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

AWARDS & HONORS

- Dean's Scholarship, 2016-2017, top ranking 3–7%
- Study Abroad scholarship of ShanghaiTech University, 2017
- Outstanding Student of ShanghaiTech University, 2016-2017
- Outstanding Student of ShanghaiTech University, 2015-2016

STANDARDIZED TESTS

GRE	Total 318, Verbal 152, Quantitative 166, Analysis Writing 3.5
TOEFL iBT	Total 100, Speaking 23, Reading 28, Listening 25, Writing 24

RESEARCH PROJECTS

Research on New Perovskite Materials 2017/04–2018/06

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

- Synthesis and characterization of heterovalent-doped 2D perovskites
- Systematic investigations of the layer number and the doping-level effects on photophysical behaviors and material stabilities
- Performing DFT calculations to explain the performances of Bi-doped 2D perovskites
  - **Paper**: F. Lyu, X. Zheng, Y. Wang, R. Shi, J. Yang, Z. Li, J. Yu, B. Lin*. Bi^{3+} Doped 2D Ruddlesden-Popper Organolead Iodide Perovskites. *Angewandte Chemie* (Under Review)

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 affected medal winning of athletes
  - **Report:** Data report based on Olympic Games.

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

Bo-Lin Lin Research Group, ShanghaiTech University *Advisor: Prof. Bo-Lin Lin & Prof. 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
  - **Paper**: X. Zheng‡, F. Lyu‡, R. Shi, H. Liu*, B. 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)

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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 for NO_2 gas sensing using different synthesis route
- Investigations of metal oxides (NiO) for volatile ethanol sensing synthesized by laser printing
- Enhancement of stretchability of rGO/MoS_2 and graphene/MoS_2 nanocomposite as NO_2 gas sensors
  - **Paper**: X. Zheng, H. Cheng*. Flexible and stretchable metal oxide gas sensors for healthcare. *SCIENCE CHINA Technological Sciences* (Under Review)

SELECTED COURSES

Design Thinking: Applied Innovation (A+), Introduction of Life Science (A), Fundamental of Materials Science II (A+), Macroeconomics (A), Introduction to Information Science and Technology (A), Probability and Statistics (A), Fundamentals of Materials Science I (with Lab) (A), Inorganic Chemistry(A), Nanomaterials (A+), Spectroscopy (A+)

TECHNICAL 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 Softwares: 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 SERVICE & ACTIVITES

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 Students Press Corps at *ShanghaiTech University* 2016/09–Present
Founder of the Flea Market at *ShanghaiTech University* 2015/09–Present

REFERENCES

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Dr. Huanyu Cheng
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