

Dian Ji

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EDUCATION

Department of Earth and Planetary Sciences, University of Tennessee

MS track in Geology

Advisor: Dr. Nicholas Dygert

GPA: 4.0 / 4.0

June 2021 - Present

Knoxville, TN

College of Geosciences, China University of Petroleum, Beijing

B.E. in Resource Exploration Engineering

Advisor: Dr. Huichuan Liu

GPA: 3.48 / 4.0

Rank: 4 / 117 (Top 3.4%)

Sep 2016 - Jun 2020

Beijing

PUBLICATION

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

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

D. Ji, N. Dygert, Trace element partitioning between apatite and silicate melts. *In Preparation*

CONFERENCE ABSTRACTS

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

53rd Lunar and Planetary Science Conference, Houston

Mar 2022

31st Goldschmidt Conference, Virtual

Jul 2021

TRAINING

Teaching Assistant, University of Tennessee

GEOL310: Mineralogy

Aug 2022 – Present

Research Assistant, University of Tennessee

Supervisor: Dr. Nicholas Dygert

June 2021 – July 2022

RESEARCH

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 piston cylinder experiments
- Built 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

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 |

SERVICE

Journal Reviewer

American Mineralogist; International Geology Review (×2)

FIELD EXPERIENCE

McClung Blue Ridge Foothills Field Trip

2022

- Observed 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

SKILLS

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