

LIANG Xueyin

E-mail: liangxueyin@email.cugb.edu.cn * *Place of birth:* Chengdu, China

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EDUCATION

China University of Geosciences, Beijing
M.Sc. in Geology (Orientation: Geochemistry)

September 2023 - June 2026
Beijing, China

- **Average Score:** 90.42/100 | **Rank:** 3/137
- Graduate School Applicant: Selected for the University's Outstanding Undergraduate Comprehensive Training Program (rank 1)
- Core Courses: Petrogeochemistry (98), Geochemical thermodynamics (91.2)

Peking University

Minor in Economics, National School of Development

September 2021 - June 2024
Beijing, China

- GPA: 3.43/4.00, Awarded Outstanding Student Assistant (2024)
- Awarded early admission to Baruch MFE (Master of Financial Engineering) program through the NSD-Baruch Summer Camp and gained foundational training in machine learning.
- Related Courses: Urban Economics (93), Advanced Research Seminar (Honor) (85)

China University of Geosciences, Beijing
B.Sc. in Geochemistry (Major)

September 2019 - June 2023
Beijing, China

- **Average Score:** 90.96/100 | **Rank:** 6/217
- Core Courses: Chemistry (96), Probability and Statistics (96.4), Geological Survey Field Trip in Zhoukoudian (95), Petrochemistry (95), Crystallography and Mineralogy (94.5), Geochemistry (90.5)

PUBLICATIONS

First-author:

- Liang, X.Y., Wang, W., Yao, J.C., Gao, L., Yang, W.B., Hu, J.C., He, X. Identification of modern-style plate subduction during the Archean: a perspective from metavolcanic rocks (will be submitted before Nov. 30th, 2025, **oral presentation at CGU-2025**).

Co-author:

- Wang, W., Lu, Y.J., Gao, L., Sun, G.Z., Zhou, X.Z., Yao, J.C., Yang, W.B., Liang, X.Y., 2024. Late Archean K-rich intermediate magmatism driven by deep supracrustal recycling. Chemical Geology, 122215.
- He, X., Gao, L., Wang, W., Yao, J.C., Yang, W.B., Sun, G.Z., Guo, R.R., Zhou, X.Z., Hu, J.C., Liang, X.Y., 2024. Early to middle Neoarchean tonalite-trondhjemite-granodiorite (TTG) formation and outward continental growth in the North China Craton. Precambrian Research 405, 107378.
- Wang, W., Cawood, P.A., Liu, S.W., Lu, D.G., Liang, X.Y., et al., 2025. First-order control of basaltic sources on the diversity of Archean TTG magmatism. Chemical Geology (Under review).
- Gao, L., Wang, W., Liu, S.W., ...Liang, X.Y., et al., 2025. Convergence of two ancient continental nuclei induced by late Neoarchean multiple subduction systems. Geological Society of America Bulletin (Under review).
- Wang, T.X., Gao, L., Cawood, P.A., Liu, S.W., Wang, W., Barboni, M., Liang, X.Y., et al., 2025. Detrital zircon archives and the early Earth's system: A review (In preparation).

ACADEMIC EXPERIENCE

Identification of modern-style plate subduction during the Archean:

a perspective from metavolcanic rocks

September 2023 - Present

Master Project, CUGB

- Discovered late Neoarchean boninitic rocks from the Jiaobei terrane, North China Craton.
- Proposed initiation of a late Neoarchean plate subduction system in the Jiaobei terrane.
- Illustrated diachronous development of Archean modern-style plate subduction globally by investigating the petrogenesis of Archean boninitic rocks and mantle properties.

First-order control of basaltic sources on the diversity of

Archean TTG magmatism

September 2023- Present

Main participant, CUGB

- Modeled the petrogenesis of TTG gneisses using PerpleX to quantitatively constrain the P-T conditions of partial melting from a thickened lower crust.
- Applied a weighted bootstrap resampling algorithm in python and R to analyzed the compositional variations and correlations of global Archean metabasalts and TTGs.

Petrogenesis and geodynamic regimes of Mesoarchean metavolcanic rocks

in the Jiaobei terrane

October 2020 - May 2022

Undergraduate thesis, Provincial-level Innovation Training Program, CUGB

- Based on comprehensive investigations of Mesoarchean metabasaltic rocks from the Jiaobei terrane, we proposed a tectonic setting related to plate subduction during the Mesoarchean.
- Awarded **Outstanding Undergraduate Thesis (top 5%)**, CUGB.

The Fourth Non-traditional Stable Isotope Geochemistry Summer School

August 2022

Nanjing University

- Studied the applications of non-traditional stable isotopes in geology, environmental science, and archaeology, gaining insights into key research achievements and emerging trends.
- Completion with **distinction** academic performance.

SELECTED HONORS & AWARDS

- **Honors:** National Scholarship (Undergraduate, top 0.2%), Outstanding Undergraduate Thesis (top 5%), Silvercorp Mining Scholarship (twice, top 2%), First/Second-Class Professional Scholarship (9 times, top 5%/top 10%), Merit Students (3 times).
- **Awards:** First Prize in the *Beijing Social Practice and Science Competition on Energy Conservation and Emission Reduction* for the College Student Competition, Second Prize in *Mathematical Modeling Competition*, CUGB.

SKILLS & LANGUAGES

Programming/Tools Experiment

R, STATA, C++, Python, Matlab, SPSS, PerpleX, L^AT_EX, Markdown
Optical microscopy, X-ray fluorescence (XRF) analysis, Laser ablation
inductively coupled mass spectrometry (LA-ICP-MS)

Languages

Mandarin (native), English (CET-6: 526)

EXTRACURRICULAR ACTIVITIES

Key Laboratory of Earthquake Warning in Sichuan Province

Institute of Care-life

January 2022

Chengdu, China

- Researched the impact of the *AI+Disaster Warning* emergency management system and the development of mega-disaster scenarios in urban applications on the advancement of the digital economy.

Academy of CUGB

April 2022 - June 2023

- Peer tutor for *Probability and Statistics*