

# Chin-Ho Tsai

Department of Natural Resources and Environmental Studies  
National Dong Hwa University  
No. 1, Sec. 2, Da Hsueh Rd., Shoufeng, Hualien 97401, TAIWAN  
Email: tsaich@mail.ndhu.edu.tw  
Office phone: +886-3-8905180 Fax: +886-3-8900157

## **EDUCATION**

Ph.D. Stanford University, 1998  
B.S. National Taiwan Normal University, 1990

## **FELLOWSHIPS, GRANTS, AND AWARDS**

Granted Research Projects, National Science Council (NSC)/ Ministry of Science and Technology (MOST), Taiwan (2001–2026)  
Recognition of Excellent Teaching, College of Environmental Studies, National Dong Hwa University (2018, 2021)  
Research Award, National Dong Hwa University (2013, 2017, 2019, 2021)  
Research Award, National Science Council, Taiwan (2001)  
Post-doc Fellowship, National Science Council, Taiwan (1998–2000)  
Shell Fund Research Grant, Stanford University (1997)  
R.H. Anderson Teaching Assistantship, Stanford University (1996–1997)  
McGee Graduate Research Grant, Stanford University (1994 and 1995)  
Government Scholarship, Ministry of Education, Taiwan (1993–1996)

## **RESEARCH AND ACADEMIC INTERESTS**

Metamorphic Petrology, Electron-beam Microanalysis, Optical Petrography, Petrotectonics, Geochemistry

## **TEACHING, RESEARCH AND ADMINISTRATIVE EXPERIENCE**

Associate Professor, National Dong Hwa University (NDHU), 2013–present  
Principle Investigator, NSC/MOST-funded research projects, 2001–present  
Assistant Professor, National Dong Hwa University (NDHU), 2008–2013  
Visiting Scholar, Department of Natural Resources Development and Agricultural Engineering, Agricultural University of Athens, Greece, 2025  
Visiting Scholar, Institute of Geosciences, Faculty of Chemistry and Geosciences, University Jena, Germany, 2024  
Editorial Board, Geology (GSA), 2018–2021

Scientific Committee Member, TSK Conference 2018, Jena, Germany, 2017–2018  
Organizing Committee, Comparative Studies of Tectonophysics of Taiwan and  
West-Ireland Orogenies Workshop, Taipei, 2017  
Committee Member, Geochemical Core Facility Management System, NSC/MOST,  
2007-present  
Supervisor, PGML's SEM-EDS Laboratory, NHLUE/NDHU, 2005–present  
Session Co-convener and Co-chair, JpGU Meeting, Chiba, Japan, 2018, 2019  
Guest associate editor of special issue, Lithos, 2017–2018  
Committee Member, International Affairs, College of Environmental Studies, NDHU,  
2016–2018; 2019–2022  
Visiting Scholar, CNEAS, Tohoku University, Japan, 2017  
Session Co-convener and Co-chair, JpGU-AGU Joint Meeting, Chiba, Japan, 2017  
Graduate Thesis Committee Member, National Taiwan University, 2016  
Session Chair, the 8<sup>th</sup> World Chinese Geosciences Conference, Taipei, 2015  
Guest associate editor of two special issues, Journal of Asian Earth Sciences,  
2011–2012  
Session Convener and Chair, Asia Oceania Geosciences Society Meeting, Taipei,  
2011  
Session Convener and Chair, Western Pacific Geophysics Meeting, Taipei, 2010  
Guest Instructor (Metamorphic Petrology course), Department of Geosciences,  
National Taiwan University, 2010  
Mentor, East Asia and Pacific Summer Institutes for U.S. Graduate Students program,  
NSF (USA), 2009  
Assistant Professor, National Hualien University of Education (NHLUE), 2005–2008  
Committee Member, Task Force of School Development, NHLUE, 2006–2008  
Committee Member, Task Force of Academic Affairs, NHLUE, 2006–2007  
Library Committee Member, NHLUE, 2005–2008  
Assistant Professor, National Hualien Teachers College (NHLTC), 2000–2005  
Graduate Thesis Committee Member, National Cheng Kung University, 2005, 2009  
Graduate Thesis Committee Member, National Sun Yat-sen University, 2005  
Committee Member, Task Force of School Development, NHLTC, 2003–2004  
Director of the Office of Publication, NHLTC, 2001–2002  
Editor-in-chief of the Journal of NHLTC, 2001–2002  
Special Assistant, the Dean's Office of Student Affairs, NHLTC, 2000–2001  
Adjunct Assistant Professor, Yuan Ze University, 2000  
Post-doc Researcher, National Taiwan University, 1998–2000  
Guest Assistant Editor, Journal of Asian Earth Sciences, 1999  
Research Assistant, Stanford University, 1997–1998

Teaching Assistant, Stanford University, 1996–1997  
Second Lieutenant, ROC (Taiwan) Army, 1991–1993  
Teaching Assistant, National Taiwan Normal University, 1990–1991

### **PROFESSIONAL MEMBERSHIPS**

American Geophysical Union  
Geological Society of America  
Mineralogical Society of America  
Geochemical Society  
Geological Society of Taiwan  
Chinese Geoscience Union (Taiwan)

### **INVITED PRESENTATIONS/LECTURES**

2025 Agricultural University of Athens (Department of Natural Resources  
Management and Agricultural Engineering), Greece  
2025 Academia Sinica (Frontiers in Solid Earth Geochemical Research Workshop)  
2023 Academia Sinica (Taiwan Mountain Belt Workshop)  
2022 National Central University (Department of Earth Sciences)  
2022 Japan Geoscience Union Meeting (online)  
2021 Academia Sinica (Institute of Earth Sciences)  
2020 National Taiwan University (Department of Geosciences)  
2019 Nagoya University (Department of Earth & Planetary Sciences), Japan  
2018 National Cheng Kung University (Taiwan Orogeny Workshop)  
2018 Nagoya University (Department of Earth & Planetary Sciences), Japan  
2018 National Taiwan University (Department of Geosciences)  
2018 University of Jena, Symposium of Tectonics, Structural Geology and Crystalline  
Geology (TSK 2018), Germany  
2018 Academia Sinica (Comparative Studies of Tectonophysics of Taiwan and  
West-Ireland Orogenies Workshop)  
2017 Tohoku University (Center for Northeast Asian Studies), Japan  
2017 Academia Sinica (Tectonics of Taiwan Workshop)  
2016 Nagoya University (Institute for Space-Earth Environmental Research), Japan  
2016 MMFF2016 Okayama International Symposium, Japan  
2015 National Cheng Kung University (Department of Resource Engineering)  
2015 National Taiwan Ocean University (Institute of Applied Geosciences)  
2012 National Chung Cheng University (Department of Earth and Environmental  
Sciences)  
2012 National Taiwan University (Department of Geosciences)

2011 GFZ Research Center for Geosciences in Potsdam, Germany  
2010 National Taiwan University (Department of Geosciences)  
2010 Academia Sinica (Taiwan International Graduate Program)  
2009 Academia Sinica (Institute of Earth Sciences)  
2009 Taroko National Park Headquarters  
2009 National Central University (Department of Earth Sciences)  
2008 Bureau of Mines, MOEA  
2006 National Cheng Kung University (Department of Earth Sciences)  
2006 National Sun Yat-sen University  
2004 National Cheng Kung University (Department of Earth Sciences)  
2000 National Taiwan Normal University (Department of Earth Sciences)  
1999 National Museum of Nature Science  
1999 National Taiwan Ocean University  
1998 National Taiwan University (Department of Geology)

#### **CURRENT GRADUATE STUDENTS**

Lo, Wen-Han (PhD candidate)  
Dominikus Deka Dewangga (PhD candidate)  
Harshal Netaji Babar (PhD student)

#### **FORMER GRADUATE STUDENTS/THESES**

Lee, Yi-Jen: Petrologic characterization and petrogenesis of impure marbles in the Tailuko Belt (MS 2024)  
Liou, Kang-Wen: Petrological and geochemical characteristics of chloritoid rocks and metabasites in the Tailuko Belt (MS 2024)  
Wang, Ya-Fang: Using multi-thermobarometry to constrain the metamorphic conditions of garnet pelitic schists in the Tailuko belt (MS 2023)  
Enggar Wisnu Cahyaning Ratri: Petrographic characterization and P-T constraints on metamafic rocks from the Wanjung block of the Yuli belt, eastern Taiwan (MS 2022)  
Dominikus Deka Dewangga: Petrological characterization of serpentinites and related rocks from the Yuli belt, eastern Taiwan (MS 2019)  
Yeh, Chih-Ying: New constraints and interpretations on peak pressure-temperature conditions of metasedimentary rocks in the Yuli belt, eastern Taiwan (MS, 2019)  
Lo, Wen-Han: Zircon U-Pb geochronological constraints and whole-rock geochemical characteristics of metamorphic rocks in the Chinshuichi area of the Yuli belt, eastern Taiwan (MS 2018)

- Liu, Chiao: Equilibrium phase modeling and P-T constraints of meta-mafic rocks from the Tamayen area of the Yuli belt in eastern Taiwan (MS 2018)
- Keyser, William: Petrology and equilibrium phase modeling of metamorphic rocks from the Chinshuichi area of the Yuli belt in eastern Taiwan (MS 2015)
- Huang, Jia-Wei: Petrologic characterization of amphibolites and mafic enclaves in metagranitoids in the Nanao area, NE Taiwan (MS 2013)
- Huang, Huei-Ting: Metamorphic evolution and geologic implications of in-situ schists and mafic rocks in the Juisui area, Yuli belt, eastern Taiwan (MS 2013)
- Lan, Ching-Hung: Petrological and geochemical characterization of tectonic blocks in the Yuli belt, eastern Taiwan (MS 2011)
- Hung, Chi-Feng: Metamorphism and tectonic implications of garnet-bearing rocks in the Hoping area, eastern Taiwan (MS 2010)
- Kuo, Yen-Lin: Characterization of sub-micron precipitates in clinopyroxene in garnet-cpx rocks from the North Dabie Complex (MS 2009)
- Hsu, Lin: Petrographic and mineral chemistry of metamorphic rocks of the Douling complex, east Qinling (MS 2008)

#### **INTERNATIONAL CONFERENCE PRESENTATIONS**

- 2025 Penrose/IEC-15 Conference, Rohnert Park, California, USA
- 2024 International Geological Congress, Busan, Republic of Korea
- 2022 JpGU Conference, Chiba, Japan (online)
- 2019 American Geophysical Union Fall Meeting, San Francisco, USA
- 2019 JpGU Conference, Chiba, Japan
- 2018 JpGU Conference, Chiba, Japan
- 2018 University of Jena, TSK 2018 Symposium, Germany
- 2017 JpGU-AGU Joint Meeting, Chiba, Japan
- 2016 Goldschmidt Conference, Yokohama, Japan
- 2015 Goldschmidt Conference, Prague, Czech Republic
- 2014 Geological Society of America Annual Meeting, Vancouver, Canada
- 2013 GSA Cordilleran Section Annual Meeting, Fresno, California, USA
- 2012 MISASA-IV International Symposium, Kurayoshi, Japan
- 2011 Asia Oceania Geosciences Society Meeting, Taipei, Taiwan (session chair)
- 2010 Western Pacific Geophysics Meeting, Taipei, Taiwan (session chair)
- 2008 Goldschmidt Conference, Vancouver, Canada
- 2007 Goldschmidt Conference, Cologne, Germany
- 2005 American Geophysical Union Fall Meeting, San Francisco, USA
- 2004 The 32nd International Geological Congress, Florence, Italy
- 2003 International Eclogite Field Symposium, Selje, Norway

2001 American Geophysical Union Fall Meeting, San Francisco, USA  
1999 American Geophysical Union Fall Meeting, San Francisco, USA  
1998 Western Pacific Geophysics Meeting, Taipei, Taiwan  
1997 Geological Society of America Annual Meeting, Salt Lake City, USA  
1996 American Geophysical Union Fall Meeting, San Francisco, USA  
1995 American Geophysical Union Fall Meeting, San Francisco, USA

## **PUBLICATIONS**

### **Journal Articles**

1. Dewangga, D.D., Tsai, C.H., Lee, H.Y., Iizuka, Y., Chung, S.L., Chang, W.Y. (2025) Element redistribution along the subduction interface: metasomatism between pelitic schist and ophiolitic serpentinite in the Yuli belt, eastern Taiwan from the Yuli belt. *Lithos*, 516-517, 108280. doi:10.1016/j.lithos.2025.108280
2. Lo, W.H., Tsai, C.H., Baziotis, I., Chung, S.L., Liu, C., Iizuka, Y., Lee, H.Y. (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, 34. Doi:10.1007/s00410-025-02228-2
3. Dewangga, D.D., Tsai, C.H., Iizuka, Y., Sakaguchi, I.T., Kouketsu, Y., Chung, S.L., Lee, C.Y., Chang, W.Y., Chen, H.F. (2025) Origin and metamorphism of ophiolitic serpentinites from the Yuli belt, eastern Taiwan: new findings and tectonic implications. *International Geology Review*, 67, 933–949. doi:10.1080/00206814.2024.2415088
4. Byrne, T., Chojnacki, M., Lewis, J., Lee, J.C., Ho, G.R., Yeh, E.C., Lee, H.Y., Tsai, C.H., Evans, M., Webb, L. (2024) Tectonic exhumation of a metamorphic core in an arc-continent collision during oblique convergence, Taiwan. *Progress in Earth and Planetary Science*, 11, 23. doi:10.1186/s40645-024-00627-w
5. Lo, W.H., Tsai, C.H., Chung, S.L., Li, X.H., Li, Q.L., Lee, H.Y., Lee, C.Y., Iizuka, Y. (2022) Petrographic, geochemical, and geochronological characteristics of metaplagiogranites from a high-pressure mélangé in the Yuli belt, eastern Taiwan: Evidence for an early Miocene igneous precursor. *Lithos*, 428-429C, 106829. doi:10.1016/j.lithos.2022.106829
6. Zhang, Y., Tsai, C.H., Froitzheim, N., Ustaszewski, K. (2020) The Yuli Belt in Taiwan: Part of the suture zone separating Eurasian and Philippine Sea plates. *Terrestrial, Atmospheric and Oceanic Sciences*, 31, 415–435. doi:10.3319/TAO.2020.06.28.01
7. Rehman, H.U., Tsujimori, T., Tsai, C.H., Chung, S.L. (2020) Editorial of the special issue “Subduction and continental collision processes: Petrologic, geochemical and structural perspectives”, *Lithos*, 360, 1–6. doi:

- 10.1016/j.lithos.2020.105430
8. Kouketsu, Y., Tsai, C.H., Enami, M. (2019) Discovery of unusual metamorphic temperatures in the Yuli belt, eastern Taiwan: New interpretation of data by Raman carbonaceous material geothermometry. *Geology*, 47, 522–526. doi:10.1130/G45934.1
  9. Baziotis, I., Tsai, C.H., Ernst, W.G., Jahn, B.M., and Iizuka, Y. (2017) New P-T constraints on the Tamayen glaucophane-bearing rocks, eastern Taiwan: PERPLE\_X modeling results and geodynamic implications. *Journal of Metamorphic Geology*, 35, 35–54.
  10. Wang, Y., Tsai, C.H., Zhou, L., Qiu, Y., Sun, G. (2017) Reassessment of the Mesozoic meta-sedimentary rocks and tectonic setting of Taiwan and the adjacent continental margin of eastern Asia. *Geological Magazine*, 154, 1127–1154.
  11. Keyser, W., Tsai, C.H., Iizuka, Y., Oberhaensli, R., Ernst, W.G. (2016) High-pressure metamorphism in the Chinshuichi area, Yuli belt, eastern Taiwan. *Tectonophysics*, 692, 191–202, doi:10.1016/j.tecto.2015.09.012.
  12. Tsai, C.H., Iizuka, Y., Ernst, W.G. (2013) Diverse mineral compositions, textures, and metamorphic P-T conditions of the glaucophane-bearing rocks in the Tamayen mélangé, Yuli belt, eastern Taiwan. *Journal of Asian Earth Sciences*, 63, 218–233. doi:10.1016/j.jseaes.2012.09.019
  13. Yui, T.F., Ogasawara, Y., Zhang, L., Tsai, C.H. (2013) Editorial: HP and UHP metamorphic belts in Asia. *Journal of Asian Earth Sciences*, 63, 1–4. doi: 10.1016/j.jseaes.2013.01.001
  14. Rehman, H.U., Tsujimori, T., Tsai, C.-H. (2012) Minerals, rocks, and mountains: Linking petrology, geochemistry, and geochronology. *Journal of Asian Earth Sciences*, 59, 1–2. doi:10.1016/j.jseaes.2012.07.015
  15. Osozawa, S., Tsai, C.H., Wakabayashi, J. (2012) Folding of granite and Cretaceous exhumation associated with regional-scale flexural slip folding and ridge subduction, Kitakami zone, northeast Japan. *Journal of Asian Earth Sciences*, 59, 85–98. doi:10.1016/j.jseaes.2012.05.023
  16. Tsai, C.H., Yui, T.F., Chen, W.S., Chung, S.L., (2012) Comment on ‘Geochronologic Evidence for a Cold Arc-Continent Collision: The Taiwan Orogeny’ by R.P. Wintsch, H.-J. Yang, X.-H. Li, K.-A. Tung [*Lithos* 125 (2011) 236–248], *Lithos*, 132–133, 193–195. doi:10.1016/j.lithos.2011.09.002.
  17. Boullier, A.-M., Yeh, E.C., Boutareaud, S., Song, S.R., & Tsai, C.H., (2009) Micro-scale anatomy of the 1999 Chi-Chi earthquake fault zone. *Geochemistry, Geophysics, Geosystems*, 10, Q03016, doi:10.1029/2008GC002252. (SCI)
  18. Lin, L.H., Wang, P.L., Lo, C.H., Tsai, C.H. and Jahn, B.M. (2005)  $^{40}\text{Ar}$ - $^{39}\text{Ar}$  thermochronological constraints on the exhumation of ultrahigh-pressure

- metamorphic rocks in the Sulu terrane of eastern China, *International Geology Review*, 47, 872–886.
19. Tsai, C.H., Lo, C.H., Liou, J.G. & Jahn, B.M. (2000) Evidence against subduction-related magmatism for the Jiaoziyuan Gabbro, northern Dabie Shan, China, *Geology*, 28, 943–946.
  20. Tsai, C.H. & Liou, J.G. (2000) Eclogite facies relics and inferred ultrahigh-pressure metamorphism in the North Dabie Complex, central-eastern China, *American Mineralogist*, 85, 1–8.
  21. Tsai, C.H., Liou, J.G. & Ernst, W.G. (2000) Petrological characterization and tectonic significance of retrogressed garnet peridotites, Raobazhai area, North Dabie Complex, east-central China, *Journal of Metamorphic Geology*, 18, 181–192.
  22. Jahn, B.M., Wu, F., Lo, C.H. & Tsai, C.H. (1999) Crust-mantle interaction caused by deep subduction of the continental crust: evidence from post-collisional mafic-ultramafic intrusions of the Northern Dabie Complex, *Chemical Geology*, 157, 119–146.
  23. Liou, Y.S., Lo, C.H., Tsai, C.H., Wang, P.L. & Chen, C.H. (1999) Thermochronological study of the Dabie ultrahigh-pressure metamorphic terrane, east-central China, *Journal of the Geological Society of China*, 42, 159–188.
  24. Liou, Y.S., Lo, C.H., Tsai, C.H., Chung, S.L., Qiu, J. & Li, X. (1999)  $^{40}\text{Ar}/^{39}\text{Ar}$  geochronology of volcanics and intrusives in the Dabie Shan and Su-Lu terranes, eastern China, and their regional implications, *Journal of the Geological Society of China*, 42, 493–520.
  25. Zhang, R.Y., Liou, J.G. & Tsai, C.H. (1996) Petrogenesis of a high-temperature metamorphic terrane: a new tectonic interpretation for the north Dabie Shan, central China, *Journal of Metamorphic Geology*, 14, 319–333.

### **Conference Abstracts**

More than 40 abstracts.