Xiaoqi Zheng

393 Middle Huaxia Road, Pudong, Shanghai, China 201210

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EDUCATION

ShanghaiTech University   Expected in June 2019

B.Eng in Materials Science and Engineering, School of Physical Science and Technology.

Overall GPA: 3.75/4.00 | Major GPA: 3.93/4.00 | Rank: 5/49

AWARDS & HONORS

- Dean's Scholarship, 2017-2018, top ranking 2–7%
- Outstanding Student of ShanghaiTech University, 2017-2018
- Study Abroad Scholarship of ShanghaiTech University, 2017
- Dean's Scholarship, 2016-2017, top ranking 2–7%
- Outstanding Student of ShanghaiTech University, 2016-2017
- Outstanding Student of ShanghaiTech University, 2015-2016

STANDARDIZED TESTS

GRE   Total 326, Verbal Reasoning 156, Quantitative Reasoning 170, Analytical Writing 3.5

TOEFL iBT   Total 106, Listening 30, Speaking 22, Reading 29, Writing 25

RESEARCH PROJECTS

Research on New Perovskite Materials   2017/04–2018/07

Bo-Lin Lin Research Group, ShanghaiTech University   *Advisor: Prof. Bo-Lin Lin*

- Synthesis and characterization of heterovalent-doped 2D perovskites
- Fundamental discoveries of the presence of interfacial-layered and middle-layered Bi^{3+} sites, positive correlation between the layer number and the doping-level, and enhanced light-absorbing ability upon Bi^{3+} doping
- Systematic experimental investigations of the layer number and the doping-level effects on photophysical behaviors and material stabilities along with DFT calculations

Research on Olympic Games by Web Scraping   2017/11–2017/12

Independent research

- Scraped the information of all past Olympic Games using Python (Beautiful Soup)
- Built a K-means clustering to investigate how the national indicators such as GDP, population, GDP growth and life expectancy played roles in the medal-winning battle of the Olympics
- Performed data analysis and visualization about how different factors (e.g., gender and age) affected medal winning of athletes

Research on Bioresorbable Electronics & Wearable Gas Sensors, visiting student   2018/07–2018/08

Huanyu Cheng Research Group, The Pennsylvania State University   *Advisor: Prof. Huanyu Cheng*

- Sintering of zinc nanoparticles for printable bioresorbable electronics by intense pulsed light
- Investigations of reduced graphene oxide (rGO)/MoS_2 and graphene/MoS_2 composites synthesized by different routes for NO_2 gas sensing
- Investigations of metal oxides (NiO) synthesized by laser printing for volatile ethanol sensing
- Enhancement of stretchability of rGO/MoS_2 and graphene/MoS_2 nanocomposites as NO_2 gas sensors

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Research on Hybrid Perovskites Using Solid-state NMR   2018/04–present

Bo-Lin Lin Research Group, ShanghaiTech University   *Advisor: Prof. Bo-Lin Lin & Dr. Haiming Liu*

- Investigations of ^{13}C, ^{1}H and ^{207}Pb magic angle spinning (MAS)/static solid-state NMR (ssNMR) spectra of $(CH_3(CH_2)_3NH_3)_2PbI_4$ as a function of temperature
- Using variable-temperature powder X-ray diffraction (PXRD) to assist the comprehension of crystal structure, phase transition and dynamics
- Studies of the mobility of ammonium and stability by the second moment (M_2) analysis of the ^{1}H spinning sidebands manifolds and the spin-lattice relaxation time (T_1) measured for $(CH_3(CH_2)_3NH_3)_2PbI_4$

PAPERS TO BE PUBLISHED

- F Lyu, <u>X Zheng</u>, Y Wang, R Shi, J Yang, Z Li, J Yu, BL Lin*. Bi^{3+} Doped 2D Ruddlesden-Popper Organolead Iodide Perovskites. *Angewandte Chemie* (Submitted)
- <u>X Zheng</u>, H Cheng*. Flexible and stretchable metal oxide gas sensors for healthcare. *SCIENCE CHINA Technological Sciences* (In Revision)
- <u>X Zheng</u>[‡], F Lyu[‡], R Shi, H Liu*, BL Lin*. A study of hybrid two-dimensional lead iodide perovskites $(CH_3(CH_2)_3NH_3)_2PbI_4$ using solid-state nuclear magnetic resonance. *Chemical Communications* (In preparation) ([‡]: equal contribution)

SKILLS

- Scientific Instruments: Operational experiences in UV-Vis-NIR spectrophotometer, powder XRD, FTIR spectrometer, SEM combined with EDX, Intense Pulsed Light (IPL) system, Microplotter for picoliter fluid dispensing system; familiar with TEM, STEM, NMR, XPS, AFM
- Scientific Software: Proficient in Origin, ChemDraw, Jade, Topspin, MestReNova, MS Office
- Programming Languages: MATLAB, Mathematica, Python
- English Skills: Reading and writing papers fluently, giving posters and presentations without difficulties

SOCIAL SERVICES & ACTIVITES

Volunteer of *Shanghai International Marathon*	2018/11
Visiting student at *The Pennsylvania State University*	2018/07–2018/08
Exchange Program at *Fu Jen Catholic University*	2017/12–2017/12
Summer Exchange Program at *University of California, Berkeley*	2017/07–2017/08
President of Student Press Corps at *ShanghaiTech University*	2016/09–Present
Founder of the Flea Market at *ShanghaiTech University*	2015/09–Present

REFERENCES

Dr. Bo-Lin Lin	**Dr. Haiming Liu**	**Dr. Huanyu Cheng**
Assistant Professor	Faculty Director	Assistant Professor
School of Physical Science and Technology	School of Physical Science and Technology	Department of Engineering Science and Mechanics
ShanghaiTech University, China	ShanghaiTech University, China	The Pennsylvania State University, U.S.
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