

CURRICULUM VITAE

Jian ZHOU

Department of Physics, Fudan University
Room 4023, No.9 Building, Lane210, Zhengsu Road, Shanghai, P.R. China
Tel: 86-21-65119519 Mobile: 86-13917276270
Email: yeyweaver@gmail.com

Academic Background:

- September, 2005-present
B.S. candidate, Department of Physics (as an excellent high school student, admitted directly without taking the examination), Fudan University, Shanghai, P.R. China
(**Overall GPA:** 3.72/4.00 **Overall GPA rank:** 3/108 **Major GPA:** 3.93/4.00)

Awards & Honors:

- 2007-2008 National Scholarship(From the Education Ministry of China, only for the top 2% students in academic performance)
- 2006-2007 National Scholarship((From the Education Ministry of China, only for the top 2% students in academic performance)
- 2005-2006 People's Scholarship 2nd Prize
- 2005-2008 Awards For Outstanding Students Majoring In Fundamental Discipline of Learning
- 2004 National Physics Contest for High School Student 1st Prize

Standard Test:

- **TOEFL IBT** R29+L26+S22+W29=106
- **GRE General** V630 (90%)+Q800 (94%)+AW3.5 (20%)
- **GRE Physics** coming out soon

Research Interests:

novel nanostructures, electronic and optoelectronic devices, strongly correlated electron system, spintronics, thermoelectrics, novel semiconductors

Research Experiences:

March, 2008 – present **“Novel Approach For Preparing Porous Silicon”**
Undergraduate Research Student National Surface Physics Lab, Fudan University
Director: Prof. Hou Xiaoyuan

- Independently proposed a novel idea for etching the silicon wafer in the hyper-gravitational environment to improve its structural regularity.
- Designed a centrifugal anodic etching apparatus, and did the engineering calculation for its parameters, addressed all the technical challenges for its realization.
- Built a set of experimental apparatus which could etch the silicon in the environment up to 1500 times of artificial gravity with the assistance of an engineer.

- Successfully improved the structural regularity of the porous silicon compared to the conventional approach

March, 2008 – September, 2008

Undergraduate Research Student

“Optical Pumping Apparatus Remolding”

Advanced Physics Experiment Center

Director: Prof. Wang Yu

- Observed the “abnormal” signals of the optical pumping apparatus and the defects in its design is identified for the first time.
- Designed a new circuit to process the signals without any distortion and successfully explained the origins of all the abnormal signals **for the first time**.
- Measured the wall relaxation rate with my remolded experiment apparatus and successfully built a new non-degenerated perturbation theoretical model to explain its mechanism.
- Two first author papers about my discoveries have been submitted to journals.

September, 2007 – January, 2008

Undergraduate Research Student

“Semiconductor Photocatalytic Water Splitting”

Advanced Material Lab, Fudan University

Director: Prof. Hou Xiaoyuan

- Thoroughly investigated the current study in the visible-light photocatalytic water splitting.
- Proposed a novel pn-nanofilm photocatalyst structure with higher quantum efficiency.
- Designed a set of visible light photocatalytic water splitting device.

Publications:

- **Jian Zhou**, X.Yu and Y.Wang, “The Remolding of the Optical-Magnetic Resonance Apparatus and the Discussion to the Abnormal Optical Pumping Signals”, *Physics Experiment*, P0810, In press.
- **Jian Zhou**, X.Yu and Y.Wang, “The Measurement and Theoretical Analysis of Wall-relaxation Mechanism in the Optical-magnetic Resonance Experiment”, submitted to **College Physics**, under review.
- **Jian Zhou**, X.Y. Hou, “Improving the Structural Regularity of Porous Silicon Through Hyper-gravitational Electrochemical Etching” Currently in Preparation

Extracurriculum Activities:

- 2006-present

Leader of Young Volunteers Association, Physics Department. Involved in planning and executing commonweal programs of helping people with intellectual disability, teaching computer in community school, etc

- 2005-2007

Chairman of Sifan Community, aiming at promote popular science education among primary school students.

- 2005-present

Member of the Cycling Association, long distance travel on bicycle