

Wen-Han Lo

**Postdoctoral Researcher, Institute of Earth Sciences, Academia Sinica
(specialty: metamorphic petrology, geochemistry, and geochronology)**

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MY RESEARCH

My research interests center on how rocks form in subduction zones and orogenic belts, and on extracting the information they record through combining petrographic and geochemical characterization (e.g., textural and compositional analysis of minerals and rocks), petrological forward modeling, and geochronological techniques. I am fascinated by what metamorphic rocks can tell us about the processes operating within the Earth.

My doctoral research focused on the Yuli metamorphic belt in eastern Taiwan, one of the youngest known high-pressure (HP) terranes in the world. I have carried out extensive field- and laboratory-based investigations on various metamorphic rock types in eastern Taiwan, and published scientific papers that improved our understanding of the tectonic evolution of these metamorphic rocks, from subduction initiation to arc–continent collision over the past ~20 Myr. I currently study high-grade metamorphic basement rocks in Southeast Asia, as part of a research team led by Prof. Sun-Lin Chung at the Institute of Earth Sciences, Academia Sinica.

EDUCATION

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| 2020–2026 | Ph.D. in Metamorphic Geology, National Dong Hwa University, Taiwan
Dissertation: Metamorphic History and Protolith Nature of High-Pressure Metamorphic Rocks in the Yuli Belt, eastern Taiwan [link]
Advisor: Prof. Chin-Ho Tsai; Co-advisor: Prof. Sun-Lin Chung |
| 2024–2025 | Visiting Ph.D. student, Friedrich Schiller University Jena, Germany
Project: Lu–Hf garnet geochronology of Miocene high-pressure rocks from Taiwan
Advisor: Prof. Kamil Ustaszewski; Co-advisor: Prof. Carsten Münker |
| 2015–2018 | M.S. (Geology), National Dong Hwa University, Taiwan
Advisor: Prof. Chin-Ho Tsai |

EMPLOYMENT

- 2026–present Postdoctoral Researcher, Institute of Earth Science, Academia Sinica, Taipei, Taiwan
- 2020–2026 Part-Time Research Assistant, Petrology and GeoMicroanalysis Lab, National Dong Hwa University, Taiwan
- 2019–2020 Taiwan Mandatory Alternative Civilian Service (Fire Department, Taitung County)

AWARDS

- 2026 Excellent Student Poster Presentation Award – Geological Society of Taiwan
- 2024 Ph.D. Student Study Abroad Program Grant
 – National Science and Technology Council of Taiwan
- 2021 Juan V.C. Outstanding Master’s Thesis Award – Geological Society of Taiwan

EXPERTISE

- ❖ Petrographic characterization and mineral chemical analysis (SEM–EDS and EPMA)
- ❖ Whole-rock major- & trace-element analysis (XRF & ICP-MS)
- ❖ Petrological forward modeling (Perple_X & Theriak/Domino)
- ❖ Geothermobarometry
- ❖ In-situ U–Pb zircon geochronology
- ❖ Lu–Hf garnet geochronology

PUBLICATIONS

- ❖ **Wen-Han Lo**, Chin-Ho Tsai¹, Carsten Münker, Kamil Ustaszewski, Thorsten Nagel, Yoshiyuki Iizuka, Arathy Ravindran, Gaurav Singh Papola, Hao-Yang Lee, Sun-Lin Chung, Miocene High-Pressure Metamorphism in eastern Taiwan: Constraints from Lu–Hf Garnet Geochronology and Phase Equilibrium Modeling ([under review, *Journal of Metamorphic Geology*](#))
- ❖ **Wen-Han Lo**, Chin-Ho Tsai, Ioannis Baziotis, Sun-Lin Chung, Chiao Liu, Yoshiyuki Iizuka, Hao-Yang Lee (2025) Effects of Bulk-Rock Chemistry on Paragonite Stability in High-Pressure Epidote-Amphibolites from the Yuli Metamorphic Belt, Taiwan. *Contributions to Mineralogy and Petrology*, 180, no. 34. <https://doi.org/10.1007/s00410-025-02228-2>
- ❖ **Wen-Han Lo**, Chin-Ho Tsai, Sun-Lin Chung, Xian-Hua Li, Qiu-Li Li, Hao-Yang Lee, Chi-Yu Lee, Yoshiyuki Iizuka (2022) Petrographic, Geochemical, and Geochronological Characteristics of

Metaplagiogranites from a High-Pressure Mélange in the Yuli Belt, eastern Taiwan: Evidence for an Early Miocene Igneous Precursor. *Lithos*, 428–429, 106829. <https://doi.org/10.1016/j.lithos.2022.106829>

MANUSCRIPTS IN PREPARATION

- ❖ **Wen-Han Lo**, Chin-Ho Tsai, Yoshiyuki Iizuka, Yui Kouketsu, Sun-Lin Chung, First Report of Oscillatory-Zoned Metapelitic Garnet Rim in the Yuli Belt, eastern Taiwan: A Record of Pulsed Fluid Flow in a Paleo-Subduction Zone? (in preparation for submission to *Journal of Asian Earth Sciences*)

CONFERENCE ABSTRACTS (SELECTED)

- Dominikus Deka Dewangga, **Wen-Han Lo**, Chin-Ho Tsai, Yui Kouketsu, Yoshiyuki Iizuka, Hao-Yang Lee (2025) Amphibole-albite rock in a metasomatic zone: a record of subduction metamorphism at the slab-mantle interface and its tectonic implications. *Japan Geoscience Union Annual Meeting*, SMP25-06.
- **Wen-Han Lo**, Chin-Ho Tsai, Dominikus Deka Dewangga (2023) On the peak metamorphic conditions of the Yuli belt, eastern Taiwan: new constraints using garnet isopleths. *General Assembly of the European Geosciences Union*, EGU23-12855.

WORKSHOP ATTENDANCE

- 2023 Understanding Deep Crustal Processes (Jan 30–Feb 1)
- 2020 PTt trajectory of metamorphic processes (Dec 2–3)

FIELD EXPERIENCES

- Field investigations of high-pressure (*HP*) and high-temperature (*HT*) metamorphic rocks in eastern Taiwan (Yuli belt and Tailuko belt) during M.Sc. and Ph.D. research (2015–2025), conducted independently and in collaboration with domestic and international research groups
- Field courses led by Prof. Kamil Ustaszewski on metasedimentary sequences in central Germany (2025.03) and *HP*–ultra-high-pressure (*UHP*) metamorphic rocks in the Erzgebirge region (2025.06)
- Field trips on volcanic–plutonic and metamorphic rocks in Sulawesi and Seram Island, Indonesia, with Prof. Sun-Lin Chung’s research group (2018.09 & 2023.09)