Yishen (Eason) ZHANG

Leuven, Belgium

yishen.zhang@kuleuven.be eazzzon yishen_z website

PERSONAL INFORMATION

Date of Birth: 17th Decemeber 1993
Nationality: China
Institution: Earth and Environmental Sciences, KU Leuven
Address: Celestijnlaan 200E, 3001 Leuven

RESEARCH INTERESTS

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

KU Leuven **06. 2019 – present**
PhD in Geology *Leuven, Belgium*

China University of Geosciences (Beijing) **09. 2016 – 05. 2019**
Master in Geology *Beijing, China*

China University of Geosciences (Beijing) **09. 2012 – 07. 2016**
Bachelor in Geology *Beijing, China*

LABORATORY EXPERIENCE

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

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

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

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

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

SUPERVISION

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

PUBLICATIONS

Journal publications

Zhang Y, Hou T, Veksler IV, Lesher 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.

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, Lesher 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 GCA

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

Last edit: 02. Feb. 2022