

# Dian Ji

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## EDUCATION

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**Department of Earth and Planetary Sciences, University of Tennessee**

June 2021 - Present

MS track in Geology

Knoxville, TN

Advisor: Dr. Nicholas Dygert

GPA: 4.0 / 4.0

**College of Geosciences, China University of Petroleum, Beijing**

Sep 2016 - Jun 2020

B.E. in Resource Exploration Engineering

Beijing

Advisor: Dr. Huichuan Liu

GPA: 3.48 / 4.0

Rank: 4 / 117 (Top 3.4%)

## PUBLICATION

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**D. Ji, H.C. Liu, Y.L. Li, (2019)** Large-scale Early Cretaceous lower-crust melting derived adakitic rocks in NE China: implications for convergent bidirectional subduction and slab rollback: *International Geology Review*. doi:10.1080/00206814.2019.1697968

## FORTHCOMING

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**D. Ji, N. Dygert,** Trace element evidence for serial processing of the lunar flotation crust and a depleted bulk Moon. *In Review*

## CONFERENCE ABSTRACTS

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**D. Ji, N. Dygert,** 2022. Serial processing after lunar anorthositic crust formation indicated by rare earth elements in plagioclase. *Lunar and Planetary Science Conference, LIII* #1229.

**D. Ji, N. Dygert,** 2021. Eu anomalies in lunar plagioclase reflect secondary processing by subsolidus reequilibration and introduction of a KREEP component. *Goldschmidt Conference*, #3219.

N. Dygert, **D. Ji**, A.L. Fagan, C.R. Neal, D.S. Draper, J.F. Rapp, T.J. Lapen, 2021. Petrogenesis of and subsolidus reequilibration within lunar ferroan anorthosites: Two demonstrations of a new  $fO_2$ -dependent model for plagioclase-melt europium partitioning. *Lunar and Planetary Science Conference, LII*, #2352.

## CONFERENCE TALKS

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53rd Lunar and Planetary Science Conference, Houston

Mar 2022

31st Goldschmidt Conference, Virtual

Jul 2021

## TRAINING

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**Research Assistant, University of Tennessee**

June 2021 – Present

Supervisor: Dr. Nicholas Dygert

## RESEARCH

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**Research on the trace element partitioning between apatite and silicate melts**

Apr 2022 – Present

- Expanded the dataset of partition coefficients between apatite and silicate melt through high-temperature and high-pressure experiments
- Build predictive models to calculate the partition coefficients of trace elements between apatite and silicate melts.

**Research on the Eu anomalies in lunar plagioclase**

Sep 2020 – Apr 2022

- Compiled published crystallization sequences and cumulate products of lunar magma ocean.
- Numerical modeled the trace element abundances of crystallized plagioclase, and tested the reasons of Eu anomalies by subsolidus reequilibration and KREEP addition.
- Proposed a post-LMO model to explain the petrogenesis of lunar anorthosites and reconcile the trace elements and isotopic evidence, as well as the overlap in ages of Mg-suite, KREEP basalt and ferroan anorthosites.

#### **Laboratory Work and Visiting in UT Dallas**

Jul 2019 - Sep 2019

- Worked in the Global Magmatic and Tectonic Research Laboratory with Dr. Robert Stern at UT Dallas on the project aims at determining the petrogenesis of all the Early Cretaceous adakites in China

#### **Research on Petrogenesis of Early Cretaceous Adakites in Northeast China**

Oct 2018 - Apr 2019

- Aimed at figuring out the controversial tectonic settings in NE China by confirming the petrogenesis of the large-scale Early Cretaceous adakitic rocks
- Compiled the temporal and spatial distribution as well as the major elements, trace elements and Sr-Nd, Lu-Hf isotopic data about the Early Cretaceous adakites
- Proposed a convergent bidirectional subduction model to explain the tectonic settings

### **FIELD EXPERIENCE**

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#### **McClung Blue Ridge Foothills Field Trip**

2022

- Looked at part of the transition from the external foreland fold-thrust belt of the Appalachians into the internal metamorphic core led by Dr. Bob Hatcher

#### **Archean Basic Rock Collection, Miyun**

2019

- Collected Archean garnet pyroxenite
- Measured geological occurrence of basic dyke group led by Dr. Huichuan Liu

#### **Field Practice in Oilfield, Dagang Oilfield**

2019

- Learned the working methods of oilfield engineers and interpretation of seismic data and logging data for two weeks

#### **Comprehensive Geological Field Practice, Liujiang Basin**

2018

- Geological field practice includes survey of stratigraphic profiles and geological mapping, and observation of structural geological phenomena for a month Dr. Liang Luo
- Analyzed the structure phenomena logically and drew geologic maps adeptly with CorelDraw

#### **General Field Practice, Western Hills of Beijing**

2017

- Geological field practice for learning to recognize magmatic rocks, sedimentary rocks, metamorphic rocks for two weeks led by Dr. Qin Zhang
- Described how rock and fossil evidence are used to infer Earth's history

### **HONORS & AWARDS**

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| • Jimmy Walls Colloquium Presentation Award   | 2022 |
| • Li Siguang Outstanding Student Award  | 2020 |
| • Beijing Excellent Senior Thesis Award   | 2020 |
| • Dean's Nomination Award of College of Geosciences, China University of Petroleum            | 2020 |
| • First-class Scholarship of China University of Petroleum                                    | 2019 |
| • Second Prize in Tectonic Knowledge Competition of China University of Petroleum             | 2019 |
| • Oriental Geophysics Company Scholarship   | 2018 |
| • First Prize of the 2018 "FLTRP Cup" English Reading Contest                                 | 2018 |
| • Third Prize of Comprehensive Geological Skills Competition of China University of Petroleum | 2018 |
| • Second Prize in Tectonic Knowledge Competition of China University of Petroleum             | 2018 |
| • Third Prize in General Geology Knowledge Competition of China University of Petroleum       | 2018 |
| • Second-class Scholarship of China University of Petroleum                                   | 2017 |

## SKILLS

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- MATLAB, R, C/C++, Adobe Illustrator, Photoshop, CorelDRAW, Grapher, Surfer, Iqpet
- Piston Cylinder, Scanning Electron Microscope, Electron Probe Microanalyzer, LA-ICP-MS