# Qichen Song

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#### EDUCATION

Huazhong University of Science and Technology (HUST), 2011.09-present

Major: Thermal Energy and Power Engineering Degree: Bachelor of Engineering, expected 2015.06 Overall GPA: **92.2/100** Overall Rank: 1/366

**Standard Tests** 

TOFEL: 107 (R29 L30 S23 W25) GRE: V152+Q170+AW4.0

## RESEARCH EXPERIENCE

#### Research on coupling between different vibrational modes in graphene

Advisor: Prof. Nuo Yang, Dr. Meng An Nano Heat Group 2014.09-present

- Manipulating temperature gradient in separated directions
- Investigating coupling between different vibration modes and their contributions to thermal conductivity

## Research on modulation of thermal conductivity in folded graphene

2013.11-2014.09

Advisor: Prof. Nuo Yang

Nano Heat Group

- Independently wrote code of nonequilibrium molecular dynamics (NEMD)
- Designed innovative structure to reduce the thermal conductivity significantly
- Obtained size-independent thermal conductivity that characterizes large-sized folded graphene's thermal properties

## Research on the temperature and flow field analysis of sapphire crystal growth Multiscale Process Modeling Lab

2013.08-2013.11

- Advisor: Prof. Haisheng Fang
- · Comprehensively investigated varied flow fields' influence on sapphire growth
- Used Discrete Phase Model to investigate the distribution of inert impurities
- Simplified the complex system and found a new way to improve sapphire's quality

## Team leader on designing the device utilizing wave energy in small watersheds Advisor: Prof. Jun Xiang

2013.05-2013.08

- Designed the innovative machine to collect and convert the wave energy
- · Successfully optimized the structure by modeling and effectively improved the conversion efficiency
- Made the prototype of the device

## PATENT

Q.C. Song et al, "An electricity generating device by utilizing small wave energy" (submitted 2014)

## Honors and Awards

## National Scholarship (Three times)

2012,2013,2014

Top 1% among all competitors, awarded by Ministry of Education of PRC

#### Outstanding Student of Huazhong Univ. of Sci. & Tech.

2012-2014

Top 1% among all 2nd & 3rd year students, one of the top honor for undergraduates

Merit Student (Three times)

2012,2013,2014

Top 4% among all competitors, issued by HUST

Excellent Award in the 3rd National Water Resource Innovation Design Competition

2013.07

## INTERNSHIP EXPERIENCE

#### Summer Intership at Shangu Power Co., Ltd., Xi'an

2014.06

- Learned details of manufacturing process of tail gas turbine
- Systematically learned the CFD calculation methods for turbine design

## **COMPUTER SKILLS**