

Jia-Ping Liao (Chia-Ping Liao)

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CURRENT AFFILIATION

Postdoctoral researcher / the Institute of Earth Sciences, Academia Sinica, Taiwan.

Research projects: (1) In-Situ Apatite Sr-Nd Isotopic and Rare Earth Element Geochemistry in Igneous Rocks from the Coastal Range of Eastern Taiwan: Deciphering Magmatic Evolution from Subduction Initiation to Arc-Continent Collision (Supervisors: Dr. Hao-Yang Lee, Prof. Sun-Lin Chung, Prof. Yu-Ming Lai). (2) Tracing the genesis of the Halmahera Ophiolite and its links with the evolution of the Philippine Sea Plate (Supervisor: Prof. Sun-Lin Chung).

EDUCATION

2020/03 – 2024/09	Ph.D. , Faculty of Science, School of Earth, Atmosphere and Environment, Monash University , Australia.
2014/09 – 2017/06	Master of Science , Department of Geosciences, National Taiwan University (NTU) , Taipei, Taiwan.
2010/09 – 2014/06	Bachelor of Science , Department of Earth Science, National Cheng Kung University (NCKU) , Tainan, Taiwan.

RESEARCH INTERESTS

Formation of oceanic crust and ophiolites
Preservation and evolution of mantle heterogeneities
Subduction zone processes
Arc volcanism and accretionary orogeny
Mantle-crust interaction

AREAS OF RESEARCH

Igneous Petrogenesis
Sr-Nd-Hf Isotope Geochemistry
Apatite Nd Isotope and REE Geochemistry
Zircon U-Pb Geochronology
Western Pacific Tectonics

PhD projects:

Project 1: Liao, J.-P., Cawood, P. A., Nebel, O., Chung, S. L., Kadarusman, A., Maruyama, S., Wang, X., Lee, H.-Y. A reappraisal on the spreading history and tectonic setting of the East Sulawesi Ophiolite.

Project 2: Liao, J.-P., Nebel, O., Chung, S. L., Kadarusman, A., Maruyama, S., Wang, X., Cawood, P. A. Precambrian zircon xenocrysts in Cretaceous Sulawesi back-arc melts document the mantle record of a subducted sediment mélange.

Project 3: Liao, J.-P., Nebel, O., Bruand, E., Cawood, P. A., Wang, X., Chung, S. L., Raveggi, M., Kadarusman, A., Maruyama, S. Rare Earth Element and Nd isotope systematics of apatite from oceanic gabbros: a case study from the East Sulawesi Ophiolite.

PUBLICATIONS

1. C.-P. Liao (J.-P. Liao). Origin of the East Sulawesi Ophiolite, Eastern Indonesia: implications for oceanic crust generation and tectonic reconstruction in the Western Pacific. PhD thesis. Monash University. Sep, 2024.
2. **Liao, J. P.**, Jahn, B. M., Alexandrov, I., Chung, S. L., Zhao, P., Ivin, V., & Usuki, T. (2018). Petrogenesis of Mid-Eocene granites in South Sakhalin, Russian Far East: Juvenile crustal growth and comparison with granitic magmatism in Hokkaido and Sikhote-Alin. *Journal of Asian Earth Sciences*, 167, 103-129. [A Special Issue in Memory of Professor Bor-ming Jahn for His Scientific Contributions and Service to JAES Part 2] <https://doi.org/10.1016/j.jseae.2018.05.020>
3. Alexandrov, I. A., **Liao, J.-P.**, Jahn, B.-M., Golozubov, V.V., Ivin V.V., Stepnova, Yu. A (2018). Eocene Granitoids of the Okhotsk Granodiorite Complex (South Sakhalin). *Doklady Earth Sciences*, 483, Part 2, 1499–1503. <https://doi.org/10.1134/S1028334X18120103>
4. Zhao, P., Alexandrov, I., Jahn, B. M., **Liao, J. P.**, Ivin, V. (2019). Late Eocene granites in central Sakhalin Island (Russian Far East) and its implication for evolution of the Sakhalin-Hokkaido orogenic belt. *Lithos*, 324-325, 684-698. <https://doi.org/10.1016/j.lithos.2018.12.002>

CONFERENCE PRESENTATIONS (First Author)

1. Oral Presentations:

ICDP Australia Workshop, Adelaide, Australia, 13-14 June, 2024.

Lightning talk: Tracing the origin of the East Sulawesi Ophiolite, eastern Indonesia: tectonic links with Australia.

Goldschmidt Conference, Lyon, France, 10 to 14 August 2023.

Geochronological and geochemical constraints on the East Sulawesi Ophiolite with implications for tectonic reconstructions in Southeast Asia

Annual Conference 2018, *Geochemical Society of Japan (GSJ)*, Okinawa, Japan.

Petrogenesis of Mid-Eocene granites in South Sakhalin, Russian Far East: Juvenile crustal growth and comparison with granitic magmatism in Hokkaido and Sikhote-Alin

2. Poster Presentations:

AOGS 2026 (Annual Meeting of the Asia Oceania Geosciences Society), Fukuoka, 2-8 August, 2026.

Hidden in the Rare Earth Elements: Apatite Geochemistry of Ophiolitic Gabbros Reveals Crustal Signatures Inaccessible to Nd Isotopes

International conference in memory of Prof. Bor-Ming Jahn, Taipei, 6-7 November, 2017.

Eocene granites in South Sakhalin, Russian Far East: tectonic implications and geochemical correlation with the Hokkaido Island.

Goldschmidt Conference, Paris, France, 13 to 18 August 2017.

Eocene granites in South Sakhalin, Russian Far East: Correlation with the Hokkaido Island.

Annual International Assembly, *European Geosciences Union (EGU)*, Vienna, Austria, 18 to 22 April 2016.

Eocene Granitoids of the Okhotsk Complex in Sakhalin Island, Russian Far East: Petrogenesis and tectonic implications from zircon U-Pb ages, geochemical and Sr-Nd isotope characteristics.

WORKING/TEACHING EXPERIENCES

2025/09 – 2026/08

Department of Earth
Sciences, National Taiwan
Normal University

Postdoctoral Researcher.

1. Developed In-Situ Apatite Sr-Nd Isotopic analytical techniques for Mafic Igneous Rocks
2. Applied the technique to a case study of apatite Nd isotope signatures of volcanic rocks from the Coastal Range of Eastern Taiwan

2017/06 – 2019/12

Department of Geosciences,
NTU and Institute of Earth
Sciences, Academia Sinica

Research assistant.

1. Operated MC-ICP-MS to conduct Sr-Nd isotope analyses and performed chemical separations in the cleanroom. (PI: Prof. Sun-Lin Chung)
2. Compiled final project reports (PIs: Prof. B. M. Jahn; Ching-Hua Lo; Kuo-Lung Wang).

2016/09 – 2017/01

Department of
Oceanography, NTU

Teaching assistant, Basics of Geochemical Data and Analyses in Petrology.

Instructor: Prof. Mei-Fei Chu

HONORS & ACHIEVEMENTS

1. Outstanding Student for Academic Achievement, NCKU (2012-2013)
2. Memorial Scholarships for Prof. Vei-Chow C. Juan, Department of Geosciences, NTU (2014 and 2015).
3. Young BPW Scholarship 2016, the Federation of Business and Professional Women (BPW), Taiwan.

PROFESSIONAL AFFILIATIONS

1. Society of Economic Geology (SEG): Monash Student Chapter Secretary (2021-2023)
2. The Geological Society of Australia (GSA) Membership (2022 – 2025)
3. European Association of Geochemistry (EAG) (2017– 2024)
4. Geological Society of Taiwan (2016/05- present)

SIGNIFICANT EXTRACURRICULAR ACTIVITIES

1. **MOOC Explorer Studio internship, the Center for Teaching and Learning Development, NTU** (2017/06 – 2018/01).

Promoting and developing massive open online courses (MOOCs) at NTU for self-learning and public education.

Exploring creative education methods like learner-based course design, peer-grading rubrics, and flipping a classroom (team-based learning).

2. **Toastmasters International English Speech Club** (2013-2014, 2015).
Delivered 8 public speeches (7-12 min) on prepared topics with specific leadership and communication goals.
3. **Exhibition of Earth Science in NCKU** (2010, 2012) / **Earth Science Camp in NCKU** (2011, 2012).
Enhanced the ability to introduce geological knowledge to the public, especially kids. / Led senior high school students to engage in our well-designed lectures and activities to inspire them to explore more interests in Earth Sciences.
4. **Philanthropy club in NCKU** (2012/09 – 2013/02)
Location: Renguang Elementary School, Yanshuei District, Tainan
Taught elementary students through a series of designed courses and accompanied them by reading books together.
5. **English tutoring volunteer service for children in NTU** (2016/09 – 2017/01)
Location: Taipei Municipal Mingchuan Elementary School
Taught an elementary student to read textbooks and storybooks in English two times every week.