

## **Xiaoyun Ding, Ph.D.**

Assistant Professor

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### **EMPLOYMENT**

01/2017 – Present **Assistant Professor, University of Colorado Boulder, CO**  
Department of Mechanical Engineering

### **EDUCATION and TRAINING**

09/2013 – 12/2016 **Postdoctoral Associate, Massachusetts Institute of Technology, MA**  
Department of Chemical Engineering

David Koch Institute for Integrative Cancer Research  
Advisors: Prof. Klavs Jensen and Prof. Robert Langer

08/2009 – 08/2013 **Ph.D., The Pennsylvania State University, PA**  
Department of Engineering Science and Mechanics

08/2006 – 07/2009 **M.E., Chinese Academy of Sciences, P.R. China**  
Microelectronic Engineering

09/2002 – 07/2006 **B.S., Fudan University, P.R. China**  
Department of Material Physics,

### **RESEARCH CONTRIBUTION and INTERESTS**

We are conducting interdisciplinary research at the frontiers of Biomedicine, Microfluidics, Acoustics, Drug delivery, electronics, and Micro/Nano Engineering. Our research focuses on developing novel microfluidic systems for cell studies. So far, we have innovated (1) an acoustic tweezer microfluidic platform for on-chip manipulation of nanoparticles, cells and *C. elegans*; and (2) a hybrid microfluidic system for high throughput DNA nuclear delivery and rapid expression. Those two platform can benefit various fields from fundamental research, cell-based therapeutics to regenerative medicine and many other biomedical applications. Due to its significance, my work has been published in more than 23 top-ranked journals (such as *Nature*, *Nature Biomedical Engineering*, *PNAS*, *Science Advances*, *Lab on a Chip*, *Advanced Materials*, *ACS Nano*, *Analytical Chemistry*), and highlighted by more than 100 media reports.

Our research group in CU Boulder centers on cutting-edge micro/nano technologies/devices for cell based biomedical applications, including cell membrane disruption and repair, cell mechanics, precise intracellular delivery for immunotherapy and gene editing, manipulation of cells and *C. elegans*. Potential impact includes point-of-care disease diagnostics and medical therapeutics. We actively collaborate with groups in biology and medicine whose expertise are in immunology, cell mechanics, drug delivery and cellular biology studies.

### **SELECTED AWARDS and HONORS**

2020 Lab Venture Challenge 2020 winner, Colorado.

2020 Biomaterials Science Emerging Investigators 2021

2019 W. M. Keck Foundation Medical Research Grant Award

2019 CCTSI Novel Method Development Pilot Awards, University of Colorado Boulder

2013 Rustum and Della Roy Innovation in Materials Research Award, The Pennsylvania State University

2013 Inventor Incentive Award, The Pennsylvania State University

- 2013 Journal of Laboratory Automation Ten Breakthroughs in Innovation Award (JALA Ten 2013)
- 2012 Student Paper Competition Award, IEEE International Ultrasonics Symposium, Dresden, Germany (7 out of ~1200, the most prestigious student award in the field)
- 2012 Student Travel Award, IEEE International Ultrasonics Symposium, Dresden, Germany
- 2012 The Baxter Young Investigator Award, Chicago, USA (6 awardees nationwide)
- 2012 First Place Award at Penn State ESM Today Graduate Research Symposium, The Pennsylvania State University
- 2011 Innovation Award at Penn State ESM Today Graduate Research Symposium, The Pennsylvania State University

## RESEARCH INTERESTS

- Micro/nano fluidics, Biomedical devices, Micro/nano fabrication, Lab on a Chip;
- Intracellular delivery and mass transfer, intracellular and subcellular drug delivery, immunotherapy, gene delivery, cell membrane disruption and repair, cell physics and engineering;

## SEMINAR AND PRESENTATION

- 07/2020 **Invited Talk**, MINE2020 Young Scientists forum (online), Microsystem & Nanoengineering Summit, Nature publishing group.
- 11/2017 **Invited Talk**, Mechanical Engineering, Colorado State University, CO
- 10/2017 **Invited Talk**, Skaggs School of Pharmacy and Pharmaceutical Science, University of Colorado Denver, CO
- 12/2017 **Invited Talk**, 2<sup>nd</sup> world Congress on Electroporation, Norfolk, VA
- 12/2017 **Invited Talk**, Acoustic Society of America, New Orleans, LA
- 12/2016 **Seminar Talk**, David Koch Institute for Integrative Cancer Research, MIT, Cambridge
- 02/2016 **Invited Talk**, Department of Mechanical engineering, CU Boulder, CO
- 08/2015 **Seminar Talk**, Institute of Microelectronics, Peking University, Beijing, China
- 04/2015 **Invited Talk**, Department of Mechanical Engineering, University of Alberta, Canada
- 10/2014 **Guest Lecturer**, PBS NOVA Science Cafe, Cambridge, MA
- 07/2013 **Invited Talk**, Department of Chemical Engineering, MIT, MA
- 06/2013 **Invited Talk**, Broad Institute of MIT and Harvard, MA
- 11/2012 **Guest Lecturer**, Millennium Cafe, Material Research Institute, The Pennsylvania State University
- 10/2012 **Invited Talk**, IEEE International Ultrasonics Symposium, Dresden, Germany
- 10/2012 **Oral Presentation (2)**, IEEE International Ultrasonics Symposium, Dresden, Germany
- 11/2012 **Oral Presentation**, MicroTAS2012, Okinawa, Japan
- 09/2012 **Invited Talk**, The Baxter Young Investigator Awards Ceremony, Chicago, USA

## PROFESSIONAL and ACADEMIC SERVICE

- Member of Institute of Electrical and Electronics Engineers (IEEE), Ultrasonics, Ferroelectrics and Frequency Control Society (UFFC), Biomedical Engineering Society (BMES), Acoustic society of America (ASA)
- Serve in scientific program committee and organize conference sessions for the 3rd world congress on electroporation and pulsed electric fields.
- Referee for scientific journals such as *Nature Nanotechnology*, *Science Advances*, *Lab on a Chip*, *Analyst*, *Journal of Micromechanics and Microengineering*, *JASA*, *Micromachines*, *Sensors*, *Scientific Reports*, *RSC Advances*, *Physics Letter A*, *Journal of Physics D*, *Microelectronics Reliability*, etc.
- Serve three times in NSF panel review at programs of engineering for biomedical science and microfluidics & nanofluidics.
- Serve in graduate committee, search committee of CU boulder and mentor/comentor 4 PhD students.

**JOURNAL PUBLICATION** (Underline: supervised students/postdoc; Google citation >3000)

1. Yu Gao, Apresio K Fajrial, Tao Yang, **Xiaoyun Ding**. Emerging On-chip Surface Acoustic Wave Technology for Small Biomaterials Manipulation and Characterization, *Biomaterials Science*, 2020. (cover story, [doi.org/10.1039/D0BM01269F](https://doi.org/10.1039/D0BM01269F))
2. Apresio K. Fajrial, Kun Liu, Yu Gao, Junhao Gu, Richard Lakerveld, and **Xiaoyun Ding**. Characterization of single-cell osmotic swelling dynamics for new physical biomarkers, *Analytical Chemistry*, 2020. (cover story, [doi.org/10.1021/acs.analchem.0c02289](https://doi.org/10.1021/acs.analchem.0c02289))
3. Yonghui Ding, Kerri A. Ball, Kristofor J. Webb, Yu Gao, Angelo D'Alessandro, William M. Old, Michael H.B. Stowell, **Xiaoyun Ding**. On-chip Acousto Thermal Shift Assay for Rapid and Sensitive Assessment of Protein Thermodynamic Stability, *Small*, 2003506, 2020. (**Front Cover Story**)
4. Apresio Kefin Fajrial, Qing Qing He, Nurul I. Wirusanti, Jill Slansky, and **Xiaoyun Ding**. A review of emerging physical transfection methods for CRISPR/Cas9-mediated gene editing. *Theranostics*, 10(12):5532-5549. (2020) doi:10.7150/thno.43465.
5. Gazendra Shakya, Samuel E. Hoff, Shiyi Wang, Hendrik Heinz, **Xiaoyun Ding** and Mark A. Borden. Vaporizable endoskeletal droplets via tunable interfacial melting transitions. *Science Advances* 6.14 (2020): eaaz7188.
6. Yonghui Ding, Richard Johnson, Sadhana Sharma, **Xiaoyun Ding**, Stephanie J. Bryant, and Wei Tan. "Tethering transforming growth factor  $\beta$ 1 to soft hydrogels guides vascular smooth muscle commitment from human mesenchymal stem cells." *Acta Biomaterialia*, 105, 68-77, (2020).
7. Apresio Fajrial, **Xiaoyun Ding**. Advanced Nanostructures for Cell Membrane Poration. *Nanotechnology*, 30, 264002, (2019)
8. Michael Miles, Biddut Bhattacharjee, Nakul Sridhar, Apresio Kefin Fajrial, Kerri Ball, Yung Cheng Lee, Michael HB Stowell, William M. Old, and **Xiaoyun Ding**. Flattening of Diluted Species Profile via Passive Geometry in a Microfluidic Device. *Micromachines* 10, no. 12 (2019): 839.
9. **Xiaoyun Ding**, Martin Stewart, Armon Sharei, James Weaver, Robert Langer, and Klavs Jensen, High-throughput nuclear delivery and rapid expression of DNA via mechanical and electrical cell-membrane disruption. *Nature Biomedical Engineering*, 1, 0039 (2017)
10. Martin P Stewart, Armon Sharei, **Xiaoyun Ding**, Gaurav Sahay, Robert Langer, Klavs F Jensen, In vitro and ex vivo strategies for intracellular delivery. *Nature* 538 (7624), 183-192 (2016)
11. **Xiaoyun Ding**, Zhangli Peng, Sz-Chin Steven Lin, Michela Geri, Sixing Li, Peng Li, Yuchao Chen, Ming Dao, Subra Suresh, and Tony Jun Huang, Cell separation using tilted-angle standing surface acoustic waves, *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 111, 12992-12997 (2014).
  - Highlighted by [MIT Home Page](#) 08/26/2014.
  - Reported by [NSF](#). [Carnegie Mellon News](#). [Daily News](#). [Breast Cancer News Today](#). [Headlines and Global News](#). [The Daily Dot](#). [Medical News Today](#). [Science 2.0](#). [e-Science News](#). [Laboratory Equipment](#). [R&D](#). [Phys Org](#). [Gizmag](#). [Quantum Times](#). [Nanowerk](#). [Science Daily](#). [Daily News](#). [Technobahn](#). [Open Nano](#). [Jersey Tribune](#). [Penn State News](#) etc.
12. Sixing Li, **Xiaoyun Ding**, Zhangming Mao, Yuchao Chen, Nitesh Nama, Feng Guo, Peng Li, Lin Wang, Craig E. Cameron and Tony Jun Huang, Standing surface acoustic wave (SSAW)-based cell washing, *Lab on a Chip*, 15, 331-338 (2015).
13. Sixing Li, Feng Guo, Yuchao Chen, **Xiaoyun Ding**, Peng Li, Lin Wang, Craig E Cameron, Tony Jun Huang, Standing Surface Acoustic Wave Based Cell Coculture, *Analytical Chemistry*, 86, 9853-9859 (2014).
14. Yuchao Chen, Sixing Li, Yeyi Gu, Peng Li, **Xiaoyun Ding**, Lin Wang, J Philip McCoy, Stewart J Levine, Tony Jun Huang, Continuous enrichment of low-abundance cell samples using standing surface acoustic waves (SSAW), *Lab on a Chip*, 14, 924-930 (2014).



15. **Xiaoyun Ding**, Peng Li, Sz-Chin Steven Lin, Zackary S. Stratton, Nitesh Nama, Feng Guo, Daniel Slotcavage, Xiaole Mao, Francesco Costanzo, and Tony Jun Huang, Surface acoustic wave (SAW) microfluidics, *Lab on a Chip*, 13, 3626-3649 (2013).
16. Chung Yu Chan, Po-Hsun Huang, Feng Guo, **Xiaoyun Ding**, Vivek Kapur, John D. Mai, Po Ki Yuen, and Tony Jun Huang, Accelerating drug discovery via organs-on-chips, *Lab on a Chip*, 13, 4697-4710 (2013).
17. Sixing Li, **Xiaoyun Ding**, Feng Guo, Yuchao Chen, Michael Ian Lapsley, Sz-Chin Steven Lin, and Tony Jun Huang, "Microfluidic Droplet Sorting via Standing Surface Acoustic Wave", *Analytical Chemistry*, 85, 5468-5474 (2013).
18. Yuchao Chen, **Xiaoyun Ding**, Sz-Chin Steven Lin, and Tony Jun Huang, Tunable Nanowire Patterning Using Standing Surface Acoustic Waves (SSAW), *ACS Nano*, 7, 3306-3314 (2013).
19. **Xiaoyun Ding**, Sz-Chin Steven Lin, Brian Kiraly, Hongjun Yue, Sixing Li, Jinjie Shi, Stephen J. Benkovic, and Tony Jun Huang, On-Chip Manipulation of Single Microparticles, Cells, and Organisms Using Surface Acoustic Waves, *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 109, 11105-11109 (2012).
- Highlighted by [Nature Methods](#) (Vivien Marx, "Moved by sound", *Nature Methods* 9, 867 (2012)), *Lab on a chip*, [JALA Ten Breakthroughs in innovation 2013](#), [NSF](#), [NIH](#), and [Faculty 1000](#).
  - Reported by [Live Science](#), [Big Ten Science](#), [Lab Spaces](#), [One News Page](#), [gantdaily](#), [MSNBC](#), [R&D](#), [Medical News Today](#), [Nanowerk](#), [Science Daily](#), [Popular Science](#), [Online Journal](#), [Newswise](#), [domain-b](#), [Bio-Medicine](#), [Penn State Live](#), [Penn State Science](#), [Real Clear Science](#), [Sci Tech Update](#), [Phys Org](#), [UPI.com](#), [Softpedia ALN Magazine](#), [SciTechDaily](#), [Futurity](#), [DVICE](#), [Inside Science](#), etc. [Google scholar citation: 450](#)
20. **Xiaoyun Ding**, Sz-Chin Steven Lin, Michael Ian Lapsley, Sixing Li, Xiang Guo, Chung Yu Chan, I-Kao Chiang, J. Philip McCoy, and Tony Jun Huang, Standing surface acoustic wave (SSAW) based Lab on a Chip multichannel cell sorting, *Lab on a Chip*, 12, 4228-4231 (2012).
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  - **Cover image**, The most read articles from *Lab on a Chip* in September 2012. Highlighted by [NSF](#), [Human Health & Science](#), [Quantum Times](#), [Futurity](#), [SIP TRUNKING](#), [DeviceSpace](#), [EurekaAlert](#), [UPI](#), [e-Science News](#), [LabSpaces](#), [Health Canal](#), [TG Daily](#), [Gizmag](#), [PhysOrg](#), [Product Design and Development](#), [Science Daily](#), [Laboratory Equipment](#), [Azonano](#), [The Engineer](#), [R&D](#), [Penn State News](#), etc.)
21. **Xiaoyun Ding**, Jinjie Shi, Sz-Chin Steven Lin, Shahrzad Yazdi, Brian Kiraly, and Tony Jun Huang, Tunable Patterning of Microparticles and Cells using Standing Surface Acoustic Waves, *Lab on a Chip*, 12, 2491-2497 (2012). (**Cover image**)
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22. Yan Jun Liu, Mengqian Lu, **Xiaoyun Ding**, Eunice S. P. Leong, Sz-Chin Steven Lin, Jinjie Shi, Jing Hua Teng, Lin Wang, Timothy J. Bunning, and Tony Jun Huang, Holographically Formed, Acoustically Switchable Gratings based on Polymer-Dispersed Liquid Crystals, *Journal of Laboratory Automation*, 18, 291-295 (2012).
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23. Jiajie Tang, **Xiaoyun Ding**, Fei Geng, Xiaowei Sun, Le Luo, Wafer-level multilayer integration of RF passives with thick BCB/metal interlayer connection in silicon-based SiP, *Microsystem Technologies*, 18, 119-126 (2012).
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24. Yan Jun Liu, **Xiaoyun Ding**, Sz-Chin Steven Lin, Jinjie Shi, I-Kao Chiang, and Tony Jun Huang, Surface Acoustic Wave Driven Light Shutters Using Polymer-Dispersed Liquid Crystals, *Advanced Materials*, 23, 1656-1659 (2011). (**Cover image**)
25. Michael Ian Lapsley, I-Kao Chiang, Yue Bing Zheng, **Xiaoyun Ding**, Xiaole Mao, and Tony Jun Huang, A Single-Layer, Planar, Optofluidic Mach-Zehnder Interferometer for Label-Free Detection, *Lab on a Chip*, 11, 1795-1800 (2011).

26. Jinjie Shi, Shahrzad Yazdi, Sz-Chin Steven Lin, **Xiaoyun Ding**, I-Kao Chiang, Kendra Sharp, and Tony Jun Huang, Three-Dimensional Continuous Particle Focusing in a Microfluidic Channel via Standing Surface Acoustic Waves (SSAW), *Lab on a Chip*, 11, 2319-2324 (2011). (Cover image)
27. **Xiaoyun Ding**, Fei Geng, and Le Luo, Process development in metal/BCB multilayer interconnections of MMCM with embedded chip in Si substrate, *Microelectronic Engineering*, 86 (3), 335-339 (2009).
28. **Xiaoyun Ding**, Fei Geng, and Le Luo, Wideband vertical transitions for multilayer BCB-based MCM, *Microwave and Optical Technology Letters*, 51 (6), 1584-1587 (2009).
29. Fei Geng, **Xiaoyun Ding**, Gaowei Xu, and Le Luo, A wafer-scale packaging structure with monolithic microwave integrated circuits and passives embedded in a silicon substrate for multichip modules for radio frequency applications, *Journal of Micromechanics and Microengineering*, 19, 105011 (2009).
30. Fei Geng, **Xiaoyun Ding**, Gaowei Xu, and Luo Le, A wafer-level 3D packaging structure with Benzocyclobutene as a dielectric for multichip module fabrication, *Journal of Semiconductors*, 30, 106003 (2009).



## BOOK CHAPTER

1. **Xiaoyun Ding**, Peng Li, Sz-Chin Steven Lin, Zackary S. Stratton, Nitesh Nama, Feng Guo, Daniel Slotcavage, Xiaole Mao, Jinjie Shi, Francesco Costanzo, Thomas Franke, Achim Wixforth, and Tony Jun Huang, "Lab-on-a-chip Technologies Enabled by Surface Acoustic Waves", in *Microscale Acoustofluidics*, A. Lenshof, and T. Laurell, Royal Society of Chemistry Publisher, 2014, pp. 354-398.

## PATENTS

1. **Xiaoyun Ding**, Yonghui Ding, "Acousto-Thermal Shift Assay for Fast Label-Free Protein Analysis", (PCT/US2020)
2. Mark Borden, Gazendra Shakya, **Xiaoyun Ding**, "Micron sized droplets with solid endoskeleton or exoskeleton which tunes thermal stability of the liquid droplets", (PCT/US2020)
3. **Xiaoyun Ding**, Apresio Kefin Fajrial, "Precise Mechanical Disruption for Intracellular Delivery to Cells and Small Organisms", (Provisional Application No.: 62/849,420)
4. Martin Stewart, Robert Langer, Klavs Jensen, **Xiaoyun Ding**, "flow-through microfluidic device featuring membrane-perturbing surface interactions for intracellular delivery", (WO2017173373A1, 2017)
5. **Xiaoyun Ding**, Armon Sharei, Klavs Jensen, Robert Langer, "Microfluidics Drug Delivery platform for cell reprogramming", (U.S. US20180016539A1, 2018, EP, JP, CN, CA, WO)
6. Subra Suresh, Peng Li, Ming Dao, Yuchao Chen, **Xiaoyun Ding**, Tony Jun Huang, Zhangli Peng, "Separation of Low-abundance Cancer Cells From Fluid Using Surface Acoustic Waves", (U.S. US20170232439A1, 2017, WO)
7. **Xiaoyun Ding**, and Tony Jun Huang, "High efficiency Separation of Particles and Cells in Microfluidic Device using Surface Acoustic Wave", (US9606086B2, 2017, EP, JP, CN, WO)
8. **Xiaoyun Ding**, and Tony Jun Huang, "Microfluidic manipulation and Sorting of Particles Using Tunable Standing Surface Acoustic Wave", (U.S. US9608547B2, 2017, EP, JP, CN, WO)

## SELECTED INTERNATIONAL CONFERENCE PRESENTATIONS

1. Gazendra Shakya, Samuel Hoff, Shiyi Wang, Hendrik Heinz, **Xiaoyun Ding**, and Mark Borden, "Tuning vaporization thresholds of endoskeletal perfluorocarbon droplets" IEEE International Ultrasonics Symposium, Glasgow, Scotland, United Kingdom, 10/2019. (Oral Presentation)
2. Xin Xu, Apresio Fajrial, Benjamin Seelbinder, **Xiaoyun Ding**, Sarah Calve, and Corey Neu, "Probing the interplay of nuclear, cellular, and matrix mechanics within living tissues" 8th World Congress of Biomechanics, Dublin, Ireland, United Kingdom, 10/2018. (Oral Presentation)
3. **Xiaoyun Ding**, "Standing Surface Acoustic Wave Enabled Acoustofluidics for Bioparticle Manipulation" 174<sup>th</sup> meeting of the Acoustical Society of America, New Orleans, LA, USA, 12/2017.



**(Invited Talk)**

4. **Xiaoyun Ding**, Martin Stewart, Robert Langer, and Klavs Jensen, “Reversible Disruption of Nuclear Envelope via Mechanical and Electrical Pulse” 2<sup>nd</sup> World Congress on Electroporation, Norfolk, VA, USA, 09/2017. **(Invited Talk)**
5. **Xiaoyun Ding**, Martin Stewart, Armon Sharei, Robert Langer, and Klavs Jensen, “A Unique Microfluidic Technology Can Deliver DNA into Nucleus in High Throughput” BMES Conference, Tampa, USA, 2015. **(Oral Presentation)**
6. **Xiaoyun Ding**, and Tony Huang, “Acoustic tweezers: manipulating microparticles, cells, and organisms using standing surface acoustic waves (SSAW)” IEEE IUS Conference, Dresden, Germany, 2012. **(Invited Talk)**
7. **Xiaoyun Ding**, Sz-Chin Steven Lin, Sixing Li, Lin Wang, Tony Jun Huang, “Manipulating Single Particles, Cells, and Organisms Using Standing Surface Acoustic waves,” MicroTAS Conference, Okinawa, Japan, 2012. **(Oral Presentation)**
8. **Xiaoyun Ding**, Tony Jun Huang., “Size-dependent high-efficiency separation of particle/cell in microfluidics using tilted interdigital transducer,” IEEE IUS Conference, Dresden, Germany, 2012. **(Student Paper Competition Award)**
9. **Xiaoyun Ding**, Sz-Chin Steven Lin, Sixing Li, Lin Wang, Tony Jun Huang, “Single cell manipulation via standing surface acoustic wave based tunable acoustophoresis,” BMES Conference, Atlanta, GA, 2012. **(Oral Presentation)**
10. **Xiaoyun Ding**, Sz-Chin Steven Lin, Lin Wang, Tony Jun Huang, “Multichannel cell sorting in microfluidics using chirped interdigital transducer”, IEEE IUS Conference, Dresden, Germany, 2012. **(Oral Presentation)**
11. **Xiaoyun Ding**, Sz-Chin Steven Lin, Lin Wang, Tony Jun Huang, “Manipulation of single particles, cells, and organisms in microfluidics using chirped interdigital transducer” IEEE IUS Conference, Dresden, Germany, 2012.
12. **Xiaoyun Ding**, Chung Yu Keith Chan, Michael Ian Lapsley, Lin Wang, Tony Jun Huang, “Tunable Standing Surface Acoustic Waves Activated Cells Sorting”, MicroTAS Conference, Okinawa, Japan, 2012.
13. **Xiaoyun Ding**, Sixing Li, Chung Yu Keith Chan, Lin Wang, Tony Jun Huang, “High-Efficiency Continuous Particle Separation Using Tilted Interdigital Transducers”, MicroTAS Conference, Okinawa, Japan, 2012.
14. **Xiaoyun Ding**, Chung Yu Keith Chan, Michael Lapsley, Lin Wang, Tony Jun Huang, “Microfluidic cells sorting via surface acoustic wave based acoustophoresis”, BMES Conference, Atlanta, GA, 2012.
15. **Xiaoyun Ding**, Sixing Li, Chung Yu Keith Chan, Lin Wang, Tony Jun Huang, “Continuous particles separation via surface acoustic wave based acoustophoresis”, BMES Conference, Atlanta, GA, 2012.
16. Yuchao Chen, **Xiaoyun Ding**, Lin Wang, Tony Jun Huang, “Aligning Nanowires Using Standing Surface Acoustic Waves”, MicroTAS Conference, Okinawa, Japan, 2012.
17. Sixing Li, **Xiaoyun Ding**, Feng Guo, Yuchao Chen, Michael Ian Lapsley, Sz-Chin Steven Lin, Tony Jun Huang, “On-chip Standing Surface Acoustic Wave (SSAW)-Based Droplet Sorter”, BMES Conference, Atlanta, GA, 2012
18. **Xiaoyun Ding**, Jinjie Shi, S.-C. Steven Lin, and Tony Jun Huang. “Acoustic Tweezers: Achieving Quasi-dynamic Microparticle Patterning using tunable acoustic waves”, the International Conference on Solid-State Sensors, Actuators and Microsystems (Transducer’11), Beijing, China, 2011.
19. Yan Jun Liu, **Xiaoyun Ding**, Sz-Chin Steven Lin, Jinjie Shi, and Tony Jun Huang. “Polymer-dispersed Liquid Crystals Light Shutter Driven By Surface Acoustic Wave”, the International Conference on Solid-State Sensors, Actuators and Microsystems (Transducer’11), Beijing, China, 2011.