

Christine Trinkle

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PROFESSIONAL PREPARATION

University of Kentucky	Mechanical Engineering	BSME 2001
University of Kentucky	Mechanical Engineering	MSME 2003
University of California, Berkeley	Mechanical Engineering	Ph.D. 2008

EMPLOYMENT

2014 – Present	Associate Professor of Mechanical Engineering, University of Kentucky
2008 – 2014	Assistant Professor of Mechanical Engineering, University of Kentucky
2003 – 2008	Research Assistant, University of California, Berkeley, BioPOETS Group (Biologically-inspired Photonics-Optofluidic-Electronic Technology and Science); Nano-Engineering Lab
2001 – 2003	Research Assistant, University of Kentucky, Precision Systems Lab
1998 – 2000	Engineer, Inkjet Printer Division, Lexmark International, Lexington, KY
1996 – 1998	Injection Mold Designer, Acramold, Inc., Burlington, KY

SELECTED PUBLICATIONS (*corresponding author)

1. G. Xiong, T.J. Flynn, **C.A. Trinkle**, and R. Xu*. “Development of an ex vivo breast cancer lung colonization model utilizing decellularized lung matrix.” *Integrative Biology*, 7(12):1518-25, 2015. Featured on cover.
2. **C.A. Trinkle*** and L.P. Lee. “High-Precision Microcontact Printing of Interchangeable Stamps Using an Integrated Kinematic Coupling.” *Lab on a Chip*, 11 (3), 2011.
3. H. Li, T.J. Flynn, J.C. Nation, J. Kershaw, L.S. Stephens, and **C.A. Trinkle***. “Photopatternable NdFeB Polymer Micromagnets for Microfluidics and Microrobotics Applications.” *Journal of Micromechanics and Microengineering*, 23 (065002), 2013.
4. F. DiBartolomeo, N. Ge, and **C.A. Trinkle***. “High-Throughput Creation of Microstructured PDMS Surfaces Using Microscale Dual Roller Casting.” *Journal of Micromechanics and Microengineering*, 22 (115013), 2012.
5. J. Leachman, H. Li, T.J. Flynn, L.S. Stephens, and **C.A. Trinkle***. “Statistical Analysis of Wear of Biplanar Deterministically-Arrayed Surfaces for Load Bearing Applications.” *Wear*, 331 (1-2), 2014.
6. J. Zhu, G. Xiong, **C.A. Trinkle**, and R. Xu. “Integrated Extracellular Matrix Signaling in Mammary Gland Development and Breast Cancer Progression.” *Histology and Histopathology*, 29 (9), 2014.
7. **C.A. Trinkle***, C. Morgan and L.P. Lee. “Kinematic Assembly of Soft-Polymer Biofluidic Circuits.” *Proceedings of ASPE 21st Annual Meeting*, Monterey Bay, CA, Oct 2006.

8. L. Xu* and **C.A. Trinkle**. “High Precision Method for Sequential Micro-Contact Printing Of Multiple Aligned Patterns.” *Proceedings of ASME 2009 IMECE*, Lake Buena Vista, FL.
9. K. Dunphy*, R. Karnik, **C.A. Trinkle**, and A. Majumdar. “Analysis of Governing Parameters for Silver-Silver Chloride Electrodes in Microfluidic Electrokinetic Devices.” *Microscale Thermophysical Engineering*, 9 (2), 2005.
10. **C.A. Trinkle**, P. Kichambare, R. Vallance*, B. Wong, M.P. Menguc, B. Sadanadan, A.M. Rao, A. Bah, K. Javed. “Thermal Transport During Nanoscale Machining by Field Emission of Electrons from Carbon Nanotubes.” *Journal of Heat Transfer*, 125 (4), 2003.

SYNERGISTIC ACTIVITIES

- GEMS program presenter and session developer (2012 – present): Developed an interactive session on Micro and Nanoscale Science for the GEMS (Girls Enjoying Math and Science) program aimed at middle- through high-school female students interested in math and science. The session is presented yearly during GEMS day at the University of Kentucky each fall.
- REU research advisor (2009 – present): Supervised summer undergraduate research as part of NSF-sponsored REU Engineered Bioactive Interfaces & Devices program. Program focuses on introducing outstanding junior and senior students to nano/bio research over the course of a 10-week program, with emphasis placed on inclusion of members from underrepresented groups.
- Science & Entertainment Exchange program sponsored by the National Academy of Sciences (2013 – present): presenter and consultant for program at national events. Program connects entertainment industry professionals with top scientists and engineers to create a synergy between accurate science and engaging storylines in both film and TV programming.
- Conference activities: Kentucky nanoSymposium (technical committee member), “Advanced Materials and Processing II” (session chair) Louisville, Kentucky, 2013. “Micro and Nano Systems in Medicine and Biology I” (session chair) and “Micro and Nano Systems in Medicine and Biology II” (session co-chair), ASME International Mechanical Engineering Congress and Exposition, Denver, Colorado, 2011. “BioMEMS and Microfluidics” (session chair and organizer), ASME Summer Bioengineering Conference, Farmington, PA 2011. “BioMEMS I” (session chair) and “BioMEMS II” (session co-chair), BMES Annual Meeting, Austin, TX, 2010. “Drug Delivery Technologies: Nano to Micro Devices II” (session chair), “Nano to Micro: Fluidic Technologies I” (session co-chair), and “Micro and Nanostructured Biomaterials II” (session co-chair), ASME International Mechanical Engineering Congress and Exposition, Vancouver, Canada, 2010.
- Teaching activities:
 - Course developer and instructor, ME 599/699 Biomimetic Engineering (developed spring 2011, offered annually).
 - Course developer and instructor, ME 599 Microsystems (developed in fall 2014) and ME/EE/MSE 555 Intro to Micro/Nano Electromechanical Systems (offered in fall 2016).
 - Instructor, Mechanical Design, ME 344 (offered twice a year, 2008-2015).
 - Instructor, Introduction to Manufacturing Systems, ME 151 (offered twice a year, 2015-2016).
 - Course developer and instructor, ME 251 Introduction to Materials and Manufacturing Processes (offered twice a year, 2016-).