

Yishu Zhou

CONTACT INFORMATION	1037 Luoyu Rd., Wuhan, PRC 430074 http://yzhou.website/	+86-133-4989-6923 yishuzhou@hust.edu.cn
EDUCATION	Bachelor of Engineering, Optoelectronic Information Science and Engineering Huazhong University of Science and Technology , Wuhan, PRC <i>Overall GPA: 92.00/100 (Rank: 3/345)</i>	Sept 2013 to present
RESEARCH EXPERIENCE	Research Intern Department of Physics, McGill University, Canada Project 1: <i>Automation and Measurement with UHV Fiber Interferometer</i> <ul style="list-style-type: none">- Automated the mode imaging system based on ultra high vacuum fiber interferometer and MEMS.- Data collection and analysis for mode imaging of a phononic crystal membrane.- Measured the bolometric damping and antidamping for Si₃N₄ nanostrings. Project 2: <i>Modeling Si₃N₄ membrane and MEMS</i> <ul style="list-style-type: none">- Analytically calculated and simulated the phononic crystal band structure.- Simulated the optically defined localization modes and the localized defect modes.- Simulated the mode behaviors of MEMS. Research Assistant Wuhan National Laboratory for Optoelectronics, PRC Major project: <i>Liquid droplet as self-powered temperature and force sensor</i> <ul style="list-style-type: none">- Found the way to make ITO glass hydrophobic.- Designed and performed the experiments to test the droplet sensor performance.- Fitted the data to separate temperature and force stimuli sensing.- Constructed an integral system based on an isolate droplet sensor, an amplifier, a microcontroller unit, and LEDs for application demonstration. Research Assistant National Engineering Research Center of Laser Processing, PRC Project: <i>Graphene as saturable absorber for mode-locking lasers</i> <ul style="list-style-type: none">- Used the split-step Fourier transform to obtain the numerical solution of the Haus Master Equation.- Compared graphene and SESAM as a saturable absorber.	Jul 2016 to Nov 2016 Advisor: Prof. Jack Sankey Dec 2014 to Jun 2016 Advisor: Prof. Jun Zhou Apr 2015 to Dec 2015 Advisor: Prof. Guangzhi Zhu
PUBLICATIONS & MANUSCRIPTS	<ol style="list-style-type: none">1. Liu, K.[†], Zhou, Y.[†], Yuan, F., Mo, X., Yang, P., Chen, Q., Li, J., Ding, T., and Zhou, J. "Self-powered Multimodal Temperature and Force Sensor Based on a Liquid Droplet". <i>Angew. Chem.</i> 2016, doi:10.1002/ange.201609088 [Co-first authors[†], IF = 11.709]2. Yang, P., Liu, K., Chen Q., Mo, X., Zhou, Y., Li, S., Feng, G., and Zhou, J. "Wearable Thermocells Based on Gel Electrolytes for the Utilization of Body Heat". <i>Angew. Chem.</i> 2016, 128, 12229.3. Liu, K., Ding, T., Mo, X., Chen, Q., Yang, P., Li, J., Xie, W., Zhou, Y., and Zhou, J. "Flexible Microfluidics Generator for Self-powered Systems". <i>Nano Energy</i>. 2016, In press.	
AWARDS	<ul style="list-style-type: none">- National Scholarship (<i>Three times</i>) 2014, 2015, 2016 Top 1% among all undergraduates, awarded by the Ministry of Education of PRC- Pacemaker to Merit students Nov 2016 Top 20 out of 32000 undergraduates, the highest honor for undergraduates- "Optical System Design" Summer Camp Scholarship Sept 2015 Awarded by ITMO University, Russia- Honorable Mention in Mathematical Contest in Modeling Feb 2016	
SKILLS	Programming: C, Python, Objective C, Matlab, Mathematica (tyro). Simulation: COMSOL. Experiment: Ultrahigh Vacuum Systems, Lock-in Detection, MEMS, Fiber Interferometry, Automated Data Acquisition and Analysis, Solder. Other: Altium Designer (Electronics), Zemax (Optics), Latex.	