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EDUCATION

- Ph.D., Mechanical Engineering, Northwestern University, 12/2009
Advisor: Yonggang Huang
- Ph.D. candidate, Mechanical Engineering, University of Illinois at Urbana-Champaign, 08/2006 – 08/2007
Advisor: Yonggang Huang
- M.S., Solid Mechanics, Tsinghua University, China, Jul 2006
Advisor: Keh-Chih Hwang
- B.S., Engineering Mechanics, Tsinghua University, China, Jul 2003

PROFESSIONAL EXPERIENCE

- 08/2011 – present, *Assistant Professor*, Mechanical Engineering, University of Colorado Boulder
- 01/2010 – 07/2011, *Postdoctoral Research Associate*, Materials Science and Engineering, University of Illinois at Urbana-Champaign
Advisor: John A. Rogers
- 08/2007 – 12/2009, *Graduate Research Assistant*, Mechanical Engineering, Northwestern University
- 01/2009 – 03/2009, *Teaching Assistant*, Mechanical Engineering, Northwestern University
- 08/2006 – 08/2007, *Graduate Research Assistant*, Mechanical Science and Engineering, University of Illinois at Urbana-Champaign
- 09/2003 – 07/2006, *Graduate Research Assistant*, Engineering Mechanics, Tsinghua University

AWARDS & HONORS

- ASME Haythornthwaite Research Initiation Grant, 2012
- NSF Fellowship for Summer Institute on Mechanics of Soft Materials, 2010
- Haythornthwaite travel grant for ASME IMECE, 2009 (declined)
- NSF travel grant for the Humboldt Kolleg, Nano-Bio: The Next Transformative Convergence, 2009

- Cabell Fellowship, Northwestern University, 2009
- NSF travel grant for NSF CMMI Research and Innovation Conference, 2009 (declined)
- Chinese Government Award for Outstanding Self-financed Students Abroad, 2008
- The Graduate School Conference Travel Grant, Northwestern University, 2008, 2009
- NSF Fellowship for Summer Institute on Energy Challenge and Nanotechnology, 2008
- Walter P. Murphy Fellowship, Northwestern University, 2007
- NSF Fellowship for Summer Institute on Nano Mechanics and Materials, 2007
- Tsinghua University Distinguished Leadership Award, 2001, 2002
- Academic Excellence Scholarship, Tsinghua University, 2000-2004

ACADEMIC SERVICE & ACTIVITIES

CONFERENCE ORGANIZATION

Topic Organizer, “Mechanics of Adhesion and Friction”, *ASME International Mechanical Engineering Congress & Exposition 2013*, November 15-21, 2013, San Diego, CA

Topic Organizer, “Mechanics of Adhesion”, *ASME International Mechanical Engineering Congress & Exposition 2012*, November 9-15, 2012, Houston, TX

Topic Organizer, “Mechanics of Thin Film and Multilayer Structures”, *49th Annual Technical Conference of Society of Engineering Sciences*, October 10-12, 2012, Georgia Tech, Atlanta, GA

Topic Organizer, “Mechanics of Adhesion”, *48th Annual Technical Conference of Society of Engineering Sciences*, October 12-14, 2011, Northwestern University, Evanston, IL

Session Chair, “Stress and Deformation of Thin Film and Multi-layer Materials III”, *ASME International Mechanical Engineering Congress & Exposition 2009*, November 13-19, 2009, Lake Buena Vista, FL

MEMBERSHIP

American Society of Mechanical Engineers

Society of Engineering Science

Materials Research Society

JOURNAL REVIEW

Carbon, Nanotechnology, Physical Review Letters, Physical Review B, Applied Physics Letters, International Journal of Fracture, Journal of Physics D: Applied Physics, Journal of Physics: Condensed Matter, Journal of Applied Mechanics, Computational Mechanics, Journal of Engineering Materials and Technology, Computational Materials Science, Mechanics Research Communications, Thin Solid Films, Reports on Progress in Physics, Proceedings of the Royal Society A

GRANT PROPOSAL REVIEW

National Science Foundation: EFRI (2011), CMMI (2012), EFRI (2012)

TEACHING & STUDENT GUIDANCE ACTIVITIES

STUDENT SUPERVISION

Zhengwei Li, Ph.D., Mechanical Engineering (expected 2016)

Yu Wang, Ph.D., Mechanical Engineering (expected 2015)

Narasimha Boddeti, Ph.D., Mechanical Engineering (co-supervising with Martin Dunn, expected 2015)

Kai Yu, Ph.D., Mechanical Engineering (co-supervising with Jerry Qi, expected 2015)

Krishan Patel, B.S., Mechanical Engineering (2012-2013)

Da Zhou, B.S., Mechanical Engineering (2012-2013)

Devnandan Krishnamoorthy, M.S., Electrical Engineering (expected 2013)

Hailong Ji, M.S., Mechanical Engineering (expected 2013)

Vibin Mahadev Sankaranarayanan, M.S., Mechanical Engineering (expected 2013)

PhD COMMITTEES

Qingcong Hu (Electrical, Computer, and Energy Engineering, 2011), Yushan Li (Electrical, Computer, and Energy Engineering, 2012), Feng Miao (Mechanical Engineering, 2012), Qi Ge (Mechanical Engineering, 2012), Binglian Wang (Mechanical Engineering, 2012) Nathan Sutton (Electrical, Computer, and Energy Engineering, expected 2013), Xinghui Liu (Mechanical Engineering, expected 2013), Steven Koenig (Mechanical Engineering, expected 2013), Narasimha Boddeti (Mechanical Engineering, expected 2013)

MS COMMITTEES

John D Sweetser (Mechanical Engineering, 2012)

COURSES TAUGHT

MCEN 4173/5173, Finite Element Analysis, Fall 2011, Fall 2012

MCEN 4228/5228, Thin Film Materials, Spring 2012, Spring 2013

BOOK CHAPTERS

- [B4] S. Wang, **J. Xiao**, J. Song, Y. Huang, and J. A. Rogers, “Mechanics of Curvilinear Electronics”, in *Nano and Cell Mechanics: Fundamentals and Frontiers* (eds. Horacio D. Espinosa, and Gang Bao), Wiley, Hoboken, NJ, Chapter 13 (2013).
- [B3] **J. Xiao**, W. Zhou, Y. Huang, J.M. Zuo, and K.C. Hwang, “Potentials For van der Waals Interaction in Nano-scale Computation”, in *Trends in Computational Nanomechanics: Transcending Length and Time Scales* (ed. Traian Dumitrica), Springer, New York, Chapter 12 (2010).

- [B2] **J. Xiao**, H. Jiang, Y. Huang, and J. A. Rogers, “Mechanics of stiff thin films of controlled wavy geometry on compliant substrates for stretchable electronics”, in *Semiconductor Nanomaterials for Flexible Technologies: From Photovoltaics and Electronics to Sensors and Energy Storage* (eds. Yugang Sun, and John A. Rogers) Elsevier, New York, Chapter 10 (2010).
- [B1] **J. Xiao**, D.-Y. Khang, Y. Huang, and J. A. Rogers, “Buckling Mechanics of Carbon Nanotubes on Elastomeric Substrates”, in *Recent developments in modeling and applications of Carbon Nanotubes* (eds. Q. Wang, B.I. Yakobson, and K.M. Liew), Research Signpost/Transworld Research Network, Kerala, India, pp 49-70 (2009).

REFEREED JOURNAL PUBLICATIONS (* as corresponding author)

- [J38] Y. M. Song⁺, Y. Xie⁺, V. Malyarchuk⁺, **J. Xiao**⁺, I. Jung, K.-J. Choi, Z. Liu, H. Park, C. Lu, R.-H. Kim, R. Li, K. B. Crozier, Y. Huang, and J. A. Rogers, Digital Cameras With Designs Inspired By the Arthropod Eye, *Nature* 497, 95–99 (2013)
 -----⁺ *These authors contributed equally to this work.*
 ----- *This paper is a feature article reported by Nature on 5/2/2013 [Published online <http://www.nature.com/nature/journal/v497/n7447/full/497047a.html> (Nature News & Views)].*
 ----- *Reported by Nature, Science, BBC, CNN, AFP, ABC, UPI, NBC, TIME, NPR, The Washington Post, National Geographic, Bloomberg, Businessweek, Xinhua, Sohu, Sina, ChinaNews, Yahoo, Wired, The Times of India, The Irish Times, The Hindu (India), The Australian, The Straits Times (Singapore), Science Daily, RIA Novosti (Russia), RedOrbit, PhysOrg, Physics Today, LATimes, IndiaTimes, India Express, Herald Sun (Australia), Gulf Times (Qatar), Guardian (UK), French Tribune, DailyTelegraph (UK), Daily Mail (UK), BangkokPost (Thailand), Stuff.co.nz ...*
- [J37] N. G. Boddeti, S. P. Koenig, R. Long, **J. Xiao**, J. S. Bunch, and M. L. Dunn, Mechanics of Pressurized Graphene Blisters, *Journal of Applied Mechanics-Transactions of the ASME* (accepted)
- [J36] X. Liu, N.G. Boddeti, M.R. Szpunar, L. Wang, M.A. Rodriguez, R. Long, **J. Xiao**, M.L. Dunn, and J.S. Bunch, Observation of Pull-in Instability in Graphene Membranes under Interfacial Forces, *Nano Letters* (accepted)
- [J35] C. Lü, M. Li, **J. Xiao**^{*}, I. Jung, J. Wu, Y. Huang, K.-C. Hwang, and J.A. Rogers, Mechanics of tunable hemispherical electronic eye camera systems that combine rigid device elements with soft elastomers, *Journal of Applied Mechanics-Transactions of the ASME* (accepted)
- [J34] X. Meng, M. Li^{*}, Z. Kang, X. Zhang, **J. Xiao**^{*}, Mechanics of Self-Folding of Single-layer Graphene, *J. Phys. D: Appl. Phys.* 46, 055308 (2013)
- [J33] Y. Wang, J. Song, **J. Xiao**^{*}, Surface effects on in-plane buckling of nanowires on elastomeric substrates, *J. Phys. D: Appl. Phys.* 46, 125309 (2013)
- [J32] W. Pan, **J. Xiao**^{*}, J. Zhu, C. Yu, G. Zhang, Z. Ni, K. Watanabe, T. Taniguchi, Y. Shi^{*}, and X. Wang^{*}, Biaxial Compressive Strain Engineering in Graphene/Boron Nitride Heterostructures, *Scientific Reports* 2, 893 (2012)

- [J31] T. Song, H. Cheng, H. Choi, J.-H. Lee, H. Han, D.H. Lee, D.S. Yoo, M.-S. Kwon, J.-M. Choi, S.G Doo, H. Chang, **J. Xiao**, Y. Huang, W.I. Park, Y.-C. Chung, H. Kim, J.A. Rogers, U. Paik, Si/Ge Double-Layered Nanotube Array as a Lithium Ion Battery Anode, *ACS Nano* 6, 303-309 (2012)
- [J30] J. Viventi, D.-H. Kim, L. Vigeland, E. S. Frechette, J. A. Blanco, Y.-S. Kim, A. E. Avrin, V. R. Tiruvadi, S.-W. Hwang, A. C. Vanleer, D. F. Wulsin, K. Davis, C. E. Gelber, L. Palmer, J. Van der Spiegel, J. Wu, **J. Xiao**, Y. Huang, D. Contreras, J. A. Rogers, and B. Litt, Flexible, Foldable, Actively Multiplexed, High-Density Electrode Array for Mapping Brain Activity in vivo, *Nature Neuroscience* 14, 1599–1605 (2011)
 -----Reported by *MIT Technology Review*, *Science Daily*, *NIH News*, *LiveScience*, *eEurekAlert*, *SmartPlanet*, *Manila Bulletin (PH)* ...
- [J29] I. Jung, **J. Xiao**, V. Malyarchuk, C. Lu, M. Li, Z. Liu, J. Yoon, Y. Huang, and J. A. Rogers, Dynamically tunable hemispherical electronic eye camera system with adjustable zoom capability, *Proc. Natl. Acad. Sci. USA* 108, 1788-1793 (2011)
 ----- This paper is on the cover of February 1st, 2011 issue of PNAS.
 -----Reported by *US News and World Report*, *UPI*, *Discovery*, *MIT Technology Review*, *MSNBC*, *National Academy of Engineering website*, *National Science Foundation*, *Homeland Security Newswire*, *Daily India*, *DP Review*, *ECN magazine*, *eEurekAlert*, *Expert Reviews (UK)*, *GizMag*, *Materials Research Society*, *Medical News*, *New Scientist*, *PhysOrg*, *R&D magazine*, *Red Orbit*, *Science Centric*, *Science Daily*, ...
- [J28] M. Li⁺, **J. Xiao**⁺, J. Wu, R.-H. Kim, Z. Kang, Y. Huang, and J. A. Rogers, Mechanics analysis of two-dimensionally prestrained elastomeric thin film for stretchable electronics, *Acta Mechanica Solida Sinica* 23, 592-599 (2010)
 -----⁺*These authors contributed equally to this work.*
- [J27] S. Wang, **J. Xiao**, J. Song, H. C. Ko, K.-C. Hwang, Y. Huang, and J. A. Rogers, Mechanics of curvilinear electronics, *Soft Matter* 6, 5757–5763 (2010)
- [J26] R.-H. Kim, D.-H. Kim, **J. Xiao**, B. H. Kim, S.-I. Park, B. Panilaitis, R. Ghaffari, J. Yao, M. Li, Z. Liu, V. Malyarchuk, D. G. Kim, A.-P. Le, R. G. Nuzzo, D. L. Kaplan, F. G. Omenetto, Y. Huang, Z. Kang, and J. A. Rogers, Waterproof AlInGaP optoelectronics on stretchable substrates with applications in biomedicine and robotics, *Nature Materials* 9, 929-937 (2010)
 ----- This paper is a feature article reported by the Nature website on 10/17/2010 [Published online <http://www.nature.com/news/2010/101017/full/news.2010.545.html> (Nature News)].
 ----- Reported by *ABC*, *MSNBC*, *Yahoo*, *MIT Technology Review*, *Scientific American*, *Physics World*, *Chemistry World*, *PhysOrg*, *Popular Science*, *Tech News Daily*, *Discover Magazine*, *Europa Press (Spain)*, *Golem (Germany)*, ...
- [J25] D.-H. Kim, J. Viventi, J. J. Amsden, **J. Xiao**, L. Vigeland, Y.-S. Kim, J. A. Blanco, B. Panilaitis, E.S. Frechette, D. Contreras, D. L. Kaplan, F. G. Omenetto, Y. Huang, K.-C. Hwang, M. R. Zakin, B. Litt, J. A. Rogers, Dissolvable Films of Silk Fibroin for Ultrathin Conformal Bio-Integrated Electronics, *Nature Materials* 9, 511-517 (2010)
 ----- This paper is on the cover of June, 2010 issue of *Nature Materials*, and is highlighted in the 22 April 2010 issue of *Nature*.

-----Reported by ABC, UPI, Reuters, Yahoo, MSNBC, Fox news, Nature, National Institute of Health, China daily, MIT technology review, The Times of India, Mumbai Mirror (India), PhysOrg, Popular Science, R&D magazine, RedOrbit, Science Daily, ...

- [J24] J. Zhang, **J. Xiao**, X. Meng, C. Monroe, Y. Huang, and J.-M. Zuo, Free Folding of Suspended Graphene Sheets by Random Mechanical Stimulation, *Physical Review Letters* 104, 166805 (2010)
- [J23] D.-H. Kim, **J. Xiao**, J. Song, Y. Huang and J. A. Rogers, Stretchable, Curvilinear Electronics Based On Inorganic Materials, *Advanced Materials* 22, 2108–2124 (2010)
- [J22] T. Song, **J. Xia**, J.-H. Lee, D. H. Lee, M.-S. Kwon, J.-M. Choi, J. Wu, S. K. Doo, H. Chang, W. I. Park, D. S. Zang, H. Kim, Y. Huang, K.-C. Hwang, J. A. Rogers and U. Paik, Arrays of Sealed Silicon Nanotubes as Anodes for Lithium Ion Batteries, *Nano Letters* 10, 1710–1716 (2010)
- [J21] J. Viventi, D.-H. Kim, J. D. Moss, Y.-S. Kim, J.A. Blanco, N. Annetta, A. Hicks, **J. Xiao**, Y. Huang, D.J. Callans, J. A. Rogers, and B. Litt, A Conformal, Bio-interfaced Class of Silicon Electronics for Mapping Cardiac Electrophysiology, *Science Translational Medicine* 2, 24ra22 (2010).
----- This paper is on the cover of March 24, 2010 issue of *Science Translational Medicine*.
-----Reported by UPI, Science Daily, MIT Technology review, BusinessWeek, Yahoo, MSN, RedOrbit, HealthDay, Daily India, PhysOrg, Popular Science, R&D Magazine, ...
- [J20] A. J. Baca, K. J. Yu, **J. Xiao**, S. Wang, J. Yoon, J. H. Ryu, D. Stevenson, R. G. Nuzzo, A. A. Rockett, Y. Huang, and J. A. Rogers, Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs, *Energy & Environmental Science* 3, 208-211 (2010)
----- This paper is on the cover of February, 2010 issue of *Energy & Environmental Science*.
- [J19] Z. Shi, X. Feng, Y. Huang, **J. Xiao**, and K.C. Hwang, The equivalent axisymmetric model for Berkovich indenters in power-law hardening materials, *International Journal of Plasticity* 26, 141-148 (2010).
- [J18] **J. Xiao**, A. Carlson, Z.J. Liu, Y. Huang, and J.A. Rogers, Analytical and Experimental Studies of the Mechanics of Deformation in a Solid with a Wavy Surface Profile. *Journal of Applied Mechanics-Transactions of the ASME* 77, 011003 (2010).
- [J17] **J. Xiao**, S.Y. Ryu, Y. Huang, K.-C. Hwang, U. Paik and J.A. Rogers, Mechanics of nanowire/nanotube in-surface buckling on elastomeric substrates, *Nanotechnology* 21, 085708 (2010).
- [J16] **J. Xiao**, S. Dunham, P. Liu, Y. Zhang, C. Kocabas, L. Moh, Y. Huang, K.-C. Hwang, C. Lu, W. Huang and J. A. Rogers, Alignment controlled growth of single-walled carbon nanotubes on quartz substrates, *Nano Letters* 9, 4311-4319 (2009).
- [J15] S. Wang, **J. Xiao**, I. Jung, J. Song, H. C. Ko, M. P. Stoykovich, Y. Huang, K.-C. Hwang and J. A. Rogers, Mechanics of Hemispherical Electronics, *Appl. Phys. Lett.* 95, 181912 (2009).
----- Selected by the Editors as one of the most notable papers in recent years, for highlight in the 50th anniversary edition of the journal.

- [J14] S.Y. Ryu, **J. Xiao**, W.I. Park, K.S. Son, Y.Y. Huang, U. Paik, and J.A. Rogers, Lateral Buckling Mechanics in Silicon Nanowires on Elastomeric Substrates, *Nano Letters* 9, 3214-3219 (2009).
- [J13] J. Song, Y. Huang, **J. Xiao**, S. Wang, K.C. Hwang, H.C. Ko, D.H. Kim, M.P. Stoykovich, and J.A. Rogers, Mechanics of noncoplanar mesh design for stretchable electronic circuits, *Journal of Applied Physics* 105, 123516 (2009).
- [J12] W.B. Lu, B. Liu, J. Wu, **J. Xiao**, K.C. Hwang, S. Fu, and Y. Huang, Continuum modeling of van der Waals interactions between carbon nanotube walls, *Appl. Phys. Lett.* 94, 101917 (2009).
- [J11] J. Qin, S. Qu, X. Feng, Y. Huang, **J. Xiao**, and K.C. Hwang, A Numerical Study of Indentation with Small Spherical Indenters. *Acta Mechanica Solida Sinica* 22, 18-26 (2009).
- [J10] J. Qin, Y. Huang, **J. Xiao**, and K. C. Hwang, The Equivalence of Axisymmetric Indentation Model for Three-Dimensional Indentation Hardness. *Journal of Materials Research* 24, 776-783 (2009).
- [J9] J. Yoon, A. J. Baca, S.-I. Park, P. Elvikis, J. B. Geddes, L. Li, R. H. Kim, **J. Xiao**, S. Wang, T. H. Kim, M. J. Motala, B. Y. Ahn, E. B. Duoss, J. A. Lewis, R. G. Nuzzo, P. M. Ferreira, Y. Y. Huang, A. Rockett, and J. A. Rogers, Ultrathin silicon solar microcells for semitransparent, mechanically flexible and microconcentrator module designs. *Nat. Mater.* 7, 907-915 (2008).
 ----- This paper is a feature article reported by the Nature website on 10/9/2008 [Published online <http://www.nature.com/nature/journal/v455/n7214/full/455744a.html> (Nature News)], and is on the cover of November, 2008 issue of Nature Materials.
 ----- Reported by ABC, Reuters (UK), The New York Times, Scientific American, MSNBC, China Daily (China), Xinhua (China), Daily Mail (UK), IT News, MIT Technology Review, Physics World, RedOrbit, The Independent Online, Indiatimes (India), The Straits Times (Singapore),...
- [J8] **J. Xiao**, A. Carlson, Z.J. Liu, Y. Huang, H. Jiang, and J.A. Rogers, Stretchable and Compressible Thin Films of Stiff Materials on Compliant Wavy Substrates. *Appl. Phys. Lett.* 93, 013109 (2008)
- [J7] **J. Xiao**, H. Jiang, D.-Y. Khang, J. Wu, Y. Huang, and J.A. Rogers, Mechanics of buckled carbon nanotubes on elastomeric substrates. *J. Appl. Phys.* 104, 033543 (2008).
- [J6] H. Jiang, D.-Y. Khang, H. Fei, H. Kim, Y. Huang, **J. Xiao**, and J. A. Rogers, Finite Width Effect of Thin-Films Buckling on Compliant Substrate: Experimental and Theoretical Studies. *J. Mech. Phys. Solids* 56, 2585-2598 (2008).
- [J5] J.-H. Ahn, Z. Zhu, S.-I. Park, **J. Xiao**, Y. Huang, and J. A. Rogers, Defect tolerance and nanomechanics in transistors that use semiconductor nanomaterials and ultrathin dielectrics. *Adv. Funct. Mater.* 18, 2535-2540 (2008).
 ----- This paper is on the cover of September 10, 2008 issue of Adv. Funct. Mater.
- [J4] H. C. Ko, M. P. Stoykovich, J. Song, V. Malyarchuk, W. M. Choi, C.-J. Yu, J. B. Geddes, **J. Xiao**, S. Wang, Y. Huang, and J. A. Rogers, A Hemispherical Electronic Eye Camera Based on Compressible Silicon Optoelectronics. *Nature* 454, 748-753 (2008).
 ----- This paper is a feature article reported by the Nature website on 8/6/2008 [Published online <http://www.nature.com/news/2008/080806/full/news.2008.1004.html> (Nature News)], and is on the cover of August 8, 2008 issue of Nature.

----- Reported by ABC, BBC (UK), CBC (Canada), AFP (France), Reuters (UK), United Press International, Chicago Tribune, Discovery, MIT Technology Review, Scientific American, US News and World Report, Xinhua (China), New Scientist, Physics Today, Science Daily, Telegraph (UK), MSNBC, Nature News & Views,...

- [J3] D.-Y. Khang, **J. Xiao**, C. Kocabas, S. Maclaren, T. Banks, H. Jiang, Y. Y. Huang, and J. A. Rogers, Molecular Scale Buckling Mechanics on Individual Aligned Single-Wall Carbon Nanotubes on Elastomeric Substrates. *Nano Lett.* 8, 124-130 (2008).
- [J2] **J. Xiao**, B. Liu, Y. Huang, J. Zuo, K.-C. Hwang, and M.-F. Yu, Collapse and Stability of Single- and Multi-wall Carbon Nanotubes. *Nanotechnology* 18, 395703 (2007).
- [J1] **Xiao JL**, Liu B, Huang YG, Hwang KC, and Yu MF, Stability and chirality effect on twist formation of collapsed double wall carbon nanotubes. *Trans. Nonferrous Met. Soc. China* 16, S776-S779 (2006). DOI: 10.1016/S1003-6326(06)60299-9

INVITED PRESENTATIONS

- [I13] School of Aeronautics and Astronautics, Zhejiang University, August, 2012
- [I12] Department of Engineering Mechanics, Tsinghua University, November, 2011
- [I11] School of Aeronautic Science and Engineering, Beihang University, November, 2011
- [I10] *OEQS Seminar*, Department of Electrical, Computer, and Energy Engineering, University of Colorado Boulder, October, 2011.
- [I9] *Mechanical Engineering Seminar*, Department of Mechanical Engineering, University of Colorado Boulder, September, 2011.
- [I8] Department of Mechanical Engineering, Temple University, March, 2011
- [I7] Department of Industrial Engineering, University of Pittsburgh, February, 2011.
- [I6] Department of Mechanical Engineering, University of Texas at Dallas, February, 2011.
- [I5] Department of Mechanical Engineering, University of Colorado Boulder, February, 2011.
- [I4] Department of Mechanical Engineering, Carnegie Mellon University, January, 2011.
- [I3] Department of Civil and Environmental Engineering, University of Southern California, January, 2011.
- [I2] *iOptics Seminar*, University of Illinois at Urbana-Champaign, October 18, 2010.
- [I1] *Nanoelectronics and Photonics Seminar*, University of Illinois at Urbana-Champaign, March 29, 2010.

CONFERENCE PRESENTATIONS

- [C18] J. Xiao, I. Jung, Y. Huang, J. Rogers, Mechanics of dynamically tunable electronic eye camera, *The ASME International Mechanical Engineering Congress & Exposition 2012*, Nov 9-15, 2012, Houston, Texas

- [C17] J. Xiao, Y. Zhang, Y. Huang, J. Rogers, Alignment Controlled Growth of Single-Walled Carbon Nanotubes on Quartz Substrates, *The ASME International Mechanical Engineering Congress & Exposition 2012*, Nov 9-15, 2012, Houston, Texas
- [C16] J. Xiao, Y. Huang, J. Rogers, U. Paik, and H. Jiang, Buckling mechanics of one-dimensional nanomaterials on elastomeric substrates, *The ASME International Mechanical Engineering Congress & Exposition 2012*, Nov 9-15, 2012, Houston, Texas
- [C15] J. Xiao, C. Lu, Z. Liu, I. Jung, Y. Huang, and J. A. Rogers, Mechanics of dynamically tunable electronic eye camera, *49th Annual Technical Conference of Society of Engineering Sciences*, October 10-12, 2012, Georgia Tech, Atlanta, GA
- [C14] J. Xiao, S. Y. Ryu, Y. Huang, K.-C. Hwang, U. Paik, J. A. Rogers, Mechanics of nanowire/nanotube in-surface buckling on elastomeric substrates, *The 23rd International Congress of Theoretical and Applied Mechanics*, August 19 -24, 2012, Beijing, China
- [C13] J. Xiao, S. Dunham, P. Liu, Y. Zhang, Y. Huang, and J. A. Rogers, Alignment Controlled Growth of Single Walled Carbon Nanotubes on Quartz, 2012 MRS Spring Meeting & Exhibit, April 9-13, 2012, San Francisco, CA
- [C12] J. Xiao, Y. Huang, J. A. Rogers, Buckling mechanics of one-dimensional nanomaterials on elastomeric substrates, *48th Annual Technical Conference of Society of Engineering Sciences*, October 12-14, 2011, Northwestern University, Evanston, IL
- [C11] Y. Huang, J. Xiao, J. A. Rogers, Alignment Controlled Growth of Single-Walled Carbon Nanotubes on Quartz Substrates, *48th Annual Technical Conference of Society of Engineering Sciences*, October 12-14, 2011, Northwestern University, Evanston, IL
- [C10] J. Xiao, S. Dunham, P. Liu, Y. Zhang, C. Kocabas, L. Moh, Y. Huang, K.-C. Hwang, C. Lu, W. Huang and J. A. Rogers, Alignment of single-wall carbon nanotubes grown on quartz. *The ASME International Mechanical Engineering Congress & Exposition 2009*, Nov 13-19, 2009, Lake Buena Vista, Florida.
- [C9] J. Xiao, S.Y. Ryu, Y. Huang, K.-C. Hwang, U. Paik and J.A. Rogers, Mechanics of In-surface Buckling of Silicon Nanowires on Elastomeric Substrates. *The ASME International Mechanical Engineering Congress & Exposition 2009*, Nov 13-19, 2009, Lake Buena Vista, Florida.
- [C8] J. Xiao, A. Carlson, Z.J. Liu, Y. Huang, H. Jiang, and J.A. Rogers, Stretchable and Compressible Thin Films of Stiff Materials on Compliant Wavy Substrates. *The ASME International Mechanical Engineering Congress & Exposition 2009*, Nov 13-19, 2009, Lake Buena Vista, Florida.
- [C7] J. Xiao, B. Liu, Y. Huang, J. Zuo, K.-C. Hwang, and M.-F. Yu, Collapse and Stability of Single- and Multi-wall Carbon Nanotubes. *The ASME International Mechanical Engineering Congress & Exposition 2009*, Nov 13-19, 2009, Lake Buena Vista, Florida.
- [C6] J. Xiao, Y. Huang, J. A. Rogers, and H. Jiang, Stretchable nanoelectronics with applications in biomedical devices (poster). *The Humboldt Kolleg, Nano-Bio: The Next Transformative Convergence*, Oct 14-15, 2009, Roanoke, Virginia.
- [C5] J. Xiao, H. Jiang, D.-Y. Khang, J. Wu, Y. Huang, and J.A. Rogers, Mechanics of buckled carbon nanotubes on elastomeric substrates. *The ASME International Mechanical Engineering Congress & Exposition 2008*, Oct 31-Nov 6, 2008, Boston, Massachusetts.

- [C4] J. Xiao, J. Qin, Y. Huang, and K. C. Hwang, The Equivalence of Axisymmetric Indentation Model for Three-Dimensional Indentation Hardness. *The ASME International Mechanical Engineering Congress & Exposition 2008*, Oct 31-Nov 6, 2008, Boston, Massachusetts.
- [C3] J. Xiao, H. Jiang, D.-Y. Khang, Y. Y. Huang, and J. A. Rogers, Molecular Scale Buckling Mechanics in Aligned Single-Wall Carbon Nanotubes on Elastomeric Substrates. *The 8th International Conference on Fundamentals of Fracture*, Jan 3-7, 2008, Hong Kong.
- [C2] J. Xiao, Y. Huang, and G. Paulino, Mechanism-Based Cohesive Failure Model for Functionally Graded Aircraft Components and Structures. *Air Force Research Laboratory-University of Illinois Technical Interchange Meeting*, Aug 27-29, 2007, Urbana, Illinois.
- [C1] Xiao JL, Liu B, Huang Y, Hwang KC, and Yu MF, Stability and charality effect on twist formation of collapsed double wall carbon nanotubes. *The 5th International Forum on Advanced Material Science and Technology*, Jun 11-14, 2006, Xiangtan, Hunan, China.

CONTRIBUTED PROCEEDINGS & ABSTRACTS

- [A8] C. Lu, J. Xiao, Y. Huang, and J. A. Rogers, Operation mechanism for tunable hemispherical eyeball cameras, *The 23rd International Congress of Theoretical and Applied Mechanics*, August 19 -24, 2012, Beijing, China
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