

Curriculum Vitae

He Tian

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EDUCATION

2010.9-2015.7 Ph. D. in Electronics Science and Technology

Department of Micro&Nano Electronics, Tsinghua University

Research direction: Graphene-based devices

Advisor: Prof. Tian-Ling Ren

2006.9-2010.7 B. S. in Microelectronics GPA: 92/100 (Rank 1st among 270 students)

School of Microelectronics, Hefei University of Technology

WORK EXPERIENCE

2015. 7-Present: Department of Electrical Engineering, University of Southern California

Los Angeles, CA 90089, USA

Position: Postdoc

Advisor: Prof. Han Wang

AWARDS AND HONORS

- **IEEE EDS Phd Student Fellowship (2013) (1 of 3 awardees in the world)**
- **Tsinghua University Top Grade Scholarship (2013) (1 of 10 awardees in Tsinghua)**
- **Tsinghua University Outstanding New Academic Doctor (2013) (1 of 10 awardees in Tsinghua)**
- **National Scholarship for Graduate Students Granted by Ministry of Education (2012, 2013, 2014) (all three years rank 1st in Department of Micro&Nano Electronics)**
- Tsinghua University Oversea Visiting Scholarship (2012)
- Ministry of Education Scholarship for Outstanding New Academic Doctor (2011)
- Tsinghua University First Grade Scholarship (2011, 2012)
- Anhui Province Outstanding Undergraduate Scholarship (2010)
- Hefei University of Technology Outstanding Undergraduate Scholarship (2010)
- Anhui Province Outstanding Student (2009)
- The Ministry of Education National Scholarship (2007, 2008, 2009)
- Hefei University of Technology Outstanding Student (2007, 2008, 2009)
- Hefei University of Technology Excellent Student (2009)

PUBLICATIONS

Total Citations: 1073, H-index: 20

(According to Google Scholar, <http://scholar.google.com/citations?hl=en&user=pj2-oQcAAAAJ>)

ResearcherID: [I-1299-2014](https://orcid.org/0000-0001-9129-2014)

Journal papers:

1. **He Tian**, Qiushi Guo, Yujun Xie, Huan Zhao, Cheng Li, Judy J Cha, Fengnian Xia, Han Wang, Anisotropic Black Phosphorus Synaptic Device for Neuromorphic Applications, *Advanced Materials*, 28, 4991-4997. DOI: [10.1002/adma.201600166](https://doi.org/10.1002/adma.201600166)
2. **He Tian**, Matthew L Chin, Sina Najmaei, Qiushi Guo, Fengnian Xia, Han Wang, Madan Dubey, Optoelectronic devices based on two-dimensional transition metal dichalcogenides, *Nano Research*, 9, 1543–1560. DOI: [10.1007/s12274-016-1034-9](https://doi.org/10.1007/s12274-016-1034-9)
3. **He Tian**, Haiming Zhao, Xue-Feng Wang, et al. In Situ Tuning of Switching Window in a Gate-Controlled Bilayer Graphene-Electrode Resistive Memory Device, *Advanced Materials*, 27, 7767–7774. DOI: [10.1002/adma.201503125](https://doi.org/10.1002/adma.201503125)
4. **He Tian**, Wentian Mi, Xue-Feng Wang, Haiming Zhao, Qian-Yi Xie, Cheng Li, Yu-Xing Li, Yi Yang, Tian-Ling Ren, Graphene dynamic synapse with modulatable plasticity, *Nano Letters*, 15, 8013-8019. DOI: [10.1021/acs.nanolett.5b03283](https://doi.org/10.1021/acs.nanolett.5b03283)
5. **He Tian**, Hong-Yu Chen, Tian-Ling Ren, Cheng Li, Qing-Tang Xue, Mohammad Ali Mohammad, Can Wu, Yi Yang, H.-S. Philip Wong, Cost-Effective, Transfer-Free, Flexible Resistive Random Access Memory Using Laser-Scribed Reduced Graphene Oxide Patterning Technology, *Nano Letters*, 14, 3214-3219 (2014). DOI: [10.1021/nl5005916](https://doi.org/10.1021/nl5005916)

First page highlight, *Nano Letters* website, June~August 2014

6. **He Tian**, Hong-Yu Chen, Bin Gao, Shimeng Yu, Jiale Liang, Yi Yang, Dan Xie, Jinfeng Kang, Tian-Ling Ren, Yuegang Zhang, H.-S. Philip Wong, Monitoring Oxygen Movement by Raman Spectroscopy of Resistive Random Access Memory with a Graphene-Inserted Electrode, *Nano Letters*, 13, 651-657 (2013). DOI: [10.1021/nl304246d](https://doi.org/10.1021/nl304246d)
7. **He Tian**, Cheng Li, Mohammad Ali Mohammad, Ya-Long Cui, Wen-Tian Mi, Yi Yang, Dan Xie, Tian-Ling Ren, Graphene Earphones: Entertainment for Both Humans and Animals, *ACS Nano*, 8, 5883–5890 (2014). DOI: [10.1021/nn5009353](https://doi.org/10.1021/nn5009353)

Top-20 most downloaded *ACS Nano* articles of the month, June&July&August 2014

First page highlight, *ACS Nano* website, June 2014

Selected as research highlight in *Chemical & Engineering News*, Volume 92, p. 40, May 19, 2014

8. Nan Liu, **He Tian**, Gregor Schwartz, Jeffery B.-H. Tok, Tian-Ling Ren, and Zhenan Bao, Large-Area, Transparent and Flexible Infrared Photodetector Fabricated Using P-N Junctions Formed by N-doping CVD-Grown Graphene, *Nano Letters*, 14, 3702-3708 (2014). DOI: [10.1021/nl500443j](https://doi.org/10.1021/nl500443j)

Top-20 most downloaded *Nano Letters* articles of the month, July&August 2014

9. **He Tian**, Tian-Ling Ren, Dan Xie, Yu-Feng Wang, Chang-Jian Zhou, Ting-Ting Feng, Di Fu, Yi Yang, Peng-Gang Peng, Li-Gang Wang, Li-Tian Liu. Graphene-on-Paper Sound Source Devices. *ACS Nano*, 5, 4878 (2011). DOI: [10.1021/nn2009535](https://doi.org/10.1021/nn2009535)

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10. Xiaomu Wang*, **He Tian***, Weiguang Xie*, Yi Shu, Wen-Tian Mi, Mohammad Ali Mohammad, Qian-Yi Xie, Yi Yang, Jian-Bin Xu, Tian-Ling Ren, Observation of giant two-dimensional band-piezoelectric effect on biaxial-strained graphene, *NPG Asia Materials*, 2015, 7, e154. (*: shared first authorship)
11. **He Tian**, Yi Shu, Xue-Feng Wang, Mohammad Ali Mohammad, Zhi Bie, Qian-Yi Xie, Cheng Li, Wen-Tian Mi, Yi Yang, Tian-Ling Ren, A Graphene-Based Resistive Pressure Sensor with Record-High Sensitivity in a Wide Pressure Range, *Scientific Reports*, In Press.
12. **He Tian**, Zhen Tan, Can Wu, Xiaomu Wang, Mohammad Mohammad, Dan Xie, Yi Yang, Jing Wang, Lain-Jong Li, Jun Xu, Tian-Ling Ren, Novel Field-Effect Schottky Barrier Transistors Based on Graphene-MoS₂ Heterojunctions, *Scientific Reports*, 4, 5951 (2014). DOI: [10.1038/srep05951](https://doi.org/10.1038/srep05951)
13. **He Tian**, Yi Yang, Dan Xie, Ya-Long Cui, Wen-Tian Mi, Yuegang Zhang, Tian-Ling Ren, Wafer-Scale Integration of Graphene-based Electronic, Optoelectronic and Electroacoustic Devices, *Scientific Reports*, 4, 3598 (2014). DOI: [10.1038/srep03598](https://doi.org/10.1038/srep03598)
14. **He Tian**, Yi Shu, Ya-Long Cui, Wen-Tian Mi, Yi Yang, Dan Xie, Tian-Ling Ren, Scalable fabrication of high-performance and flexible graphene strain sensors, *Nanoscale*, 6, 699-705 (2013). DOI: [10.1039/C3NR04521H](https://doi.org/10.1039/C3NR04521H)
15. **He Tian**, Shuo Ma, Hai-Ming Zhao, Can Wu, Jie Ge, Dan Xie, Yi Yang, Tian-Ling Ren, Flexible electrostatic nanogenerator using graphene oxide film, *Nanoscale*, 5, 8951-8957 (2013). DOI: [10.1039/C3NR01658G](https://doi.org/10.1039/C3NR01658G)
16. **He Tian**, Yi Yang, Dan Xie, Tian-Ling Ren, Yi Shu, Chang-Jian Zhou, Hui Sun, Xuan Liu, Cang-Hai Zhang, A novel flexible capacitive touch pad based on graphene oxide film, *Nanoscale*, 5, 890-894 (2013). DOI: [10.1039/C2NR33455K](https://doi.org/10.1039/C2NR33455K)
17. **He Tian**, Yi Yang, Cheng Li, Wen-Tian Mi, Mohammad Ali Mohammad, Tian-Ling Ren, Flexible, Transparent and Ultrathin Single-Layer Graphene Earphone, *RSC Advances*, 10.1039/C4RA16047A (2015). DOI: [10.1039/C4RA16047A](https://doi.org/10.1039/C4RA16047A)
18. **He Tian**, Yi Yang, Dan Xie, Tian-Ling Ren, Yi Shu, Hui Sun, Chang-Jian Zhou, Xuan Liu, Lu-Qi Tao, Jie Ge, Cang-Hai Zhang, Yuegang Zhang, Direct Laser Lithography of Asymmetric Graphene Ribbons on a Polydimethylsiloxane Trench Structure, *Physical Chemistry Chemical Physics*, 15, 6825-6830 (2013). DOI: [10.1039/C3CP50538C](https://doi.org/10.1039/C3CP50538C)
19. **He Tian**, Yi Yang, Dan Xie, Jie Ge, Tian-Ling Ren, A reduced graphene oxide sound-emitting device: a new use for Joule heating, *RSC Advances*, 3, 17672-17676 (2013). DOI: [10.1039/C3RA42983K](https://doi.org/10.1039/C3RA42983K)
20. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Gang Zhang, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu, A Novel Solid-State Thermal Rectifier Based On Reduced Graphene Oxide, *Scientific Reports*, 2, 523 (2012) DOI: [10.1038/srep00523](https://doi.org/10.1038/srep00523)

21. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu, Single-Layer Graphene Sound-Emitting Devices: Experiments and Modeling. *Nanoscale*, 4, 2272-2277 (2012). DOI: [10.1039/C2NR11572G](https://doi.org/10.1039/C2NR11572G)

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22. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu. Static Behavior of Graphene-Based Sound-Emitting Device, *Nanoscale*, 11, 3345-3349 (2012). DOI: [10.1039/C2NR30417A](https://doi.org/10.1039/C2NR30417A)
23. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu. Transparent, Flexible, Ultrathin Sound Source Devices Using Indium Tin Oxide Films, *Applied Physics Letters*, 99, 043503 (2011). DOI: [10.1063/1.3617462](https://doi.org/10.1063/1.3617462)
24. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu. Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate)-based Organic, Ultrathin and Transparent Sound-Emitting Device, *Applied Physics Letters*, 99, 233503 (2011). DOI: [10.1063/1.3666224](https://doi.org/10.1063/1.3666224)
25. **He Tian**, Dan Xie, Yi Yang, Tian-Ling Ren, Yu-Xuan Lin, Yu Chen, Yu-Feng Wang, Chang-Jian Zhou, Ping-Gang Peng, Li-Gang Wang, Li-Tian Liu. Flexible, Ultrathin and Transparent Sound-Emitting Devices Using Silver Nanowire Film, *Applied Physics Letters*, 99, 253507 (2011). DOI: [10.1063/1.3671332](https://doi.org/10.1063/1.3671332)

Selected for the Virtual Journal of Nanoscale Science & Technology 25 (2) 2012.

26. Zhen Tan*, **He Tian***, Tingting Feng, Lianfeng Zhao, Dan Xie, Yi Yang, Lei Xiao, Jing Wang, Tian-Ling Ren, Jun Xu, A small-signal generator based on a multi-layer graphene/molybdenum disulfide heterojunction, *Applied Physics Letters*, 103, 263506 (2013). (*: shared first authorship) DOI: [10.1063/1.4859655](https://doi.org/10.1063/1.4859655)
27. Hui Sun*, **He Tian***, Yi Yang, Dan Xie, Yu-Chi Zhang, Xuan Liu, Shuo Ma, Hai-Ming Zhao, Tian-Ling Ren, A novel flexible nanogenerator made of ZnO nanoparticles and multiwall carbon nanotube, *Nanoscale*, 5, 6117-6123 (2013). (*: shared first authorship) DOI: [10.1039/C3NR00866E](https://doi.org/10.1039/C3NR00866E)
28. Debin Wang*, **He Tian***, Yi Yang, Dan Xie, Tian-Ling Ren, Yuegang Zhang, Scalable and Direct Growth of Graphene Micro Ribbons on Dielectric Substrates, *Scientific Reports*, 3, 1348 (2013). (*: shared first authorship) DOI: [10.1038/srep01348](https://doi.org/10.1038/srep01348)
29. Yi Yang*, **He Tian***, Bing Yan, Hui Sun, Can Wu, Yi Shu, Li-Gang Wang, Tian-Ling Ren, A flexible piezoelectric micromachined ultrasound transducer, *RSC Advances*, 3, 24900-24905 (2013). (*: shared first authorship) DOI: [10.1039/C3RA44619K](https://doi.org/10.1039/C3RA44619K)
30. Yi Yang*, **He Tian***, Hui Sun, Run-Jie Xu, Shu Yi, Tian-Ling Ren, A spring-connected nanogenerator based on ZnO nanoparticles and a multiwall carbon nanotube, *RSC Advances*, 4, 2115-2118 (2014). (*: shared first authorship) DOI: [10.1039/C3RA45482G](https://doi.org/10.1039/C3RA45482G)
31. Qing-Tang Xue*, Zhe Wang*, **He Tian***, Yu Huan, Qian-Yi Xie, Yi Yang, Dan Xie, Cheng Li, Yi Shu, Xiao-Hui Wang, Tian-Ling Ren, A record flexible piezoelectric KNN ultrafine-grained nanopowder-based nanogenerator, *AIP Advances*, 5, 017102 (2015). (*: shared first authorship) DOI: [10.1063/1.4905698](https://doi.org/10.1063/1.4905698)
32. Yi Yang, **He Tian**, Yu-Feng Wang, Yi Shu, Chang-Jian Zhou, Hui Sun, Cang-Hai Zhang, Hao Chen, Tian-

- Ling Ren, An Ultra-High Element Density pMUT Array with Low Crosstalk for 3-D Medical Imaging, *Sensors*, 13, 9624-9634 (2013). DOI: [10.3390/s130809624](https://doi.org/10.3390/s130809624)
33. Tian-Ling Ren, **He Tian**, Dan Xie, Yi Yang, Flexible Graphite-on-Paper Piezoresistive Sensors, *Sensors*, 12, 6685-6694 (2012). DOI: [10.3390/s120506685](https://doi.org/10.3390/s120506685)
 34. Haiming Zhao, Yung-Chang Lin, Chao-Hui Yeh, **He Tian**, Yu-Chen Chen, Dan Xie, Yi Yang, Kazu Suenaga, Tian-Ling Ren, Po-Wen Chiu, Growth and Raman Spectra of Single-Crystal Trilayer Graphene with Different Stacking Orientations, *ACS Nano*, 8, 10766-10773 (2014). DOI: [10.1021/nn5044959](https://doi.org/10.1021/nn5044959)
 35. Tingting Feng, Dan Xie, Yuxuan Lin, **He Tian**, Haiming Zhao, Tianling Ren, Hongwei Zhu, Unipolar to ambipolar conversion in graphene field-effect transistors, *Applied Physics Letters*, 101, 253505 (2012). DOI: [10.1063/1.4772493](https://doi.org/10.1063/1.4772493)
 36. Yuxuan Lin, Xinming Li, Dan Xie, Tingting Feng, Yu Chen, Rui Song, **He Tian**, Tianling Ren, Minlin Zhong, Kunlin Wang, Hongwei Zhu, Graphene/semiconductor heterojunction solar cells with modulated antireflection and graphene work function, *Energy & Environmental Science*, 6, 108-115 (2012). DOI: [10.1039/C2EE23538B](https://doi.org/10.1039/C2EE23538B)
 37. Yongyuan Zang, Dan Xie, Xiao Wu, Yu Chen, Yuxuan Lin, Mohan Li, **He Tian**, Xiao Li, Zhen Li, Hongwei Zhu, Tianling Ren, David Plant, Enhanced photovoltaic properties in graphene/polycrystalline BiFeO₃/Pt heterojunction structure, *Applied Physics Letters*, 99, 132904 (2011). DOI: [10.1063/1.3644134](https://doi.org/10.1063/1.3644134)
 38. Tingting Feng, Dan Xie, Yuxuan Lin, Yongyuan Zang, Tianling Ren, Rui Song, Haiming Zhao, **He Tian**, Xiao Li, Hongwei Zhu, Litian Liu, Graphene based Schottky junction solar cells on patterned silicon-pillar-array substrate, *Applied Physics Letters*, 99, 233505 (2011). DOI: [10.1063/1.3665404](https://doi.org/10.1063/1.3665404)
 39. Tingting Feng, Dan Xie, **He Tian**, Pinggang Peng, Di Zhang, Di Fu, Tianling Ren, Xinming Li, Hongwei Zhu, Multi-layer graphene treated by O₂ plasma for transparent conductive electrode applications, *Materials Letters*, 73, 187-189 (2012). DOI: [10.1016/j.matlet.2011.12.121](https://doi.org/10.1016/j.matlet.2011.12.121)
 40. Hua-Lin Cai, Yi Yang, Nan Qi, Xiao Chen, **He Tian**, Zheng Song, Yang Xu, Chang-Jian Zhou, Jing Zhan, A.Wang, Baoyong Chi, Tian-Ling Ren, A 2.7-mW 1.36–1.86-GHz LC-VCO With a FOM of 202 dBc/Hz Enabled by a 26%-Size-Reduced Nano-Particle-Magnetic-Enhanced Inductor, *IEEE Transactions on Microwave Theory and Techniques*, 62, 1221-1228 (2014). DOI: [10.1109/TMTT.2014.2312886](https://doi.org/10.1109/TMTT.2014.2312886)
 41. Cang-Hai Zhang, Yi Yang, Yu-Feng Wang, Chang-Jian Zhou, Yi Shu, **He Tian**, Tian-Ling Ren, A Novel Fabrication Method for Flexible SOI Substrate Based on Trench Refilling with Polydimethylsiloxane, *Chinese Physics Letters*, 30, 086201 (2013). DOI: [10.1088/0256-307X/30/8/086201](https://doi.org/10.1088/0256-307X/30/8/086201)
 42. Cang-Hai Zhang, Yi Yang, Chang-Jian Zhou, Yi Shu, **He Tian**, Zhe Wang, Qing-Tang Xue, Tian-Ling Ren, Wafer-Scale Flexible Surface Acoustic Wave Devices Based on an AlN/Si Structure, *Chinese Physics Letters*, 30, 077701 (2013). DOI: [10.1088/0256-307X/30/7/077701](https://doi.org/10.1088/0256-307X/30/7/077701)
 43. Pinggang Peng, Dan Xie, Yi Yang, Changjian Zhou, Shuo Ma, Tingting Feng, **He Tian**, Tianling Ren, Bipolar and unipolar resistive switching effects in an Al/DLC/W structure, *Journal of Physics D: Applied Physics*, 45, 365103 (2012). DOI: [10.1088/0022-3727/45/36/365103](https://doi.org/10.1088/0022-3727/45/36/365103)

44. Pinggang Peng, Dan Xie, Yi Yang, Yongyuan Zang, Xili Gao, Changjian Zhou, Tingting Feng, **He Tian**, Tianling Ren, Xiaozhong Zhang, Journal of Applied Physics, 111, 084501 (2012). DOI: [10.1063/1.3703063](https://doi.org/10.1063/1.3703063)
45. Tingting Feng, Dan Xie, Yuxuan Lin, Haiming Zhao, Yu Chen, **He Tian**, Tianling Ren, Xiao Li, Zhen Li, Kunlin Wang, Dehai Wu, Hongwei Zhu, Efficiency enhancement of graphene/silicon-pillar-array solar cells by HNO₃ and PEDOT-PSS, *Nanoscale*, 4, 2130-2133 (2012). DOI: [10.1039/C2NR12001A](https://doi.org/10.1039/C2NR12001A)
46. Zhe Wang, Qing-Tang Xue, Yuan-Quan Chen, Yi Shu, **He Tian**, Yi Yang, Dan Xie, Jian-Wen Luo and Tian-Ling Ren, A Flexible Ultrasound Transducer Array with Micro-Machined Bulk PZT, *Sensors*, 15, 2538-2547 (2015). DOI: [10.3390/s150202538](https://doi.org/10.3390/s150202538)

Conference Papers:

1. **He Tian***, Cheng Li, Bingchen Deng, Fengnian Xia, Han Wang, Vertical Ambipolar Barrier Transistor Based on Black Phosphorous-Tin Selenide Van der Waals Heterojunction, *74th Device Research Conference (DRC 2016)*, 16252190.
2. **He Tian**, Yi Shu, Mohammad Ali Mohammad, Cheng Li, Yi Yang, Tian-Ling Ren, An Ultra-Sensitive Resistive Pressure Sensor Based on the V-Shaped Foam-like Structure of Laser-Scribed Graphene, *2014 IEEE International Electron Devices Meeting (IEDM 2014)*, 15.1, USA.
3. **He Tian**, Cheng Li, Mohammad Ali Mohammad, Yi Yang, Tian-Ling Ren, Flexible, Transparent Single-Layer Graphene Earphone, *2014 IEEE International Electron Devices Meeting (IEDM 2014)*, 15. 3, USA.
4. Debin Wang*, **He Tian***, Iñigo Martin-Fernandez, Yi Yang, Tian-Ling Ren, Yuegang Zhang, Large-Scale Fabrication of Graphene-based Electronic and MEMS Devices, *2014 IEEE International Electron Devices Meeting (IEDM 2014)*, 15.2, USA. (*: shared first authorship)
5. **He Tian**, Yi Yang, Dan Xie, Yi Shu, Ya-Long Cui, Can Wu, Hua-Lin Cai, Tian-Ling Ren, Wafer-scale flexible graphene strain sensors, *2013 IEEE International Electron Devices Meeting (IEDM 2013)*, 14.6. 1-14.6. 4, December 2013, Washington DC, USA.
6. Hong-Yu Chen*, **He Tian***, Bin Gao, Shimeng Yu, Jiale Liang, Jinfeng Kang, Yuegang Zhang, Tian-Ling Ren, H.-S. P. Wong. Electrode/Oxide Interface Engineering by Inserting Single-Layer Graphene: Application for HfO_x-Based Resistive Random Access Memory. *IEEE International Electron Devices Meeting (IEDM 2012)*, pp. 20.5. 1-20.5. 4, December 2012, San Francisco CA, USA. (*: shared first authorship)
7. **He Tian**, Yi Shu, Ya-Long Cui, Yi Yang, Tian-Ling Ren, Novel Laser Scribed Graphene Devices, *3rd International Symposium on Next-Generation Electronics (ISNE 2014)*, May 2014, Taiwan, China. (Invited Talk)
8. **He Tian**, Ya-Long Cui, Yi Yang, Dan Xie, Tian-Ling Ren, Wafer-scale flexible graphene loudspeakers, *2014 IEEE 27th International Conference on Micro Electro Mechanical Systems (MEMS 2014)*, pp. 556-559, January 2014, San Francisco CA, USA.

9. **He Tian**, Yi Yang, Dan Xie, Martin-Fernandez Inigo, Debin Wang, Tian-Ling Ren, Yuegang Zhang, Scalable and Direct Growth of Graphene Microribbons and Nanoribbons On Dielectric Substrates, *ECS Meeting*, pp. 1956, October 2013, San Francisco CA, USA. (**Invited Talk**)
10. Tian-Ling Ren, **He Tian**, Yi Yang, Dan Xie, Novel Graphene-Based Devices, *IEEE Nanotechnology Materials and Devices Conference (NMDC 2013)*, October 2013, Taiwan, China. (**Invited Talk**)
11. **He Tian**, Yi Yang, Dan Xie, Hong-Yu Chen, H-S Philip Wong, Tian-Ling Ren, Novel graphene-based devices, *2013 IEEE International Conference of Electron Devices and Solid-State Circuits (EDSSC 2013)*, pp.1-2, June 2013, Hong Kong, China. (**Invited Talk**)
12. **He Tian**, Yi Yang, Dan Xie, Tian-Ling Ren, Yi Shu, Chang-Jian Zhou, Lu-Qi Tao, Li-Tian Liu, Flexible and large-area sound-emitting device using reduced graphene oxide, *2013 IEEE 26th International Conference on Micro Electro Mechanical Systems (MEMS 2013)*, pp. 709-712, January 2013, Taiwan, China.
13. Hao Ren, **He Tian**, Tian-Ling Ren, Junseok Chae, A micro-scale microbial supercapacitor, *2014 IEEE 27th International Conference on Micro Electro Mechanical Systems (MEMS 2014)*, pp. 362-365, January 2014.
14. CJ Zhou, Y Yang, Y Shu, CH Zhang, **H Tian**, ZH Zhang, D Xie, TL Ren, J Zhou, B Feng, H Jin, SR Dong, Ultra flexible pseudo-lamb wave RF resonators based on ZnO/PI and AlN/PI structures, *2012 IEEE International Electron Devices Meeting (IEDM 2012)*, 5.4, USA.
15. Hua-Lin Cai, Yi Yang, Cang-Ran Guo, Chang-Jian Zhou, Tian-Xiang Ye, Can Wu, **He Tian**, Dan Xie, Jing Liu, Tian-Ling Ren, A high order mode 6.4GHz ultra-high sensitivity nanoscale surface acoustic wave biosensor, *2013 IEEE International Electron Devices Meeting (IEDM 2013)*, 18.2, USA.
16. Pinggang Peng, Dan Xie, Changjian Zhou, **He Tian**, Tingting Feng, Xiao Li, Tianling Ren, Hongwei Zhu, Multilayer graphene growth by a metal-catalyzed crystallization of diamond-like carbon, *2012 7th IEEE International Conference on Nano/Micro Engineered and Molecular Systems (NEMS 2012)*, 7-10, Japan.
17. Yu-Xuan Lin, Dan Xie, Yu Chen, Tingting Feng, Qiming Shao, **He Tian**, Tianling Ren, Xinming Li, Xiao Li, Lili Fan, Kunlin Wang, Dehai Wu, Hongwei Zhu, Optimization of graphene/silicon heterojunction solar cells, *2012 38th IEEE Photovoltaic Specialists Conference (PVSC 2012)*, 002566 – 002570, USA.

Patent:

1. Tian-Ling Ren, **He Tian**, Dan Xie, Yi Yang, Li-Tian Liu, A thermal-induced acoustic device, CN102307325 B, Grant, Apr 16, 2014.
2. Tian-Ling Ren, **He Tian**, Dan Xie, Yi Yang, Flexible and transparent acoustic apparatus, WO2013010398 A1, Application, Jan 24, 2013.
3. Tian-Ling Ren, **He Tian**, Dan Xie, Yi Yang, A flexible and transparent thermal-induced acoustic device, CN201210030702.5, Application, Oct 24, 2013.
4. Tian-Ling Ren, **He Tian**, Xiaomu Wang, Yi Yang, A colour tunable graphene-based light emitting device and its fabrication process, CN201410317679.7, Application, July 7, 2014.