.; Lee, M.L.; Tolley, H.D.; Hawkins, A.R. Size-based Protein Fractionation in Nanofluidic Channel Arrays. In *Micro Total Analysis Systems 2013*, Zengerle, R. Ed. Chemical and Biological Microsystems Society: San Diego, CA, 2013; pp 110-112.
118. Rogers, C.I.; Oxborrow, J.B.; Anderson, R.R.; Tsai, L.-F.; Nordin, G.P.; Woolley, A.T. Microfluidic Valves Made From Polymerized Polyethylene Glycol Diacrylate. *Sens. Actuators B* **191**, 438-444 (2014).
117. Kumar, S.; Xuan, J.; Lee, M.L.; Tolley, H.D.; Hawkins, A.R.; Woolley, A.T. Thin-Film Microfabricated Nanofluidic Arrays for Size-Selective Protein Fractionation. *Lab Chip* **13**, 4591-4598 (2013).
116. Liu, J.; Uprety, B.; Gyawali, S.; Woolley, A.T.; Myung, N.V.; Harb, J.N. Fabrication of DNA-Templated Te and Bi_2Te_3 Nanowires by Galvanic Displacement. *Langmuir* **29** 11176-11184 (2013).

115. Gao, C.; Sun, X.; Woolley, A.T. Fluorescent Measurement of Affinity Binding Between Thrombin and its Aptamers using On-chip Affinity Monoliths. *J. Chromatogr. A* **1291**, 92-96 (2013).
114. Geng, Y.; Pearson, A.C.; Gates, E.P.; Uprety, B.; Davis, R.C.; Harb, J.N.; Woolley, A.T. Electrically Conductive Gold and Copper Metallized DNA Origami Nanostructures. *Langmuir* **29**, 3482-3490 (2013).
113. Nge, P.N.; Rogers, C.I.; Woolley, A.T. Advances in Microfluidic Materials, Functions, Integration and Applications. *Chem. Rev.* **113**, 2550-2583 (2013).
112. Ness, S.J.; Anderson, R.R.; Hu, W.; Richards, D.C.; Oxborrow, J.; Gustafson, T.; Tsai, B.; Kim, S.; Mazzeo, B.; Woolley, A.; Nordin, G.P. Weak Adsorption-Induced Surface Stress for Streptavidin Binding to Biotin Tethered to Silicon Microcantilever Arrays. *IEEE Sensors* **13**, 959-968 (2013).
111. Nge, P.N.; Pagaduan, J.V.; Yu, M.; Woolley, A.T. Microfluidic Chips with Reversed-Phase Monoliths for Solid Phase Extraction and On-Chip Labeling. *J. Chromatogr. A* **1261**, 129-135 (2012).
110. Chatterjee, D.; Mansfield, D.S.; Anderson, N.G.; Subedi, S.; Woolley, A.T. "Flow Valve" Microfluidic Devices for Simple, Detectorless and Label-Free Analyte Quantitation. *Anal. Chem.* **84**, 7057-7063 (2012).
109. Pearson, A.C.; Liu, J.; Pound, E.; Uprety, B.; Woolley, A.T.; Davis, R.C.; Harb, J.N. DNA Origami Metallized Site Specifically to Form Electrically Conductive Nanowires. *J. Phys. Chem. B* **116**, 10551-10560 (2012).
108. Ness, S.J.; Kim, S.; Woolley, A.T.; Nordin, G.P. Single-Sided Inkjet Functionalization of Silicon Photonic Microcantilevers. *Sens. Actuat. B* **161**, 80-87 (2012).
107. Xuan, J.; Hamblin, M.N.; Stout, J.M.; Tolley, H.D.; Maynes, D.R.; Woolley, A.T.; Hawkins, A.R.; Lee, M.L. Surfactant Addition and Alternating Current Electrophoretic Oscillation During Size Fractionation of Nanoparticles in Channels with Two or Three Different Height Segments. *J. Chromatogr. A* **1218**, 9102-9110 (2011).
106. Chatterjee, D.; Subedi, S.; Mansfield, D.S.; Woolley, A.T. Flow-valve Diagnostics for Simple, Point-of-care Analyte Quantitation. In *Micro Total Analysis Systems 2011*, Landers, J.P.; Herr, A.; Juncker, D.; Pamme, N.; Bienvenue, J. Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2011; pp 488-490.
105. Rogers, C.I.; Pagaduan, J.V.; Nordin, G.P.; Woolley, A.T. Optimization and Evaluation of Polyethylene Glycol Diacrylate as a Nonadsorptive Polymeric Material for Microfluidics. In *Micro Total Analysis Systems 2011*, Landers, J.P.; Herr, A.; Juncker, D.; Pamme, N.; Bienvenue, J. Eds. Chemical and Biological Microsystems Society: San Diego, CA, 2011; pp 452-454.
104. Nge. P.N.; Pagaduan, J.V.; Yang, W.; Woolley, A.T. Integrated Affinity and Electrophoresis Systems for Multiplexed Biomarker Analysis. *Meth. Mol. Biol.* **919**, 189-20 (2013).
103. Rogers, C.I.; Nordin, G.P.; Woolley, A.T. Optimization of a Single-Monomer Formulation of Polyethylene Glycol Diacrylate as a Nonadsorptive Polymeric Material for Microfluidics. *Anal. Chem.* **83**, 6418-6425 (2011).
102. Pagaduan, J.V.; Yang, W.; Woolley, A.T. Optimization of Monolithic Columns for Microfluidic Devices. *Proceedings of SPIE* **8031**, 80311V-1 – 80311V-7 (2011).

101. Hamblin, M.N.; Hawkins, A.R.; Murray, D.; Maynes, D.; Lee, M.L.; Woolley, A.T.; Tolley, H.D. Capillary Flow in Sacrificially-Etched Nanochannels. *Biomicrofluidics* **5**, 021103-1 – 021103-6 (2011).
100. Geng, Y.; Liu, J.; Pound, E.; Gyawali, S.; Harb, J.N.; Woolley, A.T. Rapid Metallization of Lambda DNA and DNA Origami using a Pd Seeding Method. *J. Mater. Chem.* **21**, 12126-12131 (2011).
99. Anderson, R.R.; Hu, W.; Noh, J.W.; Dahlquist, W.C.; Ness, S.J.; Gustafson, T.M.; Richards, D.C.; Kim, S.; Mazzeo, B.A.; Woolley, A.T.; Nordin, G.P. Transient Deflection Response in Microcantilever Array Integrated with Polydimethylsiloxane (PDMS) Microfluidics. *Lab Chip* **11**, 2088-2096 (2011).
98. Pearson, A.C.; Pound, E.; Woolley, A.T.; Linford, M.R.; Harb, J.N.; Davis, R.C. Chemical Alignment of DNA Origami to Block Copolymer Patterned Arrays of 5 nm Gold Nanoparticles. *Nano Lett.* **11**, 1981-1987 (2011).
97. Yu, M.; Wang, Q.; Patterson, J.E.; Woolley, A.T. Multilayer Polymer Microchip Capillary Array Electrophoresis Devices with Integrated on-chip Labeling for High-Throughput Protein Analysis. *Anal. Chem.* **83**, 3541-3547 (2011).
96. Nge, P.N.; Yang, W.; Pagaduan, J.V.; Woolley, A.T. Ion-permeable Membrane for On-chip Preconcentration and Separation of Cancer Marker Proteins. *Electrophoresis* **32**, 1133-1140 (2011).
95. Liu, J.; Geng, Y.; Pound, E.; Gyawali, S.; Ashton, J.R.; Hickey, J.; Woolley, A.T.; Harb, J.N. Metallization of Branched DNA Origami for Nanoelectronic Circuit Fabrication. *ACS Nano* **5**, 2240-2247 (2011).
94. Woolley, A.T.; Larsen, M.G.; Nge, P.N.; Yang, W.; Eves, D.J. A Microchip Capillary Electrophoresis Experiment for the Instrumental Analysis Laboratory. *J. Anal. Sci. Digital Lib.* JASDL entry 10061 (2011). http://www.asdlib.org/onlineArticles/elabware/Wooley/uCE lab overview JASDL.htm
93. DeMello, A.J.; Woolley, A.T. Nanotechnology. *Curr. Op. Chem. Biol.* **14**, 545-547 (2010).
92. Yang, W.; Yu, M.; Sun, X.; Woolley, A.T. Microdevices Integrating Affinity Columns and Capillary Electrophoresis for Multi-biomarker Analysis in Human Serum. *Lab Chip* **10**, 2527-2533 (2010).
91. Sheng, T.; Teng, E.; Woolley, A.T.; Mazzeo, B.; Schultz, S.M.; Hawkins, A.R. Contactless Conductivity Detection of Small Ions in Surface Micro-Machined CE Chip. *Electrophoresis* **31**, 2596-2601 (2010).
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Allison R. Nelson, Master of Science Thesis, Characterization of a System for Surface DNA Alignment and Atomic Force Microscopy Studies of Genetic Screening, 2003.

Scientific Presentations

164. Woolley, A.T. Nanometer-Precision Assembly of Materials Using DNA Origami. Nanoscience Center Seminar, University of Jyväskylä, Jyväskylä, Finland, December 18, 2017.
163. Woolley, A.T. Determination of preterm birth biomarkers in 3-D printed integrated microfluidic devices. Presented at LACE 2017, The 23rd Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Mexico City, Mexico, December 2017 (oral presentation, OP-A-16).
162. Woolley, A.T. Microfluidic Biomarker Analysis Systems that Integrate Sample Preparation with Separation. Presented at EuroAnalysis 2017, Stockholm, Sweden, August 2017 (keynote lecture).
161. Woolley, A.T. Assembly of Materials at the Nanoscale Using DNA Origami. Presented at the XXVI International Materials Research Conference (IMRC 2017), Cancun, Mexico, August 2017; paper SC.4-O018 (invited talk).
160. Woolley, A.T.; Uprety, B.; Westover, T.; Jensen, J.K.; Humphries, N.T.; Davis, R.C.; Harb, J.N. Nanoscale Electronic Structures Formed from DNA Templates. Presented at the CMOS Emerging Technologies Research 2017 Conference, Warsaw, Poland, May 2017 (invited talk).
159. Woolley, A.T.; Sahore, V.; Sonker, M.; Nielsen, A.V.; Beauchamp, M.J.; Nielsen, J.B.; Parker, E.K. Integrated Microfluidic Systems for the Analysis of a Panel of Preterm Birth Biomarkers. Presented at the 41st International Symposium on Capillary Chromatography, Fort Worth, TX, May 2017; lecture 2 (keynote lecture).
158. Woolley, A.T.; Sahore, V.; Nielsen, A.V.; Sonker, M.; Nielsen, J.B. Integrated Microfluidic Systems for On-Chip Extraction, Fluorescent Labeling and Electrophoretic Analysis of Pre-Term Birth Biomarkers. Presented at LACE 2016, The 22nd Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Santiago, Chile, December 2016 (keynote lecture, KN-A-04).
157. Woolley, A.T.; Sonker, M.; Knob, R.; Sahore, V. Electrically Driven, pH-Mediated Solid-Phase Extraction and Preconcentration on Monoliths in Microfluidic Devices. Presented at SciX 2016, Minneapolis, MN, September 2016; paper 933 (contributed talk).
156. Woolley, A.T. Integrated Microfluidic Systems for the Analysis of Biomarkers. Chemistry Department Seminar, University of Pittsburgh, Pittsburgh, PA, September 8, 2016.
155. Woolley, A.T.; Sonker, M.; Sahore, V.; Knob, R.; Parker, E.K. Electrically Driven Analyte Preconcentration on Monoliths in Microfluidic Devices. Presented at the 252nd ACS National Meeting, Division of Analytical Chemistry, Philadelphia, PA, August 2016; paper 314 (contributed talk).

154. Woolley, A.; Sahore, V.; Kumar, S.; Nielsen, A.; Sonker, M.; Parker, E. Integrated Microdevices Having On-chip Pumps and Valves for Solid-Phase Extraction Coupled with Microchip Electrophoresis. Presented at HPLC 2016, the 44th International Symposium on High Performance Liquid Phase Separations and Related Techniques, San Francisco, CA, June 2016; paper L-105 (invited lecture).
153. Woolley, A.T.; Sahore, V.; Kumar, S.; Nielsen, A.V.; Sonker, M.; Parker, E.K.; Nielsen, J.B. Solid-phase Extraction, Fluorescence Labeling and Electrophoretic Separation of Pre-term Birth Biomarkers Using an Integrated Microfluidic Device. Presented at the 40th International Symposium on Capillary Chromatography, Riva del Garda, Italy, June 2016; paper LE.48 (invited talk).
152. Woolley, A.T.; Lee, K.V.; Jensen, J.K.; Rowe, J.A.; Uprety, B.; Westover, T.; Davis, R.C.; Harb, J.N. DNA-templated Assembly of Conductive Nanostructures. Presented at DNA Nanotechnology 2016, Jena, Germany, May 2016 (invited talk).
151. Woolley, A.T.; Nielsen, A.V.; Sahore, V.; Knob, R. Capillary and Microchip Electrophoresis of Pre-term Birth Biomarkers. Presented at the 251st ACS National Meeting, Division of Analytical Chemistry, San Diego, CA, March 2016; paper 28 (invited talk).
150. Woolley, A.T.; Chatterjee, D.; Sahore, V. Simple, Microfluidic Flow Distance-Based Determination of Biomolecule Concentrations. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 550-3 (invited talk).
149. Woolley, A.T.; Kumar, S.; Sahore, V.; Knob, R.; Sonker, M. Microfluidic Integration of Solid-Phase Extraction with Fluorescence Labeling for Microfluidic Analysis. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 50-4 (invited talk).
148. Woolley, A.T. Integrated Microfabricated Systems for Biomolecular Analysis. Chemistry Department Seminar, University of Utah, Salt Lake City, UT, February 8, 2016.
147. Woolley, A.T. Sequence-specific DNA extraction for sepsis detection and strain typing. Presented at The Society of Western Analytical Professors (SWAP) 2016, Riverside, CA, January, 2016 (contributed talk).
146. Woolley, A.T. Integrated Microfluidic Devices for Biomolecular Analysis. Chemistry and Biochemistry Department Seminar, Brigham Young University-Idaho, Rexburg, ID, January 21, 2016.
145. Woolley, A.T.; Chatterjee, D.; Sahore, V. Simple, Flow-based Quantitation of Nucleic Acid Biomarkers in Microfluidic Devices. Presented at the 2015 International Chemical Congress of the Pacific Basin Societies (Pacifichem 2015), Honolulu, HI, December 2015; paper 557, area 1–Analytical (invited talk).
144. Woolley, A.T.; Pagaduan, J.V.; O'Neill, K. Microchip Immunoaffinity Analysis of a Serum Biomarker for Cancer. Presented at Pacifichem 2015, Honolulu, HI, December 2015; paper 76, area 1–Analytical (invited talk).
143. Woolley, A.T.; Kumar, S.; Sonker, M.; Sahore, V.; Knob, R.; Nielsen, A.V. Microfluidic Systems Integrating on-chip Sample Preparation with Capillary Electrophoresis. Presented at Pacifichem 2015, Honolulu, HI, December 2015; paper 47, area 1–Analytical (invited talk).
142. Woolley, A.T.; Sahore, V.; Kumar, S.; Knob, R.; Sonker, M.; Nielsen, A.V. Microfluidic Devices for Improved Electrophoretic Analysis. Presented at LACE 2015, The 21st Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and

Industrial Applications of Capillary Electrophoresis and Microchip Technology, Cartagena, Columbia, December 2015 (keynote lecture, KN-A-07).

141. Woolley, A.T.; Remcho, V.T. Fundamentals and Applications of Microchip Technology. Presented at LACE 2015, The 21st Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Cartagena, Columbia, December 2015 (pre-symposium course).
140. Woolley, A.T. Integrated Microfluidic Devices for Biomarker Analysis. Chemistry and Biochemistry Department Seminar, San Diego State University, San Diego, CA, November 20, 2015.
139. Woolley, A.T. Electrokinetically Driven Microfluidic Analyzers. Presented at 2015 AIChE Annual Meeting, Salt Lake City, UT, November 2015; paper 566C (invited talk).
138. Woolley, A.T. Microchip Electrophoresis: A Mid-Career Method? Presented at SciX 2015, Providence, RI, October 2015 (award address).
137. Woolley, A.T.; Knob, R.; Kumar, S.; Sahore, V.; Nielsen, A.V.; Sonker, M. Electrokinetically Driven Bioanalysis in Microfluidic Systems. Presented at CECE 2015, the 12th International Interdisciplinary Meeting on Bioanalysis, Brno, Czech Republic, September 2015 (invited talk).
136. Woolley, A.T.; Kumar, S.; Sonker, M.; Sahore, V.; Knob, R. Microfluidic devices integrating solid-phase extraction, fluorescent labeling and electrophoresis. Presented at the 250th ACS National Meeting, Division of Analytical Chemistry, Boston, MA, August 2015; paper 206 (contributed talk).
135. Woolley, A.T. Microfluidic Systems for Biomarker Analysis. Chemistry Department Seminar, University of Toronto, Toronto, ON, Canada, July 22, 2015.
134. Woolley, A.T.; Uprety, B.; Gates, E.P.; Lee, K.V.; Jensen, J.K.; Noyce, S.; Prestwich, N.B.; Davis, R.C.; Harb, J.N. Exploiting the Interface Between Biology and Electronics. Presented at the CMOS Emerging Technologies Research 2015 Conference, Vancouver, BC, Canada, May 2015 (invited talk).
133. Woolley, A.T. Microfluidic Devices for Biomolecular Analysis. Department of Chemistry Graduate Research Seminar, University of Texas at San Antonio, San Antonio, TX, March 27, 2015.
132. Woolley, A.T. Simple Flow Distance Method for Sensitive Quantification of Nucleic Acids in Biological Fluids, Seminar at ARUP Laboratories, Salt Lake City, UT, February 23, 2015.
131. Woolley, A.T. DNA Assembly of Metal-semiconductor Interconnects. Presented at the Forum on Nanoelectronic Manufacturing: From Materials to Systems, Tata Institute of Fundamental Research, Mumbai, India, October 2014 (invited talk).
130. Woolley, A.T. Capillary and Microchip Electrophoresis Separations of Disease Biomarkers. Presented at the 3rd International Workshop on Capillary Electrophoresis and Microchip Technology and 1st Meeting of Liquid Chromatography. Faculty of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, Brazil, October 2014 (invited talk).
129. Woolley, A.T. Microfluidic Multidimensional Separations for Biomarker Analysis. Presented at the 3rd International Workshop on Capillary Electrophoresis and Microchip Technology and 1st Meeting of Liquid Chromatography. Faculty of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, Brazil, October 2014 (invited talk).

128. Woolley, A.T.; Yang, R.; Kumar, S.; Sonker, M.; Pagaduan, J.V.; Nge, P.N.; Yang, W. Integrated Microfluidic Devices That Combine Electrochromatographic Extraction and Electrophoretic Separation. Presented at the 38th International Symposium on Capillary Chromatography, Riva del Garda, Italy, May 2014; paper LE.44 (invited talk).
127. Woolley, A.T.; Gates, E.P.; Dearden, A.M.; Jensen, J.K.; Lee, K.W.; McDowell, M.P.; Uprety, B.; Harb, J.N. Site-specific metallization of DNA origami nanostructures. Presented at the DNA-Based Functional Materials International Symposium, Jena, Germany, May 2014 (contributed talk).
126. Woolley, A.; Yang, R.; Sonker, M.; Pagaduan, J.; Kumar, S.; Nge, P.; Yang, W. Microfabricated Systems Integrating Electrochromatographic Extraction and Electrophoretic Separation for Biomarker Analysis. Presented at HPLC 2014, the 41st International Symposium on High Performance Liquid Phase Separations and Related Techniques, New Orleans, LA, May 2014; paper L-137 (invited lecture).
125. Woolley, A.T.; Nge, P.N.; Pagaduan, J.; Yang, R.; Sonker, M. Integrated Solid-Phase Extraction, Fluorescence Labeling, and Electrophoretic Separation in Microfluidic Systems. Presented at Pittcon 2014, Chicago, IL, March 2014, paper 970-3 (invited talk).
124. Woolley, A.T. Simple, Analyte-Specific Quantitation through Visual Inspection of Flow Distances in Microdevices. Presented at The Society of Western Analytical Professors (SWAP) 2014, Tempe, AZ, January, 2014 (contributed talk).
123. Woolley, A.T.; Nge, P.N.; Pagaduan, J.V.; Yang, R.; Sonker, M. Microfluidic Devices Integrating Solid-Phase Extraction, Fluorescence Labeling, and Microchip Electrophoresis Separation. Presented at LACE 2013, the 19th Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Lima, Peru, December 2013; paper OP-A-17 (contributed talk).
122. Woolley, A.T.; Kumar, S.; Xuan, J.; Lee, M.L.; Tolley, H.D.; Hawkins, A.R. Size-based Protein Fractionation in Nanofluidic Channel Arrays. Presented at Presented at uTAS2013, Freiburg, Germany, October 2013; paper M.018a (poster).
121. Woolley, A.T. Microfluidic Devices for Chemical Analysis: From Simple Point of Care Quantitation to Integrated Multiple Function Systems. Department of Chemistry Seminar, Saint Louis University, St. Louis, MO, October 4, 2013.
120. Woolley, A.T.; Kumar, S.; Xuan, J.; Hawkins, A.R.; Lee, M.L. Size-Selective Protein Fractionation in Arrays of Nanofluidic Channels. Presented at the 37th International Symposium on Capillary Chromatography, Palm Springs, CA, May 2013; paper L-02-12 (invited talk).
119. Woolley, A.T. Selective Metallization of DNA Origami Towards Self-Assembled Nanoelectronic Systems. Department of Chemistry and Biochemistry Seminar, Utah State University, Logan, UT, March 27, 2013.
118. Woolley, A.T.; Yang, W.; Nge, P.N. A Microchip Capillary Electrophoresis Experiment for the Instrumental Analysis Laboratory. Presented at Pittcon 2013, Philadelphia, PA, March 2013, paper 1920-1 (invited talk).
117. Woolley, A.T.; Chatterjee, D.; Mansfield, D.S.; Subedi, S. Simple, Detectorless and Label-Free Analyte Quantitation Using "Flow Valve" Microfluidic Devices. Presented at Pittcon 2013, Philadelphia, PA, March 2013, paper 40-3 (invited talk).
116. Woolley, A.T.; Nge, P.N.; Yu, M.; Pagaduan, J.V.; Yupanqui, K.; Yang, R. Microfluidic Electrophoresis Systems with Integrated Solid-Phase Extraction, Labeling and

Separation. Presented at LACE 2012, the 18th Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Buenos Aires, Argentina, December 2012; paper OP-A-31 (invited talk).

115. Woolley, A.T. Microfluidic Systems in Bioanalytical Chemistry. CARAT (Center for Applied Research and Advanced Technology) Seminar, Southern Utah University, Cedar City, UT, November 15, 2012.
114. Woolley, A.T. Microfluidic Systems for Biomolecular Analysis and Quantitation. Analytical Chemistry Seminar, University of Washington, Seattle, WA, October 22, 2012.
113. Woolley, A.T.; Geng, Y.; Pound, E.; Lydiksen, M.; Pearson, A.; Liu, J.; Uprety, B.; Davis, R.; Harb, J.N. Selective Metallization of Scaffolded DNA Origami to Form Self-Assembled Nanoelectronic Systems. Presented at PRiME 2012, the 2012 Pacific Rim Meeting on Electrochemical and Solid-State Science, Honolulu, HI, October 2012; paper 3251 (invited talk).
112. Woolley, A.T. Leveraging Molecular Interactions and Self-Assembly for Biochemical Analysis and Nanofabrication. Reed M. Izatt and James J. Christensen Faculty Excellence in Research Award Address, Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, September 13, 2012.
111. Woolley, A.T. Scaffolded DNA Origami Metallized Site-Specifically to Construct Self-Assembled Conductive Nanosystems. Presented at UKC 2012, The US – Korea Conference on Science, Technology and Entrepreneurship, Los Angeles, CA, August 2012; Nanoscale Science and Engineering and Advanced Materials: Bio-Nanotechnology Session (invited talk).
110. Woolley, A.T.; Nge, P.N.; Yu, M.; Pagaduan, J.V.; Yupanqui, K. Microfluidic Systems for Biomarker Analysis Integrating Solid-Phase Extraction, Labeling and Separation. Presented at HPLC 2012, the 38th International Symposium on High Performance Liquid Phase Separations and Related Techniques, Anaheim, CA, June 2012; paper L-01-06 (invited talk).
109. Woolley, A.T.; Yu, M.; Nge, P.N.; Chatterjee, D.; Pagaduan, J.V.; Mansfield, D.S. Novel Microfluidic Systems for Rapid Biomarker Quantitation. Presented at the 36th International Symposium on Capillary Chromatography, Riva del Garda, Italy, May 2012; paper LE.45 (invited talk).
108. Woolley, A.T.; Chatterjee, D.; Mansfield, D.S.; Anderson, N.; Subedi, S. Flow Valve Microfluidic Systems for Detectorless and Label-free Analyte Quantitation. Presented at the 243rd ACS National Meeting, Division of Industrial and Engineering Chemistry, San Diego, CA, March 2012; paper 150 (invited talk).
107. Woolley, A.T.; Yu, M.; Nge, P.N.; Pagaduan, J. Integrated Microfluidic Systems with On-Chip Fluorescence Labeling. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 1940-3 (contributed talk).
106. Woolley, A.T.; Kumar, S.; Xuan, J.; Lee, M.L.; Tolley, H.D.; Maynes, D.R.; Hawkins, A.R. Planar Thin-film Nanofluidic Devices for Sample Fractionation. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 940-3 (invited talk).
105. Woolley, A.T. Miniaturization in Biotemplated Nanofabrication and Integrated Microfluidic Systems. Presented at NanoUtah 2011, Salt Lake City, UT, October 2011 (invited talk).

104. Chatterjee, D.; Subedi, S.; Mansfield, D.S.; Woolley, A.T. Flow-valve Diagnostics for Simple, Point-of-care Analyte Quantitation. Presented at uTAS2011, Seattle, WA, October 2011; paper M6G (poster).
103. Woolley, A.T. Integrated Lab-on-a-Chip Affinity and Electrophoresis Systems for Rapid Biomarker Quantitation. Presented at Lab-on-a-Chip World Congress, South San Francisco, CA, September 2011 (invited talk).
102. Woolley, A.T. Novel Microfluidic Analysis Systems. Presented at Rich Mathies 65th Birthday Symposium, Berkeley, CA, September 2011 (poster).
101. Woolley, A.T. Planar Thin-film Devices for Fractionation of Nanoscale Objects. Presented at Professor Milton L. Lee's 65th Birthday Symposium and Reunion, Provo, UT, September 2011; paper SOP-3 (invited talk).
100. Woolley, A.T.; Geng, Y.; Pound, E.; Liu, J.; Halbert, M.; Gyawali, S.; Uprety, B.; Pearson, A.C.; Davis, R.C.; Harb, J.N. Designed Metal Nanostructures and Assemblies Formed from Scaffolded DNA Origami. Presented at the 2011 Nanoelectronic Devices for Defense & Security (NANO-DDS) Conference, Brooklyn, NY, August 2011; paper 188 (contributed talk).
99. Woolley, A.T.; Nge, P.N.; Yu, M.; Pagaduan, J.V.; Yang, W. Integrated Affinity Microfluidic Systems for Enhanced Biomarker Quantitation. Presented at the 35th International Symposium on Capillary Chromatography, San Diego, CA, May 2011; paper L-04-18 (invited talk).
98. Woolley, A.T.; Rogers, C.I.; Nordin, G.P. Optimization of a Poly(ethylene glycol)-Based Material for Microfluidics Applications. The 2nd Sino-USA Symposium on Separation Sciences, San Diego, CA, April 2011 (invited talk).
97. Nge, P.N.; Yu, M.; Yang, W.; Xuan, J.; Hamblin, M.N.; Hawkins, A.R.; Lee, M.L.; Woolley, A.T. Microfluidic and nanofluidic systems for the detection and quantification of biomolecules. SPIE 2011 Defense, Security and Sensing Conference, Orlando, FL, April 2011; paper 8031-66 (invited talk).
96. Woolley, A.T. Miniaturized Tools for Early Stage Cancer Diagnosis. Central Utah Science and Engineering Fair, Teacher and Parent Workshop, Brigham Young University, Provo, UT, March 24, 2011.
95. Woolley, A.T. Miniaturization in Chemistry: Integrated Microfluidic Analysis Systems and Biotemplated Nanofabrication. Chemistry Department Seminar, University of Alberta, Edmonton, AB, Canada, February 18, 2011.
94. Woolley, A.T. Miniaturization in Chemistry: Integrated Microfluidic Analysis Systems and Biotemplated Nanofabrication. Chemistry Department Seminar, University of Calgary, Calgary, AB, Canada, February 17, 2011.
93. Woolley, A.T. Optimizing Non-Adsorptive Microfluidic Materials. Society of Western Analytical Professors (SWAP) 2011, Riverside, CA, January, 2011 (contributed talk).
92. Woolley, A.T.; Yang, W.; Nge, P.N.; Yu, M. Integrated Microfluidic Devices for Multiplexed Analysis and Quantitation of Proteins in Complex Mixtures. Presented at the 2010 International Chemical Congress of the Pacific Basin Societies (Pacifichem 2010), Honolulu, HI, December 2010; paper 54, area 1–Analytical (contributed talk).
91. Woolley, A.T. Miniaturization: Miniaturization Research in Chemistry and Biochemistry: Integrated Microfluidic Analysis Systems and Biotemplated Nanofabrication. Chemistry Department Colloquium, Michigan State University, East Lansing, MI, November 18, 2010.

90. Woolley, A.T. Miniaturization: Integrated Microfluidic Analysis Systems and Biotemplated Nanofabrication. Chemistry Department Seminar, University of California, Riverside, CA, October 21, 2010.
89. Woolley, A.T.; Yang, W.; Nge, P.; Yu, M. Biomarker Quantitation through Affinity Extraction Coupled with Capillary Electrophoresis in a Microfabricated Device. Presented at the 17th International Symposium on Electro- and Liquid Phase-separation Techniques (ITP 2010), Baltimore, MD, September 2010; paper L-309 (invited talk).
88. Woolley, A.T.; Yang, W.; Nge, P.; Yu, M. Multiplexed Microfluidic Systems Integrating Immunoaffinity Purification with Capillary Electrophoresis Separation for Cancer Biomarker Quantification. Presented at the 34th International Symposium on Capillary Chromatography, Riva del Garda, Italy, June 2010; paper PL.44 (invited talk).
87. Woolley, A.T.; Pound, E.; Geng, Y.; Ashton, J.R.; Rowley, M.B. DNA origami nanofabrication, localization and metallization. Presented at DNA-Based MicroNano-Integration, Jena, Germany, May 2010 (invited talk).
86. Woolley, A.T. DNA-templated nanofabrication for forming electrical circuit elements. Presented at the CMOS Emerging Technologies 2010 Workshop, Whistler, BC, Canada, May 2010 (invited talk).
85. Woolley, A.T.; Yang, W.; Nge, P.N. Microchip Capillary Electrophoresis: A New Experiment for Undergraduate Instrumental Analysis. Presented at the 239th ACS National Meeting, Division of Chemical Education, San Francisco, CA, March 2010; paper 1663 (contributed talk).
84. Woolley, A.T. Integrated Affinity/Capillary Electrophoresis Microchips for Multiplexed Biomarker Quantitation. Presented at Pittcon 2010, Orlando, FL, March 2010, paper 2130-5 (invited talk).
83. Woolley, A.T. Microfabricated Analysis Systems: Faster and Smaller, but Still Working Toward Better. Presented at Pittcon 2010, Orlando, FL, March 2010, paper 350-5 (invited talk).
82. Woolley, A.T. A Microchip Capillary Electrophoresis Experiment for the Instrumental Analysis Laboratory. Society of Western Analytical Professors (SWAP) 2010, Salt Lake City, UT, February, 2010 (contributed talk).
81. Sun, X.; Li, D.; Farnsworth, P.B.; Tolley, H.D.; Warnick, K.F.; Lee, M.L.; Woolley, A.T. Improving Reproducibility and Performance in Microscale Electric Field Gradient Focusing. Presented at FACSS 2009, Louisville, KY, October 2009; paper 141 (invited talk).
80. Woolley, A.T. Microfluidic Devices: A New Platform for Classical Analytical Quantitation Methods. Department of Chemistry and Biochemistry Seminar, Brigham Young University, Provo, UT, September 22, 2009.
79. Woolley, A.T. Quantitation of Serum Biomarkers using Integrated Microfluidic Systems. Chemistry Department Seminar, Auburn University, Auburn, AL, August 20, 2009.
78. Woolley, A.T. A Microchip Capillary Electrophoresis Experiment for Undergraduate Instrumental Analysis Courses. Presented at the 64th Northwest Regional Meeting of the ACS, Tacoma, WA, June 2009; paper 190 (contributed talk).
77. Woolley, A.T. Integrated Immunoaffinity-Electrophoresis Microchips for Quantification of Target Proteins in Clinical Mixtures. Presented at the 33rd International Symposium on Capillary Chromatography, Portland, OR, May 2009 (invited talk).

76. Woolley, A.T. Integrated Microfluidic Systems for Point-of-care Protein Biomarker Quantitation. Chemistry Department Seminar, Oregon State University, Corvallis, OR, May 6, 2009.
75. Woolley, A.T. Applying Microfabrication Technologies to Point-of-care Biomarker Detection. Chemistry Department Seminar, University of South Florida, Tampa, FL, February 12, 2009.
74. Woolley, A.T. Nanofabrication Using DNA. Physics and Astronomy Department Colloquium, Brigham Young University, Provo, UT, January 21, 2009.
73. Woolley, A.T. DNA-Templated Nanowires, Nanocapillaries and Nanoelectronic Circuit Templates. Presented at the Materials Research Society (MRS) Fall 2008 Meeting, Boston, MA, December 2008; paper LL21.10 (invited talk).
72. Woolley, A.T. Integrated Polymer Microchip Systems for Protein Purification, Concentration and Analysis. Presented at the 47th Eastern Analytical Symposium and Exposition, Somerset, NJ, November 2008; paper 504 (invited talk).
71. Woolley, A.T. Applying Microfabrication Technologies to Cancer Detection. Current Topics in Molecular Life Science Seminar, Brigham Young University, Provo, UT, November 13, 2008.
70. Woolley, A.T. Microfluidic Systems for Biomolecular Analysis. Chemistry Department Seminar, University of Wyoming, Laramie, WY, September 19, 2008.
69. Woolley, A.T.; Stewart, J.T.; Becerril, H.A. DNA-Templated Nanomaterials and Nanocapillaries. Presented at SPIE Optics+Photonics 2008, San Diego, CA, August 2008; paper 7035-17 (invited talk).
68. Woolley, A.T. Multilayer Microfluidic Systems for Microchip Liquid Chromatography and Capillary Electrophoresis. Presented at the 50th Rocky Mountain Conference on Analytical Chemistry, Breckenridge, CO, July 2008; paper 117 (contributed talk).
67. Woolley, A.T.; Becerril, H.A.; Stewart, J.T.; Pound, E.; Geng, Y. DNA-Templated Nanomaterials and Constructs. Presented at the Joint ACS 63rd Northwest and 21st Rocky Mountain Regional Meeting, Park City, UT, June 2008; paper 70 (invited talk).
66. Woolley, A.T. DNA-Based Circuit Template and Nanocapillary Fabrication. Presented at DNA-Based Nanodevices 2008, Jena, Germany, May 2008 (contributed talk).
65. Woolley, A.T. Integrated Microdevices for Protein Purification, Preconcentration and Electrophoretic Separation. Presented at the 32nd International Symposium on Capillary Chromatography, Riva del Garda, Italy, May 2008; paper PL.08 (invited talk).
64. Woolley, A.T. Microfluidic Systems for Biomolecular Separations and Analysis. Chemistry Department Seminar, Lehigh University, Bethlehem, PA, April 23, 2008.
63. Woolley, A.T. Bioanalytical Separations in Multilayer Microfluidic Devices. Presented at Pittcon 2008, New Orleans, LA, March 2008; paper 1700-1 (award address).
62. Woolley, A.T.; Fuentes, H.V. Multilayer Microfluidic Devices: Applications in Automated Microchip Liquid Chromatography and Capillary Electrophoresis. Presented at LabAutomation 2008, Palm Springs, CA, January 2008 (invited talk).
61. Woolley, A.T. Chemistry of Cancer Detection. Presented as part of the Research Revolution: Science and the Shaping of Modern Life Series at the Orem Public Library, Orem, UT, January 24, 2008.
60. Woolley, A.T.; Fuentes, H.V.; Eves, D.J. Sacrificial Layer Fabrication of Multilayer Microfluidics. Presented at the 31st International Symposium on Capillary Chromatography & Electrophoresis, Albuquerque, NM, November 2007 (invited talk).

59. Woolley, A.T.; Sun, X.; Liu, J.; Lee, M.L. Electric Field Gradient Focusing in Monolithic Columns Using Nonfouling Materials. Presented at the 2007 AIChE Annual Meeting, Salt Lake City, UT, November 2007; paper 212d (contributed talk).
58. Woolley, A.T. Sacrificial Layer Fabrication Techniques for Multilayer Microfluidic Analysis Systems. Analytical Chemistry Seminar, Indiana University, Bloomington, IN, October 30, 2007.
57. Woolley, A.T.; Sun, X.; Yang, W. Polymeric Microdevices with Monolithic Columns for Bioanalysis. Presented at the 34th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Memphis, TN, October 2007; paper 524 (invited talk).
56. Fuentes, H.V.; Larsen, M.G.; Woolley, A.T. Fabrication and Characterization of Multilayer Polymer Microfluidic Systems with Crossover Channels. Presented at μTAS2007, Paris, France, October 2007; paper T7B (poster).
55. Sun, X.; Woolley, A.T. Solvent Imprinting and Bonding for Rapid Prototyping of Polymer Microchips. Presented at the 234th ACS National Meeting, Division of Analytical Chemistry, Boston, MA, August 2007; paper 398 (contributed talk).
54. Becerril, H.A.; Stewart, J.T.; Woolley, A.T. DNA-Templated Nanopore Fabrication. Presented at the 234th ACS National Meeting, Division of Inorganic Chemistry, Boston, MA, August 2007; paper 426 (contributed talk).
53. Woolley, A.T. DNA on Surfaces: Applications in Genetic Analysis and Nanofabrication. Seminar at the Wellcome Trust Centre for Human Genetics, Oxford, UK, June 7, 2007.
52. Woolley, A.T. Sacrificial Layer Methods for Fabricating Microfluidic Systems on Various Substrates. Institute for Biomedical Engineering Seminar, Imperial College, London, UK, June 5, 2007.
51. Woolley, A.T. DNA: A Versatile Platform for Templated Nanofabrication. Center for Hierarchical Manufacturing Workshop, University of Massachusetts, Amherst, MA, May 17, 2007.
50. Woolley, A.T. Sacrificial Layer and Rapid Prototyping Methods for Creating Microfluidic Devices in Various Materials. Research Seminar at Microchip Biotechnologies Inc., Dublin, CA, April 11, 2007.
49. Woolley, A.T. Sacrificial Layer and Rapid Prototyping Methods for Creating Microfluidic Devices in Various Materials. Presented at the Materials Research Society (MRS) Spring 2007 Meeting, San Francisco, CA, April 2007; paper P2.6 (invited talk).
48. Woolley, A.T. Micromachined Systems for Electric Field Gradient Focusing of Biomolecules. Presented at Pittcon 2007, Chicago, IL, March, 2007; paper 2420-5 (invited talk).
47. Peeni, B.A.; Yang, W.; Fuentes, H.V.; Sun, X.; Lee, M.L.; Hawkins, A.R.; Woolley, A.T. Sacrificial Layer Fabrication of Microfluidic Bioanalysis Devices. Presented at the 21st International Symposium on MicroScale Bioseparations (MSB 2007), Vancouver, BC, Canada, January 2007; paper L5-23-T (contributed talk).
46. Woolley, A.T.; Kelly, R.T.; Peeni, B.A.; Li. Y. Sacrificial Layer Methods for Making High-Performance Capillary Electrophoresis Microchips. Presented at the 2006 AIChE Annual Meeting, San Francisco, CA, November 2006; paper 327e (contributed talk).
45. Woolley, A.T. Sacrificial Layer Methods for Fabricating Microfluidic Analysis Systems. Center for Analytical Biotechnology Seminar, University of California, Berkeley, CA, November 14, 2006.

44. Woolley, A.T. DNA-Templated Nanofabrication. Presented at NanoUtah 2006, Salt Lake City, UT, October 2006, paper M-T4-P4 (contributed talk and poster).
43. Woolley, A.T.; Peeni, B.A.; Lee, M.L.; Hawkins, A.R. Microfluidic Bioanalysis Systems Formed using Sacrificial Layer Methods. Presented at the 33rd Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Orlando, FL, September 2006; paper 579 (contributed talk).
42. Woolley, A.T. DNA-templated construction of metal, semiconductor and biological nanostructures. Presented at the International Symposium on DNA-Based Nanoscale Integration, Jena, Germany, May 2006 (contributed talk).
41. Woolley, A.T.; Kelly, R.T.; Li. Y.; Pan, T. Progress Toward Developing Polymer Microfluidic Systems for Point-of-Care Diagnostics. Presented at the Improving Health Care Accessibility Through Point-of-Care Technologies Workshop sponsored by NIBIB, NHLBI and NSF, Arlington, VA, April 2006 (poster).
40. Woolley, A.T. DNA-Templated Fabrication of Novel Linear and Branched Nanostructures. Presented at the 231st ACS National Meeting, Division of Inorganic Chemistry, Atlanta, GA, March 2006; paper 80 (contributed talk).
39. Woolley, A.T. Phase-Changing Sacrificial Materials for Microchip Electric Field Gradient Focusing. Presented at Pittcon 2006, Orlando, FL, March, 2006; paper 380-1 (contributed talk).
38. Woolley, A.T. New Sacrificial Layer Methods for Fabricating Microfluidic Analysis Systems. Chemistry and Biochemistry Department Seminar, Texas Tech University, Lubbock, TX, November 16, 2005.
37. Woolley, A.T. Micromachined Systems for Electrically Driven Analysis of Biomolecules. Biomedical Engineering Seminar, University of California, Irvine, CA, October 27, 2005.
36. Woolley, A.T.; Li, Y.; Pan, T.; Kelly, R.T. Microchip Surface Modification and Membrane-Based Sample Enrichment for Enhanced Bioanalysis in Polymeric Microdevices. Presented at the 32nd Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Quebec City, Quebec, October, 2005; paper 487 (contributed talk).
35. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Phase-Changing Sacrificial Materials for the Fabrication of Microfluidic Analysis Systems in Polymers. Presented at μTAS2005, Boston, MA, October 2005; paper M52B (poster).
34. Woolley, A.T. New Fabrication Methods and Analysis Techniques in Plastic Microfluidic Systems. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (invited talk).
33. Woolley, A.T. Microfabricated Electrically Driven Bioanalysis Systems. Analytical/Environmental Chemistry Seminar, University of Washington, Seattle, WA, April 25, 2005.
32. Woolley, A.T. New Fabrication Methods, Analysis Techniques, and Device Materials: Enabling Labs-on-a-Chip. Society of Analytical Chemists of Pittsburgh (SACP) Lab-on-a-Chip Symposium, Duquesne University, Pittsburgh, PA, April 9, 2005 (invited talk).
31. Woolley, A.T. DNA-Templated Linear and Three-Branched Nanostructures. Research Seminar at Cambrios Technologies, Mountain View, CA, March 22, 2005.
30. Woolley, A.T.; Lee, M.L.; Kelly, R.T.; Humble, P.H.; Pan, T.; Liu, J. Electrically Driven Microfluidic Systems for Enhanced Protein Analysis. Presented at the 18th International

Symposium on MicroScale Bioseparations (MSB 2005), New Orleans, LA, February, 2005 (invited talk).

29. Woolley, A.T. DNA-Templated Three-Branched Nanostructures. Society of Western Analytical Professors (SWAP) 2005, Fort Collins, CO, January, 2005 (contributed talk).
28. Woolley, A.T. Miniaturized Electrically Driven Systems for Protein Analysis. Presented at the 31st Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Portland, OR, October, 2004; paper 445 (invited talk).
27. Woolley, A.T. Fabrication and Characterization of Micromachined Systems for Electrically Driven Protein Analysis. Analytical/Physical Chemistry Seminar, University of Texas, Austin, TX, September 9, 2004.
26. Woolley, A.T. Miniaturization of Electrically Driven Methods for Enhanced Protein Analysis. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 41 (invited talk).
25. Woolley, A.T. DNA-Templated Fabrication of Carbon Nanotube and Metal Nanowires. International Symposium on DNA-Based Molecular Electronics, Jena, Germany, May 2004 (invited talk).
24. Woolley, A.T. DNA-Templated Fabrication of Nanostructures for Bottom-Up Nanoelectronic Systems, Army Research Office Workshop for the On-Chip Detection of Biological and Chemical Molecules, Raleigh, NC, April 2004 (invited talk).
23. Woolley, A.T. Miniaturization in Biochemical Analysis: Microfluidics, Nanotechnology and More. Chemistry Department Seminar, Colorado State University, Fort Collins, CO, March 31, 2004.
22. Woolley, A.T. Lessons learned from incorporating an independent project into the sophomore quantitative analysis laboratory course. Society of Western Analytical Professors (SWAP) 2004, Salt Lake City, UT, January, 2004 (contributed talk).
21. Woolley, A.T.; Draper, M.; Kelly, R.T.; Pan, T.; Munyan, J.W.; Lewis, B.A. New Materials and Modules for Lab-on-a-Chip Analysis. Presented at the 30th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Fort Lauderdale, FL, October, 2003 (invited talk).
20. Woolley, A.T. DNA-templated nanofabrication: integration of synthetic nanotechnology with biology. Presented at the US-Japan Symposium on Nanotechnology in Advanced Therapy and Diagnosis, Yokohama, Japan, October, 2003 (invited talk).
19. Woolley, A.T.; Hughes, S.D.; Monson, C.F.; Nelson, A.R.; Xin, H.; Craw, J.R.; Becerril, H.A. Surface Aligned DNA for Nanofabrication and Genetic Analysis. Presented at the BioMEMS and Biomedical Nanotechnology World 2003 Conference, Washington, DC, August, 2003 (poster).
18. Woolley, A.T. Miniaturization in Biochemical Analysis: From Microfluidics to Nanotechnology and Beyond. Presented at the 2003 Analytical Chemistry Gordon Research Conference, New London, CT, June 2003 (invited talk: young investigators session).
17. Woolley, A.T.; Draper, M.; Kelly, R.T.; Pan, T.; Munyan, J.W.; Lewis, B.A. Miniaturized Chemical Analysis Using Polymeric Microfluidic Devices. Presented at the 26th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2003 (invited talk).
16. Woolley, A.T.; Hughes, S.D.; Monson, C.F.; Nelson, A.R.; Xin, H.; Craw, J.R.; Becerril-Garcia, H.A. DNA-templated nanofabrication and nanopositioning on surfaces. Presented

at the 225th ACS National Meeting, Industrial and Engineering Chemistry Division, New Orleans, LA, March 2003; paper 217 (invited talk).

15. Woolley, A.T.; Kelly, R.T.; Munyan, J.W.; Draper, M.; Pan, T.; Lewis, B.A. New Methods and Tools for Microfluidic Analysis. Presented at Pittcon 2003, Orlando, FL, March, 2003; paper 380-5 (invited talk).
14. Woolley, A.T.; Kelly, R.T.; Munyan, J.W.; Draper, M.; Pan, T.; Lewis, B.A. New Tools and Device Designs for Microfluidic Analysis. Presented at the 29th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Providence, RI, October, 2002; paper 357 (invited talk).
13. Woolley, A.T.; Hughes, S.D.; Monson, C.F.; Nelson, A.R.; Xin, H.; Craw J.R. DNA Alignment, Characterization and Nanofabrication on Surfaces. Presented at the BioMEMS and Biomedical Nanotechnology World 2002 Conference. Columbus, OH, September, 2002 (invited talk).
12. Woolley, A.T.; Hughes, S.D.; Monson, C.F.; Nelson, A.R.; Xin, H. DNA Alignment, Patterning, Nanofabrication and Characterization on Surfaces. Presented at the 44th Rocky Mountain Conference on Analytical Chemistry. Denver, CO, August, 2002 (invited talk).
11. Woolley, A.T.; Hughes, S.D.; Monson, C.F.; Nelson, A.R.; Xin, H. DNA Alignment, Characterization and Nanofabrication on Surfaces. Presented at the International Workshop on DNA-Based Molecular Construction. Jena, Germany, May, 2002 (invited talk).
10. Woolley, A.T.; Kelly, R.T.; Hughes, S.D. DNA Manipulation, Analysis and Nanofabrication on Surfaces. Chemistry Department Seminar, Fort Lewis College, Durango, CO, October 12, 2001.
9. Woolley, A.T.; Kelly, R.T.; Hughes, S.D. DNA Manipulation, Analysis and Nanofabrication on Surfaces. Presented at the BioMEMS and Biomedical Nanotechnology World 2001 Conference. Columbus, OH, September, 2001 (invited talk).
8. Woolley, A.T.; Guillemette, C.; Housman, D.E.; Lieber, C.M. DNA Sequencing and Analysis with Carbon Nanotubes. Presented at the BioMEMS and Biomedical Nanotechnology World 2000 Conference. Columbus, OH, September, 2000 (invited talk).
7. Woolley, A.T.; Guillemette, C.; Housman, D.E.; Lieber, C.M. Functionalized Carbon Nanotubes for Probing Biomolecules at the Nanometer Scale. Presented at the 2nd Biannual Bioengineering of Nanostructures for Biomedical and Biotechnical Applications Conference. Boston, MA, December, 1999 (invited talk).
6. Woolley, A.T.; Wong, S.S.; Joselevich, E.; Lieber, C.M. Covalently Modified Carbon Nanotubes for Probing Biological Systems at the Molecular Scale. Presented at the 4th Annual Microdevices for Biomedical Applications Conference. San Jose, CA, April, 1999 (invited talk).
5. Woolley, A.T.; Simpson, P.C.; Williams S.J.; Mathies, R.A. Microfabricated Integrated DNA Analysis Systems. Presented at the 19th International Symposium on Capillary Chromatography and Electrophoresis. Wintergreen, VA, May, 1997; p. 18 (invited talk).
4. Woolley, A.T.; Simpson, P.C.; Mathies, R.A.; Northrup, M.A. DNA Amplification and Analysis in an Integrated Microdevice. Presented at Pittcon '97, Atlanta, GA, March, 1997; paper 467 (invited talk).

3. Woolley, A.T.; Northrup, M.A.; Mathies, R.A. Microfabricated Integrated DNA Analysis Systems. Presented at the 212th ACS National Meeting, Physical Chemistry Division, Orlando, FL, August, 1996; paper 155 (invited talk).
2. Woolley, A.T.; Zhu, H.; Clark, S.M.; Benson, S.C.; Rye, H.S.; Glazer, A.N.; Mathies, R.A. Capillary Array Electrophoresis of Double-Stranded DNA Fragments using Monomeric and Dimeric Fluorescent Intercalating Dyes. Presented at the 21st Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), St. Louis, MO, October, 1994; paper 0595.
1. Woolley, A.T.; Ott, J.B.; Sipowska, J.T.; Izatt, R.M. Excess Enthalpies for (n-butane + Acetonitrile) at (298.15, 323.15, and 348.15) K and at (5, 10, and 15) MPa. Presented at the 46th Annual Calorimetry Conference, DeKalb, IL, July, 1991; paper 92.

Student and Postdoc Presentations

121. Nielsen, A.V.; Nielsen, J.B.; Woolley, A.T. Electrophoretic Preparation of Preterm Birth Biomarkers in Photografted Microchips. Presented at LACE 2017, The 23rd Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Mexico City, Mexico, December 2017 (poster, PP-A-05).
120. Parker, E.K.; Sonker, M.; Gong, H.; Beauchamp, M.J. Nordin, G.P.; Woolley, A.T. Development of a 3D Printed Microfluidic Device for the Affinity Extraction of Preterm Birth Biomarkers. Presented at LACE 2017, The 23rd Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology, Mexico City, Mexico, December 2017 (poster, PP-A-04).
119. Gong, H.; Woolley, A.T.; Nordin, G.P. High Density, Reversible 3D Printed Microfluidic Interconnects. Presented at uTAS2017, Savannah, GA, October 2017; paper T219k (poster).
118. Beauchamp, M.J.; Gong, H.; Nordin, G.P.; Woolley, A.T. Microchip Electrophoresis of Preterm Birth Biomarkers in 3D Printed Devices. Presented at uTAS2017, Savannah, GA, October 2017; paper T184h (poster).
117. Nielsen, A.V.; Nielsen, J.B.; Woolley, A.T. Separation of a Panel of Preterm Birth Biomarkers using Microchip Electrophoresis. Presented at uTAS2017, Savannah, GA, October 2017; paper M182h (poster).
116. Knob, R.; Woolley, A.T. Affinity extraction of DNA for sepsis diagnosis using on-chip monoliths. Presented at the 253rd ACS National Meeting, Division of Analytical Chemistry, San Francisco, CA, April 2017; paper 47 (contributed talk).
115. Beauchamp, M.; Gong, H.; Nordin, G.P.; Woolley, A.T. Microchip electrophoresis separation of pre-term birth biomarkers in a 3D printed device. Presented at the 253rd ACS National Meeting, Division of Analytical Chemistry, San Francisco, CA, April 2017; paper 44 (contributed talk).
114. Hanson, R.; Knob, R.; Peine, B.; Darko, J.; Woolley, A.T. Sequence Specific Hybridization Capture and Fluorescent Labeling for Detecting Drug Resistance Genes Related to Sepsis. Presented at Pittcon 2017, Chicago, IL, March 2017, paper 2360-4 P (poster).
113. Sahore, V.; Sonker, M.; Kumar, S.; Woolley, A.T. Pressure-Actuated Microfluidic Devices Integrating Solid Phase Extraction, Fluorescent Labeling, and Microchip

Electrophoresis for Pre-Term Birth Biomarker Analysis. Presented at Pittcon 2017, Chicago, IL, March 2017, paper 1620-7 (contributed talk).

112. Sonker, M.; Sahore, V.; Parker, E.; Woolley, A.T. Electrokinetically Operated Integrated Microfluidic Platform for Immunoaffinity Extraction and Electrophoresis of Preterm Birth Biomarkers. Presented at Pittcon 2017, Chicago, IL, March 2017, paper 1370-6 (contributed talk).
111. Westover, T.; Lee, K. Jensen, J.: Uprety, B.; Davis, R.; Harb, J.; Woolley, A. 3D DNA Origami Templated Nanoscale Device Fabrication. Presented at the 13th Conference on Foundations of Nanoscience (FNANO16), Snowbird, UT, April 2016 (poster).
110. Knob, R.; Mills, R.K.; Woolley, A.T. Affinity Monoliths and Cryogels for On-chip Extraction of Bacterial DNA for Sepsis Diagnosis. Presented at Microscale Bioseparations 2016, Niagara on the Lake, ON, Canada, April 2016 (contributed talk).
109. Lee, K.; Jensen, J.K.; Uprety, B.; Stoddard, M.; Davis, R.; Harb, J.; Woolley, A. 3D DNA origami templated nanoscale device fabrication. Presented at the 251st ACS National Meeting, Division of Inorganic Chemistry, San Diego, CA, March 2016; paper 305 (poster).
108. Jensen, J.K.; Uprety, B.; Lee, K.; Harb, J.; Davis, R.; Woolley, A. Fabricating nanowires using site-specific attachment of gold nanoparticles and nanorods to DNA origami templates. Presented at the 251st ACS National Meeting, Division of Inorganic Chemistry, San Diego, CA, March 2016; paper 285 (poster).
107. Beauchamp, M.; Gong, H.; Perry, S.; Woolley, A.T.; Nordin, G. Optical Formulation of 3D Printer Resin for Minimum Microfluidic Flow Channel Size. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 2450-8 (contributed talk).
106. Sonker, M.; Knob, R.; Sahore, V.; Woolley, A.T. Electrokinetically Operated Integrated Microfluidic Platform for Preterm Birth Biomarker Analysis. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 2450-5 (contributed talk).
105. Nielsen, A.V.; Knob, R.; Woolley, A.T. Separation of Preterm Birth Biomarkers Using Capillary and Microchip Electrophoresis. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 2450-1 (contributed talk).
104. Knob, R.; Mills, R.K.; Woolley, A.T. Microchip Affinity Monoliths for Solid Phase Extraction of DNA for Bacteria Infection Detection. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 1950-6 (contributed talk).
103. Sahore, V.; Kumar, S.; Woolley, A.T. Pressure-Actuated Integrated Microfluidic Devices for Biomarker Analysis. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 1950-1 (contributed talk).
102. Beauchamp, M.; Gong, H.; Perry, S.; Nordin, G.; Woolley, A.T. Chemical Analysis Applications and Optical Properties of 3D Printed <100 μm Dimension Microfluidic Channels. Presented at Pittcon 2016, Atlanta, GA, March 2016, paper 1050-1 (contributed talk).
101. Sahore, V.; Kumar, S. Woolley, A.T. Pressure-Actuated Microfluidic Devices for Pre-Term Birth Biomarker Analysis. Presented at SciX 2015, Providence, RI, September 2015; (contributed talk).
100. Knob, R.; Sonker, M.; Yang, R.; Woolley, A.T. Evaluation of monolith formulations for on-chip solid phase extraction of preterm birth biomarkers. Presented at the 39th International Symposium on Capillary Chromatography, Ft. Worth, TX, May 2015, poster 32 (poster).

99. Sonker, M.; Yang, R.; Woolley, A.T. Electrokinetically Operated Integrated Microfluidic Platform for Preterm Birth Biomarker Analysis. Presented at the 39th International Symposium on Capillary Chromatography, Ft. Worth, TX, May 2015, lecture I35 (contributed talk).
98. Kumar, S; Sahore, V.; Woolley, A.T. Integration of solid-phase extraction and microchip electrophoresis for preterm birth biomarker analysis. Presented at the 39th International Symposium on Capillary Chromatography, Ft. Worth, TX, May 2015, poster 63 (poster) Received the First Place Best Poster Award.
97. Sahore, V.; Kumar, S.; Rogers, C.I.; Woolley, A.T. Pressure Actuated Microfluidic Devices for Electrophoretic Separations: Toward Pre-Term Birth Biomarker Analysis. Presented at Pittcon 2015, New Orleans, LA, March 2015, paper 2720-4 (contributed talk).
96. Brower, K.; Sonker, M.; Woolley, A.T. On-Chip Fluorescent Labeling of Preterm Birth Biomarkers and Their Electrophoretic Separation. Presented at Pittcon 2015, New Orleans, LA, March 2015, paper 2720-2 (contributed talk).
95. Kumar, S.; Sahore, V.; Rogers, C.I.; Woolley, A.T. Solid-Phase Extraction and Labeling Using a Pressure-Actuated Integrated Microfluidic System. Presented at Pittcon 2015, New Orleans, LA, March 2015, paper 2140-2 (contributed talk).
94. Sonker, M.; Yang, R.; Woolley, A.T. Development of an Electrokinetically Operated Microfluidic Platform for the Analysis of Preterm Birth Biomarkers. Presented at Pittcon 2015, New Orleans, LA, March 2015, paper 550-26 P (poster).
93. Kumar, S.; Stout, J.M.; Hawkins, A.R.; Woolley, A.T. Ionic Strength Effects on Protein Trapping in Thin-Film Fabricated Nanochannels. Presented at uTAS2014, San Antonio, TX, October 2014; paper W.331c (poster).
92. Chatterjee, D.; Yeakley, F.; Woolley, A.T. Flow-Valve Microfluidic Devices for Simple, Detectorless and Label-Free Quantitation of Nucleic Acids. Presented at uTAS2014, San Antonio, TX, October 2014; paper W.223b (poster).
91. Kumar, S.; Rogers, C.I.; Sonker, M.; Yang, R.; Woolley, A.T. Integration of solid-phase extraction, on-chip labeling and microchip electrophoresis on a microfluidic system. Presented at SciX 2014, Reno, NV, October 2014; (contributed talk).
90. Sonker, M.; Kumar, S.; Yang, R.; Woolley, A.T. Development of an Integrated Microfluidic Platform for the Analysis of Preterm Birth Biomarkers. Presented at SciX 2014, Reno, NV, October 2014; (contributed talk).
89. Pagaduan, J.; Sonker, M.; Kumar, S.; Woolley, A. Microfluidic Separation of Disease Biomarkers. Presented at HPLC 2014, the 41st International Symposium on High Performance Liquid Phase Separations and Related Techniques, New Orleans, LA, May 2014; paper P-T-1207 (poster).
88. Kumar, S.; Yang, R.; Rogers, C.I.; Woolley, A.T. An Integrated Microfluidic-based System for Complete Analysis of Preterm Birth Biomarkers. Presented at HPLC 2014, the 41st International Symposium on High Performance Liquid Phase Separations and Related Techniques, New Orleans, LA, May 2014; paper P-T-1205 (poster). Received Third Place in the Agilent Technologies Best Poster Award.
87. Rogers, C.; Oxborrow, J.; Tsai, L.-F.; Nordin, G.; Woolley, A.T. Polymerized Poly(ethylene glycol) Diacrylate Microfluidic Membrane Valves. Presented at Pittcon 2014, Chicago, IL, March 2014, paper 1690-6 P (poster).

86. Kumar, S.; Xuan, J.; Tolley, H.D.; Lee, M.L.; Hawkins, A.R.; Woolley, A.T. Thin-Film Microfabricated Nanofluidic Arrays for Size-Selective Protein Fractionation. Presented at Pittcon 2014, Chicago, IL, March 2014, paper 1040-2 (contributed talk).
85. Chatterjee, D.; Pagaduan, J.; Woolley, A.T. Flow-Valve Microfluidic Devices for Simple, Detectorless and Label-Free Quantitation of Proteins and Nucleic Acids. Presented at Pittcon 2014, Chicago, IL, March 2014, paper 160-8 (contributed talk).
84. Pagaduan, J.; Ramsden, M.; Derenthal, S.; O'Neill, K.; Woolley, A.T. Development of a Microfluidic Device Assay for Isoforms of a Serum Protein Cancer Biomarker Using a Novel Antibody. Presented at Pittcon 2014, Chicago, IL, March 2014, paper 160-6 (contributed talk).
83. Pagaduan, J.V.; Derenthal, S.; Ramsden, M.; Hamilton, C.; O'Neill, K.; Woolley, A.T. Development of Assay for Detecting Isoforms of Serum Protein Using Novel Antibody in Polymeric Microfluidic Devices. Presented at the 246th ACS National Meeting, Division of Industrial and Engineering Chemistry, Indianapolis, IN, September 2013; paper 35 (contributed talk).
82. Kumar, S.; Xuan, J.; Tolley, H.D.; Hawkins, A.R.; Lee, M.L.; Woolley, A.T. Fabrication of Planar Nanofluidic Devices and Their Application in Bioanalysis. Presented at the 246th ACS National Meeting, Division of Industrial and Engineering Chemistry, Indianapolis, IN, September 2013; paper 34 (contributed talk).
81. Gates, E.; Pearson, A.; Liu, J.; Uprety, B.; Davis, R.; Harb, J.; Woolley, A. Site-specific Metallization of Thin, Branched DNA Origami Structures for Conductive Nanowires. Presented at the 10th Conference on Foundations of Nanoscience (FNANO13): Self-Assembled Architectures and Devices, Snowbird, UT, April 2013 (poster).
80. Pound, E.; Pearson, A.C.; Liu, J.; Harb, J.N.; Davis, R.C.; Woolley, A.T. Progress Toward Nanoscale Electronic Circuits from Self-assembled DNA Templates. Presented at the 243rd ACS National Meeting, Division of Inorganic Chemistry, San Diego, CA, March 2012; paper 1076 (contributed talk).
79. Nge, P.N.; Pagaduan, J.; Yu, M.; Yang, W.; Woolley, A.T. Integrated Affinity and Reverse-Phase Monoliths for Extraction and Preconcentration in Microfluidic Chips. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 2050-5 (contributed talk).
78. Rogers, C.; Pagaduan, J.; Nordin, G.; Woolley, A.T. Utilizing Polymerized Polyethylene Glycol Diacrylate for Microfluidic Valves. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 2050-1 (contributed talk).
77. Chatterjee, D.; Mansfield, D.S.; Anderson, N.; Woolley, A.T. Flow-Valve Diagnostics for Label-Free, Point-of-Care Analyte Quantitation. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 440-1 (contributed talk).
76. Pagaduan, J.; Nge, P.N.; Yu, M.; Yang, W.; Woolley, A.T. Microfluidic Salivary IL-8 Assay as a Possible Oral Cancer Screening System. Presented at Pittcon 2012, Orlando, FL, March 2012, paper 120-3 (contributed talk).
75. Pearson, A.C.; Pound, E.; Liu, J.; Woolley, A.T.; Linford, M.R.; Harb, J.N.; Davis, R.C. Chemical Alignment of DNA Origami to Block Copolymer Patterned Arrays of 5 nm Gold Nanoparticles. Presented at NanoUtah 2011, Salt Lake City, UT, October 2011; paper MC-P46 (poster).
74. Pound, E.; Liu, J.; Pearson, A.C.; Geng, Y.; Havican, J.A.; Harb, J.N.; Davis, R.C.; Woolley, A.T. DNA Origami Templates for Nanoscale Nanoscale Electronics. Presented at NanoUtah 2011, Salt Lake City, UT, October 2011; paper DS-P23 (poster).

73. Rogers, C.I.; Pagaduan, J.V.; Nordin, G.P.; Woolley, A.T. Optimization and Evaluation of Polyethylene Glycol Diacrylate as a Nonadsorptive Polymeric Material for Microfluidics. Presented at uTAS2011, Seattle, WA, October 2011; paper M11F (poster).
72. Pearson, A.C.; Pound, E.; Woolley, A.T.; Linford, M.R.; Harb, J.N.; Davis, R.C. Alignment of DNA Origami to Block Copolymer Patterned Arrays of Gold Nanoparticles. Presented at the 8th Conference on Foundations of Nanoscience (FNANO11): Self-Assembled Architectures and Devices, Snowbird, UT, April 2011 (poster).
71. Pound, E.; Geng, Y.; Halbert, M.; Havican, J.; Liu, J.; Pearson, A.; Madaan, N.; Linford, M.R.; Davis, R.C.; Harb, J.N.; Woolley, A.T. Formation, Surface Assembly and Metallization of Thin, Branched DNA Origami Nanostructures for Nanoelectronics Applications. Presented at the 8th Conference on Foundations of Nanoscience (FNANO11): Self-Assembled Architectures and Devices, Snowbird, UT, April 2011 (poster).
70. Geng, Y.; Liu, J.; Pound, E.; Gyawali, S.; Havican, J.; Hickey, J.; Harb, J.N.; Woolley, A.T. Metallization of DNA Origami Structures for Nanocircuits. Presented at the 8th Conference on Foundations of Nanoscience (FNANO11): Self-Assembled Architectures and Devices, Snowbird, UT, April 2011 (poster).
69. Nge, P.N.; Yang, W.; Woolley, A.T. Ion-permeable Membrane for On-chip Preconcentration and Separation of Cancer Marker Proteins. Presented at Pittcon 2011, Atlanta, GA, March 2011, paper 2020-6P (poster).
68. Pagaduan, J.V.; Yang, W.; Woolley, A.T. Development of On-chip Extraction and Analysis of Nucleic Acid Cancer Biomarkers. Presented at Pittcon 2011, Atlanta, GA, March 2011, paper 2020-5P (poster).
67. Rogers, C.; Nordin, G.P.; Woolley, A.T. Optimization of Nonadsorptive Polyethylene Glycol Acrylate as a Material for Microfluidics. Presented at Pittcon 2011, Atlanta, GA, March 2011, paper 350-3 (oral).
66. Pound, E.; Ashton, J.R.; Havican, J.A.; Pearson, A.C.; Geng, Y.; Davis, R.C.; Harb, J.N.; Woolley, A.T. Design and Controlled Surface Placement of DNA Origami Circuit Templates. Presented at the MRS Fall 2010 Meeting, Boston, MA, December 2010; paper Y13.28 (poster).
65. Pearson, A.C. Pound, E.; Woolley, A.T.; Linford, M.R.; Harb, J.N.; Davis, R.C. Surface Localization of DNA Origami Using a Block Copolymer Patterned Surface. Presented at NanoUtah 2010, Salt Lake City, UT, October 2010; paper MC-P49 (poster).
64. Madaan, N.; Terry, A.; Pound, E.; Pearson, A.C.; Woolley, A.T.; Davis, R.C.; Harb, J.N.; Linford, M.R. Chemically Stable Functionalization of Au(111) with Custom-synthesized Polymers and Thiolated DNA for Self-assembly of Nanocircuits. Presented at NanoUtah 2010, Salt Lake City, UT, October 2010; paper MC-P48 (poster).
63. Geng, Y.; Liu, J.; Pound, E.; Gyawali, S.; Harb, J.N.; Woolley, A.T. Metallization of DNA Origami for Nanocircuits. Presented at NanoUtah 2010, Salt Lake City, UT, October 2010; paper MC-P43 (poster).
62. Pound, E.; Havican, J.A.; Pearson, A.C.; Davis, R.C.; Harb, J.N.; Woolley, A.T. DNA Origami Template Assembly and Surface Placement for Nano-scale Electronic Circuits. Presented at NanoUtah 2010, Salt Lake City, UT, October 2010; paper DS-P21 (poster).
61. Yu, M.; Woolley, A.T. On-column Labeling of Proteins with Chameleon Dye for Microchip Capillary Electrophoresis in 2-D and 3-D Polymer Microdevices. Presented at

the 34th International Symposium on Capillary Chromatography, Riva del Garda, Italy, June 2010; paper KNL.10 (oral).

60. Pound, E.; Ashton, J.R.; Havican, J.A.; Pearson, A.C.; Rowley, M.B.; Davis, R.C.; Harb, J.N.; Woolley, A.T. DNA Origami for Nanoelectronic Circuit Templates. Presented at the 7th Conference on Foundations of Nanoscience (FNANO10): Self-Assembled Architectures and Devices, Snowbird, UT, April 2010 (poster).
59. Liu, J.; Geng, Y.; Pound, E.; Ashton, J.; Gyawali, S.; Havican, J.A.; Woolley, A.T.; Harb, J.N. Metallization of Branched DNA Origami for Nanoelectronic Circuit Fabrication. Presented at the 7th Conference on Foundations of Nanoscience (FNANO10): Self-Assembled Architectures and Devices, Snowbird, UT, April 2010 (poster).
58. Geng, Y.; Liu, J.; Pound, E.; Olsen, C.; Harb, J.N.; Woolley, A.T. Selective and Continuous Metallization of Lambda DNA and DNA Origami Using Palladium Seeding. Presented at the MRS Spring 2010 Meeting, San Francisco, CA, April 2010; paper Q10.2 (oral).
57. Nge, P.; Yang, W.; Woolley, A.T. Enhanced Microchip Electrophoresis of Cancer Marker Proteins Using On-Chip Preconcentration with an Ion-Permeable Membrane. Presented at Pittcon 2010, Orlando, FL, March 2010, paper 2660-6 (oral).
56. Yang, W.; Sun, X.; Woolley, A.T. Integrated Affinity Column Microdevices for Multiplexed Biomarker Analysis. Presented at Pittcon 2010, Orlando, FL, March 2010, paper 2590-7 (oral).
55. Yu, M.; Wang, H.-Y.; Woolley, A.T. Off- or On-chip Labeling of Proteins with Chameleon Dye for Polymer Microchip Capillary Electrophoresis. Presented at Pittcon 2010, Orlando, FL, March 2010, paper 2470-10P (poster).
54. Yu, M.; Wang, H.-Y.; Woolley, A.T. Polymer Microchip Capillary Electrophoresis of Proteins Either Off- or On-Chip Labeled With Chameleon Dye for Simplified Analysis. Presented at LabAutomation 2010, Palm Springs, CA, January 2010; paper MP64 (poster).
53. Yang, W.; Yu, M.; Sun, X.; Woolley, A.T. Integrated Affinity Column/Capillary Electrophoresis Microdevices for Multi-Biomarker Analysis in Human Serum. Presented at LabAutomation 2010, Palm Springs, CA, January 2010; paper MP62 (poster).
52. Wang, H.-Y.; Yang, W.; Yu, M.; Woolley, A.T. Integrated Microfluidic Device for Detection of Biomarkers in Biological Samples. Presented at the 3rd Annual World Congress of Gene-2009, Foshan, China, December 2009 (invited talk).
51. Liu, J.; Y. Geng, Y.; Pound, E.; Ashton, J.; Gyawali, S.; Olsen, C.; Woolley, A. T.; Harb, J. N. Metallization of DNA Origami Templates for Nanoelectronic Circuits. Presented at the MRS Fall 2009 Meeting, Boston, MA, December 2009; paper M6.2 (oral).
50. Wang, H.-Y.; Yu, M.; Woolley, A.T. Integrated Microfluidic System for Detection of Biomarkers in Biological Samples. Presented at μTAS2009, Jeju, Korea, November 2009 (poster).
49. Sun, X.; Woolley, A.T. Aptamer-Immobilized Magnetic Bead Based Assay of Thrombin in a Microfluidic Chip. Presented at the 33rd International Symposium on Capillary Chromatography, Portland, OR, May 2009; paper P-905-W (poster).
48. Eves, D.J.; Woolley, A.T. Improvements to multilayer polymer microfluidic systems: Increased template robustness and integrating affinity agents to enhance protein analysis. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper ANYL 198 (oral).

47. Yang, W.; Sun, X.; Woolley, A.T. Integrated affinity column/capillary electrophoresis microdevices for alpha-fetoprotein analysis in human serum. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper ANYL 196 (oral).
46. Geng, Y.; Liu, J.; Harb, J.N.; Woolley, A.T. Gas-phase metallization of surface DNA to make nanowires. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper INOR 512 (poster).
45. Liu, J.; Mangold, B.; Pound, E.; Conley, H.J.; Harb, J.N.; Woolley, A.T.; Davis, R.C. Metallization of DNA templates for nanoelectric circuits. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper INOR 364 (oral).
44. Pound, E.; Ashton, J.R.; Becerril, H.A.; Conley, H.J.; Harb, J.N.; Davis, R.C.; Woolley, A.T. DNA origami templates for nanoelectric circuits. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper INOR 363 (oral).
43. Ashton, J.R.; Pound, E.; Davis, R.C.; Woolley, A.T. 3-D DNA origami for the design of nanostructures. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper INOR 362 (oral).
42. Mathews, D.L.; Yang, W.; Eves, D.J.; Woolley, A.T. Fabrication of polymeric microfluidic devices for use in bioanalysis. Presented at the 237th ACS National Meeting, Salt Lake City, UT, March 2009; paper ANYL 79 (poster).
41. Yang, W.; Sun, X.; Woolley, A.T. Integrated Affinity Column Microdevices for Alpha-Fetoprotein Analysis. Presented at Presented at Pittcon 2009, Chicago, IL, March 2009; paper 2930-3 (oral).
40. Sun, X.; Wang, Y.; Woolley, A.T. A General Surface Modification Approach for Polymer Microchips using a Poly(Methyl Methacrylate) Copolymer Film Doped with Hydroxypropyl Cellulose. Presented at Presented at Pittcon 2009, Chicago, IL, March 2009; paper 1300-8P (poster).
39. Eves, D.J.; Woolley, A.T. Fabrication and Optimization of Multilayer Cross-Over Separation Microdevices for Protein Analysis. Presented at Presented at Pittcon 2009, Chicago, IL, March 2009; paper 770-3 (oral).
38. Sun, X.; Yang, W.; Woolley, A.T. Surface Modification of Poly(methyl Methacrylate) Microfluidic Devices Using Thin Films with Entrapped Hydroxypropyl Cellulose. Presented at μTAS2008, San Diego, CA, October 2008; paper M5C (poster).
37. Yang, W.; Sun, X.; Woolley, A.T. Integrated Immunoaffinity Monolith/Polyacrylamide-Membrane/Electrophoresis Microdevices for Trace Biomarker Analysis. Presented at μTAS2008, San Diego, CA, October 2008; paper M40A (poster).
36. Wang, H.-Y.; Yang, W.; Sun, X.; Woolley, A.T. Integrated Microfluidic System for Detection of Biomarkers in Biological Samples. Presented at the 35th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Reno, NV, October 2008; paper 501 (oral).
35. Eves, D.J.; Fuentes, H.V.; Woolley, A.T. Multilayer Crossover Poly(methyl Methacrylate) Separation Devices for Protein Analysis. Presented at the 50th Rocky Mountain Conference on Analytical Chemistry, Breckenridge, CO, July 2008; paper 121 (oral).
34. Yang, W.; Sun, X.; Woolley, A.T. Integrated Immunoaffinity/Preconcentration/ Electrophoresis Microdevices for Trace Protein Analysis. Presented at the Joint ACS 63rd Northwest and 21st Rocky Mountain Regional Meeting, Park City, UT, June 2008; paper 215 (poster).

33. Sun, X.; Yang, W.; Woolley, A.T. A General Surface Modification Method for Polymer Microchips Using Thin Polymer Films with Entrapped Hydroxypropyl Cellulose. Presented at the Joint ACS 63rd Northwest and 21st Rocky Mountain Regional Meeting, Park City, UT, June 2008; paper 207 (poster).
32. Yang, W.; Sun, X.; Woolley, A.T. Integrated Affinity Monolith and Semi-Permeable Membrane Microdevices for Electrophoretic Biomarker Analysis. Presented at the 49th Annual National Student Research Forum, Galveston, TX, April 2008; poster 1 (poster).
31. Sun, X.; Yang, W.; Pan, T.; Woolley, A.T. Electrophoretic Concentration and Separation of Proteins in Monolithic Column Integrated PMMA Microchips. Presented at Pittcon 2008, New Orleans, LA, March 2008; paper 2370-8 (poster).
30. Yang, W.; Sun, X.; Woolley, A.T. Integrated Affinity Monolith and Semi-permeable Membrane Preconcentrators for Polymer Microchip Capillary Electrophoresis. Presented at Pittcon 2008, New Orleans, LA, March 2008; paper 2270-6 (oral).
29. Sun, X.; Yang, W.; Pan, T.; Woolley, A.T. Integrated Protein Preconcentration and Separation Microdevices Prepared by Rapid Prototyping using Solvent Imprinting. Presented at the 34th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Memphis, TN, October 2007; paper 499 (poster).
28. Yang, W.; Pan, T.; Sun, X.; Woolley, A.T. Affinity Monolith Preconcentrators for Polymer Microchip Capillary Electrophoresis. Presented at the 34th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Memphis, TN, October 2007; paper 433 (oral).
27. Becerril, H.A.; Woolley, A.T. Sacrificial DNA Templates for Highly Parallel Nanolithography. Presented at the 233rd ACS National Meeting, Division of Inorganic Chemistry, Chicago, IL, March 2007; paper 377 (poster).
26. Fuentes, H.V.; Woolley, A.T. Phase-Changing Sacrificial Layer Fabrication of Multilayer Polymer Microchips. Presented at Pittcon 2007, Chicago, IL, March, 2007; paper 2530-1 (oral).
25. Yang, W.; Pan, T.; Woolley, A.T. Affinity Monolith Preconcentrators for Polymer Microchip Capillary Electrophoresis. Presented at Pittcon 2007, Chicago, IL, March, 2007; paper 2020-7 (poster).
24. Washburn, A.L.; Becerril, H.A.; Woolley, A.T. Silver-Catalyzed Fabrication of Copper Nanowires on DNA Templates. Presented at the 232nd ACS National Meeting, Division of Inorganic Chemistry, San Francisco, CA, September 2006; paper 759 (poster).
23. Becerril-Garcia, H.A.; Woolley, A.T. Novel DNA-Templated Materials: Protein Composites and Semiconductor Devices. Presented at the 232nd ACS National Meeting, Division of Inorganic Chemistry, San Francisco, CA, September 2006; paper 433 (oral).
22. Becerril, H.A.; Woolley, A.T. DNA-Templated Nanocomposites for Nanoelectronic Applications. Presented at the 3rd Conference on Foundations of Nanoscience (FNANO06): Self-Assembled Architectures and Devices, Snowbird, UT, April 2006 (poster).
21. Becerril-Garcia, H.A.; Washburn, A.L.; Woolley, A.T. Structural and Electronic Properties of DNA-Templated Materials. Presented at the 231st ACS National Meeting, Division of Inorganic Chemistry, Atlanta, GA, March 2006; paper 234 (poster).
20. Xin, H.; Woolley, A.T. DNA-Templated Nanotube Arrays. Presented at the 230th ACS National Meeting, Inorganic Chemistry Division, Washington, DC, August 2005; paper 413 (poster).

19. Li, Y.; Kelly, R.T.; Woolley, A.T. Membrane-Based Protein Preconcentration Microfluidic Devices. Presented at the 230th ACS National Meeting, Analytical Chemistry Division, Washington, DC, August 2005; paper 240 (poster).
18. Peeni, B.A.; Conkey, D.B.; Barber, J.P.; Lee, M.L.; Hawkins, A.R.; Woolley, A.T. Microfabrication of Planar Thin Film Microfluidic Systems. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (poster).
17. Pan, T.; Liu, J.; Lee, M.L.; Woolley, A.T. Covalent Surface Coating of Polymeric Microdevices for Protein Analysis. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (poster).
16. Li, Y.; Kelly, R.T.; Woolley, A.T. Membrane-based Protein Preconcentration Microfluidic Devices. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (poster).
15. Fuentes, H.V.; Woolley, A.T. Generating Pressure-Driven Flow in Microchannels by Electrochemical Actuation: Potential Application in Microchip Liquid Chromatography. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (poster).
14. Draper, M.; Kelly, R.T.; Woolley, A.T. Room Temperature Solvent Bonding and Solvent Imprinting of Polymeric Microdevices for Chemical Analysis. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (poster).
13. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Phase-Changing Sacrificial Materials for Creating Solvent-Bonded Capillary Electrophoresis and Electric Field Gradient Focusing Microchips. Presented at the 28th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2005 (oral).
12. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Development of Miniaturized Electric Field Gradient Focusing for Protein Analysis. Presented at Pittcon 2005, Orlando, FL, March 2005; paper 1590-3P (poster).
11. Fuentes, H.V.; Munyan, J.W.; Woolley, A.T. Towards Microchip Liquid Chromatography using Electrochemical Micropumps. Presented at Pittcon 2005, Orlando, FL, March 2005; paper 1590-5P (poster).
10. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Development of High-Performance Electromobility Focusing for Protein Analysis. Presented at the 31st Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS), Portland, OR, October, 2004; paper 390 (poster).
9. Fuentes, H.V.; Munyan, J.W.; Woolley, A.T. Micropumps for the Miniaturization of Pressure-Driven Liquid Separations. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 254 (poster).
8. Pan, T.; Liu, J.; Lee, M.L.; Woolley, A.T. Covalent Surface Coating of PMMA Microdevices for Protein Analysis. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 210 (poster).
7. Xin, H.; Woolley, A.T. Controlled Orientation of Single-Walled Carbon Nanotubes on Surfaces. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 209 (poster).

6. Becerril-Garcia, H.A.; Harrison, R.G.; Woolley, A.T. Advances in DNA-Templated Nanofabrication of Electronic Devices. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 208 (poster).
5. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Development of High-Performance Electromobility Focusing for Protein Analysis. Presented at the Joint ACS 59th Northwest and 18th Rocky Mountain Regional Meeting, Logan, UT, June 2004; paper 158 (poster).
4. Stoltenberg, R.M.; Becerril, H.A.; Monson, C.F.; Woolley, A.T. DNA-templated fabrication of copper nanowires. Presented at the 227th ACS National Meeting, Analytical Chemistry Division, Anaheim, CA, March 2004 (poster).
3. Becerril, H.A.; Stoltenberg, R.M.; Woolley, A.T. Ionic masking for low-background metallization of single-stranded DNA. Presented at the 227th ACS National Meeting, Analytical Chemistry Division, Anaheim, CA, March 2004 (poster).
2. Kelly, R.T.; Humble, P.H.; Lee, M.L.; Woolley, A.T. Development of Miniaturized Electromobility Focusing for Protein Separation and Concentration. Presented at Pittcon 2004, Chicago, IL, March 2004 (poster).
1. Kelly, R.T.; Woolley, A.T. Water-Based Thermal Bonding of Polymeric Substrates for Microfluidic Device Fabrication. Presented at the 26th International Symposium on Capillary Chromatography and Electrophoresis, Las Vegas, NV, May 2003 (poster).