

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 Sept 2013 to present Overall GPA: 92.00/100 (Rank: 3/345)	
RESEARCH EXPERIENCE	Research Intern Jul 2016 to present Department of Physics, McGill University, Canada Advisor: Prof. Jack Sankey Project 1: <i>Optically defined directional localization</i> (independent) <ul style="list-style-type: none">- Calculated and simulated the phononic crystal band structure to find the localization modes.- Simulated the phononic crystal behaviors under the optical trap.- Constructed the fiber interferometer mode measuring system on the basis of the previous work of the group.- Measured the mechanical modes of the devices fabricated by the others of the group. Project 2: <i>Near-field thermal radiation for optomechanics between parallel structures</i> <ul style="list-style-type: none">- Assisted in constructing the experimental system based on fiber interferometer and MEMS.- Took measurements of the device and analysed the data. Research Assistant Dec 2014 to Jun 2016 Wuhan National Laboratory for Optoelectronics, PRC Advisor: Prof. Jun Zhou Major project: <i>Liquid droplet as self-powered temperature and force sensor</i> <ul style="list-style-type: none">- Designed and built the experimental setup (including mechanical vibrator, amplifier, data acquisition card, dynamometer, thermocouple, etc.)- Conducted all the experiments, analysed the data, and used theoretical calculations to explain the experimental results.- Proposed the application of this sensor. Research Assistant Apr 2015 to Dec 2015 National Engineering Research Center of Laser Processing, PRC Advisor: Prof. Guangzhi Zhu 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, which describes the passive mode-locking pulse process.- Compared graphene and SESAM when they are used as a saturable absorber.	
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" 2016. Accepted by <i>Angew. Chem.</i> [Co-first authors[†]]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. Int. Ed.</i>, 2016, 55, 12050–12053.3. 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." 2016. Submitted to <i>Nano Energy</i>.	
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- Outstanding Student of Huazhong Univ. of Sci. & Tech. 2014-2016 Top 1% among all 2nd & 3rd year students, one of the top honors for undergraduate- "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. Design: Altium Designer (Electronics), Zemax (Optics). Other: Latex, microcontrollers.	