

## Christine Trinkle

University of Kentucky  
Department of Mechanical Engineering  
277 Ralph G. Anderson Building  
Lexington, KY 40506-0503

(859) 257-6336 x80640  
trinkle@enr.uky.edu

### ***Professional Preparation***

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

### ***Appointments***

2/08 – present	Assistant Professor of Mechanical Engineering, University of Kentucky
1/05 – 2/08	Research Assistant, University of California, Berkeley, BioPOETS Group (Biologically-inspired Photonics-Optofluidic-Electronic Technology and Science)
8/03 – 12/04	Research Assistant, University of California, Berkeley, Nano-Engineering Lab
1/00 – 8/03	Research Assistant, University of Kentucky, Precision Systems Lab
5/98 – 1/00	Engineer: Inkjet Printer Division, Lexmark International, Lexington, KY
1/96 – 5/98	Injection Mold Designer, Acramold, Inc., Burlington, KY

### ***Publications***

- D.L. Thompson, A. Madon, and **C. Trinkle**. "Diffusion-Mediated Production Of Protein Gradients By Way Of Variable Depth Hydrogel Micro-Stamps." Proceedings of ASME 2009 IMECE, Lake Buena Vista, FL.
- L. Xu and **C. Trinkle**. "High Precision Method For Sequential Micro-Contact Printing Of Multiple Aligned Patterns." Proceedings of ASME 2009 IMECE, Lake Buena Vista, FL.
- F. DiBartolomeo and **C. Trinkle**. "High Throughput Continuous Fabrication Of Large Surface Area Microstructured PDMS." Proceedings of ASME 2009 IMECE, Lake Buena Vista, FL.
- C. Trinkle**, "Kinematic Alignment System for the Creation of Integrated Microfluidic Devices.", Ph.D. Thesis, University of California, Berkeley, 2008. Advisor: Prof. Luke P. Lee
- C. Trinkle**, C. Morgan and L.P. Lee. "High Precision Assembly of Soft-Polymer Microfluidic Circuits." Proceedings of ASME 2006 IMECE, Chicago, IL, Nov 2006.
- C. 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.

- K. Dunphy, R. Karnik, **C. Trinkle**, and A. Majumdar. "Analysis of Governing Parameters for Silver-Silver Chloride Electrodes in Microfluidic Electrokinetic Devices." *Microscale Thermophysical Engineering*, 9 (2), 2005.
- C. 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." *J. of Heat Transfer* 125 (4), 2003.
- C. Trinkle**, P. Smith, R. Vallance, B. Wong, and M.P. Menguc. "Thermal Finite Difference Analysis of Threshold Heating for Nanoscale Machining." Presented at ASME 2002 IMECE, New Orleans, LA, Nov 2002.
- C. Trinkle**, R. Vallance, M.P. Menguc, A. Bah, K. Javed, A.M. Rao, and S. Jin. "Nanoprobe Concepts for Field Emission Nanomachining." Proceedings of ASPE 17th Annual Meeting, St. Louis, MO, Nov 2002.

### ***Synergistic Activities***

Fall 2008 – Present: Instructor, Mechanical Design (ME344) at University of Kentucky.

Fall 2007: Developed core laboratory experiments for the Precision Manufacturing (ME220) course at the University of California, Berkeley.

Spring 2006: Guest lecturer in fluid dynamics and microfabrication for the BioMEMS (BioE121) course at University of California, Berkeley.

### ***Collaborators and Other Affiliations***

**Collaborators and Co-Editors:** Yang-Tse Cheng (University of Kentucky), Fuqian Yang (University of Kentucky)

**Graduate Advisors and Postdoctoral Sponsors:** Rodney Andrews (University of Kentucky Center for Applied Energy Research), David A. Dornfeld (University of California, Berkeley), John Forte (University of California, Berkeley), Luke P. Lee (University of California, Berkeley), Dorian Liepmann (University of California, Berkeley), M. Pinar Mengüç (University of Kentucky), R. Ryan Vallance (George Washington University)

**Thesis Advisor and Postgraduate-Scholar Sponsor:** Franklin DiBartolomeo (University of Kentucky), D. Ryan Lilly (University of Kentucky), Dewayne L. Thompson (University of Kentucky), Li Xu (University of Kentucky). Graduate students advised: 4, postdoctoral students sponsored: 0.

**Undergraduate Research Sponsor:** Dewayne L. Thompson (2008-2009), Ashley Madon (2008-2009), Halle Senger (Summer 2009)