

# YISHEN (EASON) ZHANG

Leuven, Belgium

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## PERSONAL INFORMATION

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**Date of Birth:** 17th Decemeber 1993

**Nationality:** China

**Institution:** Earth and Environmental Sciences, KU Leuven

**Address:** Celestijnlaan 200E, 3001 Leuven

## RESEARCH INTERESTS

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My research uses experimental petrology, numerical modelling, programming, textural analysis and geochemical analysis to understand the magmatic differentiation, stability fields of minerals.

My PhD projects focus on using high temperature high pressure facilities to understand the differentiation of large igneous provinces (LIPs) and 3D textural analysis of minerals to reveal dynamic magmatic processes.

Beside experimental study, I am also interested in software development, data analysis and machine learning with python.

## EDUCATION

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**KU Leuven**

*PhD in Geology*

**06. 2019 – present**

*Leuven, Belgium*

**China University of Geosciences (Beijing)**

*Master in Geology*

**09. 2016 – 05. 2019**

*Beijing, China*

**China University of Geosciences (Beijing)**

*Bachelor in Geology*

**09. 2012 – 07. 2016**

*Beijing, China*

## LABORATORY EXPERIENCE

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**Gas mixing furnace:**

Experienced in high temperature experiments, kinetic experiments

**Piston cylinder apparatus:**

Experienced in 1-2GPa half inch experiments, capsule, assemblage preparation

**Electron microprobe:**

Experienced in instrument calibration, analytical method development, high precision measurement, mapping

**Scanning Electron Microanalysis:**

Imaging of BSE and SE

## PC SKILLS

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Experienced programming in Python and Matlab, including package development, numerical modelling, data analysis. Basic command line commands.

Scientific writing with Words, LaTeX, Overleaf

Basic web application development, including Django, HTML5, CSS.

Experienced in design and editing with Adobe Illustrator, Photoshop, Premiere

## FIELD WORK EXPERIENCE

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**2022** Fogo volcano, (Cape Verde), 1 week

**2018** Changbai Mountain (North China), Tianchi volcano, 2 weeks

**2018** Yunnan (China), Tengchong volcano, 2 weeks

**2018** Emeishan Province (China), 2 weeks

**2018** Zhangjiakou (North China), Yaojiazhuang complex, 1 weeks

**2014** Akesu, Xinjiang (China), Gold deposits, 3 weeks

**2013** Zhoukoudian (China), field mapping courses, 4 weeks

**2012** Beidaihe (China), excursion, 3 weeks

## PRIZES

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- 2018** Institute travel grant for attending Goldschmidt, 2018 (¥12000)  
**2018** National Awards for Excellent Graduate Students (¥30,000, 1%)  
**2014.12** Third prize in professional course. (15%)  
**2014.6** Third prize in professional course. (15%)  
**2014.5** Fourth prize in Institute Scientific Research Activity.

## TEACHING

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- 2021** Soil Science & Geology (practical)  
**2022** Soil Science & Geology (practical)

## SUPERVISION

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- Bachelor** Lander Cuypers, Experimental study of olivine morphology  
**Master** Sarah Stammen, Experimental study of olivine and spinel equilibrium

## PUBLICATIONS

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### *Journal publications*

**Zhang Y**, Hou T, Veksler IV, Leshner CE, Namur O, 2018. Phase equilibria and geochemical constraints on the petrogenesis of high-Ti picrite from the Paleogene East Greenland flood basalt province. *Lithos*, 300-301,20-32.

### *Conference Abstract*

**Zhang Y**, Namur O, Charlier B, Li WR, Shorttle O, Gazel E, Jennings ES, Thy P, Grove TL. A re-evaluation of Al-in-Olivine geothermometer. Goldschmidt 2022

**Zhang Y**, Namur O, Charlier B, 2020. Experimental liquid lines of descent and Silicate Liquid Immiscibility for low-Ti and high-Ti basalts of the Emeishan Large Igneous Province, SW China. AGU 2021.

**Zhang Y**, Namur O, Charlier B, 2020. Experimental liquid lines of descent for low-Ti and high-Ti basalts of the Emeishan Large Igneous Province, SW China. EMPG-XVII 2020.

**Zhang Y**, Hou T, Veksler IV, Leshner CE, Namur O, 2018. Phase equilibria and geochemical constraints on the petrogenesis of high-Ti picrite from the Paleogene East Greenland flood basalt province. Goldschmidt Abstract 2018.

### *In progress*

**Zhang Y**, Namur O, Charlier B, Li WR, Shorttle O, Gazel E, Jennings ES, Thy P, Grove TL. (in prep). A re-evaluation of the Al-in-Olivine geothermometer and application in primitive basalts. Planned submission to CMP

**Zhang Y**, Namur O, Charlier B (in prep). Experimental liquid lines of descent and silicate liquid immiscibility in the Large Igneous Province. Planned submission to CMP

Li W, **Zhang Y** (in prep). PyAp: a python package for calculating magmatic volatile, trace element concentrations, and oxygen fugacity using mineral apatite. Code available at <https://github.com/alexweiranli/pyAp>

Dekoninck A, Rufet G, Baptiste J, Wyns R, Philippo S, **Zhang Y** Namur O. Petrogenesis and  $^{40}\text{Ar}/^{39}\text{Ar}$  dating of epithermal romanechite from the Romanèche Mn deposit (France). under review in *Chemical Geology*

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