

Hao-xuan Wang

University of Science and Technology of China, Hefei, 230026, P. R. China

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Education

University of Science and Technology of China Sept. 2015 - present
School of Physical Sciences
Major in **Nuclear Engineering and Technology**
GPA: 3.57/4.3
Rank: 6/41(15%)

Research Experience

Parameter diagnostic of electrode discharging plasma

Mentor: Prof. Minyou Ye

University of Science and Technology of China Sept. 2017 – present

- building up a discharging device and setting up a spectrograph
- getting the ozone concentration, electron temperature and plasma density of this device by measuring the emission and absorption spectra
- applying this device to disinfect air and water

Background analysis of magnetic field in KTX (Keda Torus eXperiment)

Mentor: Dr. Hong Li

University of Science and Technology of China Sept. 2017 – present

- using initial data from magnetic probes to get background magnetic field and eddy current generated by ohmic heating systems and equilibrium field coils
- obtaining the impulse response of the device to the ohm field by FFT
- calculating out the penetration time of magnetic field on copper shell to check whether the ohmic field fits our design
- building certain magnetic field configuration to remove the crosstalk of the magnetic probes

Nanoscale effects on gas breakdown

Mentor: Dr. Allen Garner

Purdue University July 2018 – Sept. 2018

- setting up a device composed of an oscilloscope, a power supply, a needle and a copper plate to test the breakdown voltage on micron-scale and the effect of plate roughness
- calculating the plate distance when Child-Langmuir Law transits into quantum situation
- simulating the discharge process between two parallel plates in the first few nanoseconds by numerical modeling

Honors and Awards

Outstanding Student Scholarship, first prize (2017)

Outstanding Student Scholarship, third prize (2016)

The Scholarship of ZongZhi Zhang (2016)

The Scholarship of China General Nuclear Power Group, third prize (2017)

The Scholarship of China General Nuclear Power Group, second prize (2018)

Volunteer Experience & Extracurricular Activities

Volunteer, Chinese Academy of Sciences Public Science Day

May 2017

Monitor, sophomore class of School of Nuclear Science and Technology

Sept. 2016 - Aug. 2017

Saxophone player, USTC Student's Symphony Orchestra

Sept. 2017 - present

Skills

Languages: Mandarin (native), English (TOEFL: 23/102)

Computer Skills: C, Matlab, Origin, AutoCAD