Chin-Ho Tsai

Department of Natural Resources and Environmental Studies National Dong Hwa University

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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 (2001–2023)

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, Orogenic Geology, Optical Petrography, 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

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 8th 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

- 2022 Japan Geoscience Union Meeting (online)
- 2021 Academia Sinica (Institute of Earth Sciences)
- 2020 National Taiwan University (Department of Geosciences)
- 2020 Tohoku University (17th International Workshop on WATER DYNAMICS), Japan
- 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 student)

Dominikus Deka Dewangga (PhD student)

Wang, Nancy (MS student)

Liou, Kang-Wen (MS student)

Lee, Jen (MS student)

Yang, Milly (MS student)

FORMER GRADUATE STUDENTS

- 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, Vicky: New constraints and interpretations on peak pressure-temperature conditions of metasedimentary rocks in the Yuli belt, eastern Taiwan (MS, 2019)
- Lo, Hans: 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, Pika: 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, Samuel: Petrologic characterization of amphibolites and mafic enclaves in metagranitoids in the Nanao area, NE Taiwan (MS 2013)
- Huang, Echo: Metamorphic evolution and geologic implications of in-situ schists and mafic rocks in the Juisui area, Yuli belt, eastern Taiwan (MS 2013)
- Lan, Phil: Petrological and geochemical characterization of tectonic blocks in the Yuli belt, eastern Taiwan (MS 2011)
- Hong, Frank: Metamorphism and tectonic implications of garnet-bearing rocks in the

- Hoping area, eastern Taiwan (MS 2010)
- Kuo, Tess: Characterization of sub-micron precipitates in clinopyroxene in garnet-cpx rocks from the North Dabie Complex (MS 2009)
- Hsu, Linda: Petrographic and mineral chemistry of metamorphic rocks of the Douling complex, east Qinling (MS 2008)

INTERNATIONAL CONFERENCE PRESENTATIONS

- 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

 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 mélange in the Yuli belt, eastern Taiwan: Evidence for an early Miocene igneous precursor. Lithos, 428-429C, 106829.

- doi:10.1016/j.lithos.2022.106829
- 2. 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
- 3. 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
- 4. 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
- 5. 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.
- 6. 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.
- 7. 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.
- 8. 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 mélange, Yuli belt, eastern Taiwan. Journal of Asian Earth Sciences, 63, 218–233. doi:10.1016/j.jseaes.2012.09.019
- 9. 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
- 10. 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
- 11. 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
- 12. 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.
- 13. 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)
- 14. Lin, L.H., Wang, P.L., Lo, C.H., Tsai, C.H. and Jahn, B.M. (2005) 40Ar-39Ar thermochronological constraints on the exhumation of ultrahigh-pressure metamorphic rocks in the Sulu terrane of eastern China, International Geology Review, 47, 872–886.
- 15. Tsai, C.H., Lo, C.H., Liou, J.G.& Jahn, B.M. (2000) Evidence against subduction-related magmatism for the Jiaoziyan Gabbro, northern Dabie Shan, China, Geology, 28, 943–946.
- 16. 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.
- 17. 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.
- 18. 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.
- 19. 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.
- 20. Liou, Y.S., Lo, C.H., Tsai, C.H., Chung, S.L., Qiu, J. & Li, X. (1999) 40Ar/39Ar 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.
- 21. Zhang, R.Y., Liou, J.G. & Tsai, C.H. (1996) Petrogenesis of a high-temperature metamorphic terrane: a new tectonic interpretation for the north Dabieshan, central China, Journal of Metamorphic Geology, 14, 319–333.

Conference Abstracts

More than 40 abstracts; a detailed list is in this page.