

# Qinmin Zheng

Date of Birth: Apr. 5<sup>th</sup>, 1992

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## EDUCATION

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Sep., 2008~Jul., 2012

B.S. in Environmental Science (specialize in Environmental Chemistry), College of Environment and Resources, Jilin University, China

Sep., 2012~Nov., 2013

MSc in Environmental Management and Engineering, Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University

## RESEARCH INTERESTS

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Advanced Materials for Innovative Water & Air purification and Renewable Energy (e.g. Visible-light photocatalysis, Membrane technology, Solar cell)

## RESEARCH EXPERIENCES

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Sep., 2012~present

**Synthesis of visible light responsive photocatalysts and their application on NO degradation**

@ Prof. S. C. Lee's group, Department of CEE, The Hong Kong Polytechnic University

Advisor: Prof. S. C. Lee (E-mail: [ceslee@polyu.edu.hk](mailto:ceslee@polyu.edu.hk))

Co-advisor: Dr. Keith Ho (E-mail: [keithho@ied.edu.hk](mailto:keithho@ied.edu.hk))

- Synthesized a series of photocatalysts based on graphitic carbon nitride ( $g\text{-C}_3\text{N}_4$ ) and characterized the properties: BET analysis, SEM, XRD, UV-vis, etc
- Conducted NO photodegradation experiments under visible light, the highest removal efficiency could reach 40%
- MSc dissertation accomplished

Jun., 2013~Aug., 2013

**Project Assistant of the Hok Tsui Aerosol Project for Environmental Protection Department of Hong Kong (HK EPD)** @ Prof. S. C. Lee's group, Department of CEE, The Hong Kong Polytechnic University

Advisor: Prof. S. C. Lee (E-mail: [ceslee@polyu.edu.hk](mailto:ceslee@polyu.edu.hk))

- Maintained instruments: Ultrafine Particles Monitor (Model 3031 for ultrafine particle measurement), Aethalometer (Model AE31 for aerosols analysis), Nephelometer (Model 3563 for measurement of light scattering properties of atmospheric aerosols) and collected data from them
- Changed and collected filters for Mini Volume and High Volume air samplers

Jun., 2011~Jun., 2012

**Synthesis of organic sensitizers for Dye-sensitized solar cells and devices fabrication** @ Prof.

Peng Wang's group, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences

Advisor: Prof. Peng Wang (E-mail: [peng.wang@ciac.jl.cn](mailto:peng.wang@ciac.jl.cn))

- Synthesized two D- $\pi$ -A zinc porphyrin dyes
- Assembled these dyes to solar cells and characterized their electrochemical and photophysical Properties: UV-vis, Voltammetric Measurement, I-V characterization, Photocurrent Action Spectra, etc
- Bachelor Thesis accomplished

## **PAPER & THESIS**

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FANG Kai, SHEN Wan-bin, **ZHENG Qin-min**, GAO Kai, Liu Jing-shuai, **Ecological Carrying Capacity of Fossil Energy Land**, Environment Science & Technology (Chinese Core Journal, published in Dec., 2011)

**Bachelor Thesis:** Synthesis and Characterization of a novel Zinc Porphyrin Dye for Dye-sensitized Solar Cell (in Chinese, July 2012)

**Master Dissertation:** The synthesis of photocatalysts based on graphitic carbon nitride (g-C<sub>3</sub>N<sub>4</sub>) and their application on NO degradation under visible light (in English, August 2013)

## **AWARDS & HONORS (SELECTED)**

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**2012/13 Entry Scholarship for the Postgraduate Scheme in Construction and Environment, The Hong Kong Polytechnic University** (Cover Tuition Fees and Subsistence Allowance)

**The First Prize Scholarship of Jilin University** (top 5%)

**Outstanding student of Jilin University** (top 5%)

**Outstanding Young Volunteer of Jilin Province** (only 10 university students in Jilin Province per year)