

Curriculum Vita - Prof Lung Sang Chan

Current Academic Position:

Research Associate Dept of Earth & Planetary Science, UC Berkeley 2/2024-
Visiting Professor Dept of Earth & Planetary Science, UC Berkeley 9/2022-
Honorary Professor Dept. of Earth Sciences, The University of Hong Kong 7/2017-

Contact Information:

Corresponding Address: Dept. of Earth & Planetary Science, McCone Hall, Rm 315,
University of California, Berkeley, CA 94720, U.S.A.

Previous Appointments

College Principal, HKUSPACE Community College & HKUSPACE-PLK Stanley Ho
Community College, The University of Hong Kong, 2014-2022 (total student
enrollment in 2022: ~10,500)

Professor, Department of Earth Sciences, The University of Hong Kong, 1994-2017
(Joined as Lecturer in 1994; promoted to Professor in 2006)

Associate Professor, Department of Geology, University of Wisconsin-Eau Claire,
Wisconsin, U.S.A., 1984-94 (Joined as Assistant Professor in 1984; promoted
to Associate Professor in 1988)

Teaching Associate, Dept of Geology and Geophysics, UC Berkeley, 1983-84

Other University Management Positions

Chair, Board of Science Faculty, The University of Hong Kong, 2009-2013

Program Director, MSc in Applied Geosciences, Faculty of Science, 1997-2014

Associate Dean, Faculty of Science, 2002-2007

Education

1984 Ph.D., Department of Geology & Geophysics, University of California, Berkeley,
U.S.A.

1980 M.A. Department of Geology & Geophysics, University of California, Berkeley,
U.S.A.

1978 B.S.Sc. (1st Hon.), Department of Geography, The Chinese University of Hong
Kong

Honors and Awards

- Best Original Research Paper, Hong Kong Academy of Medicine, 2014
- University Distinguished Teacher Award, The University of Hong Kong, 2009
- Science Faculty Service Award, The University of Hong Kong, 2008
- University Teaching Fellowship, University of Hong Kong, 2004

Research Interests

- Paleomagnetism and environmental magnetism
- Structural geology and tectonics of South China and Hong Kong region
- Applications of geophysical techniques to geological and environmental studies

Service Roles in Government & Professional Sectors

- Expert Advisor, Hong Kong Science Museum, HKSAR (2014-present)
- Science Advisor, Hong Kong Observatory, HKSAR (2008-present)
- Member, Advisory Committee on Water Resources and Quality of Water Supplies, HKSAR (2012-2016)
- Board Member, Hong Kong Academy for Gifted Education, HKSAR (2011-2017)
- Chair, Geological Society of Hong Kong, (2001-2005)

Summary on Grants and Industrial Research Funding, and Research Students

- Funding for research activities about HK\$5M in total
- Education-related funding about HK\$8M in total
- Over 40 consultancies and contract research for about HK\$9M in total
- Supervised or co-supervised 12 PhDs and 10 MPhils

Publications in past 10 years

SCI Journals

Chan, L.S. and Alvarez, W. 2023, Natural explosion structures in rocks, Jour. Structural Geology, 174, 104933.

Chan, L.S., Alvarez, W., Geiser, P. Tavarnelli, E., 2022, Fluid-assisted brecciation of the Lower Cretaceous Majolica limestone in the Umbria-Marches Apennines, , in Koeberl, C. et al (eds): From the Guajira Desert to the Apennines, and from Mediterranean Microplates to the Mexican Killer Asteroid: Honoring the Career of Walter Alvarez, Geol. Soc. Amer. Special Paper 557, 99-114

Alvarez, W., Belza, J., **Chan, L.S.**, and 5 others, 2019, Expansion breccias in Lower Cretaceous Apennine pelagic limestones: I. Geological observations, in Koeberl, C., and Bice, D.M., eds., 250 Million Years of Earth History in Central Italy: Celebrating 25 Years of the Geological Observatory of Coldigioco: Geological Society of America Special Paper 542, p. 229–250, [https://doi.org/10.1130/2019.2542\(12\)](https://doi.org/10.1130/2019.2542(12))

Tang, D.L.K., Wilson, C.J.N., Sewell, R.J., Seward, D., **Chan, L.S.**, Ireland, T.R., Wooden, J.L., 2017, Tracking the evolution of Late Mesozoic arc-related magmatic systems in Hong Kong using in-situ U-Pb dating and trace element analyses in zircon, American Mineralogist, 102, pages 2190–2219, DOI: <http://dx.doi.org/10.2138/am-2017-6071>

Nanni, U., Pubellier, M., **Chan, L.S.**, Sewell, R.J., 2017, Rifting and reactivation of a Cretaceous structural belt at the northern margin of the South China Sea, Jour. East Asian Earth Science, DOI: 10.1016/j.jseaes.2017.01.008

Zuo, X., **Chan, L.S.**, Gao, J.F., 2017, Compression-extension transition of continental crust in a subduction zone: A parametric numerical modeling study with implications on Mesozoic-Cenozoic tectonic evolution of the Cathaysia Block, Article in PLOS ONE 12(2)

- Zhou, Y., Leung, Y., **Chan, L.S.**, 2017, Oscillatory tendency of interevent direction in earthquake sequences, *Physica A: Statistical Mechanics and its Applications*, 478, July, 120–130
- Chan, L.S.**, 2017, Phreatic brecciation events in Hong Kong: implications for the occurrence of seismogenic hydraulic fracturing, *Proceeding of GSA Penrose Conference*, Coldigioco, Airo, Italy, Sept 25-29, 2017
- Chan, L.S.**, Zhou, Yu, Leung, Y., Ying, W., 2016, Oscillatory tendency in aftershocks migration pattern, September, 2016, Conference: GSA Annual Meeting in Denver, Colorado, USA, DOI: 10.1130/abs/2016AM-281539
- Kwong, H.T., Jiao, J.J., **Chan, L.S.**, 2016, A preliminary study on the offshore stratigraphy in Hong Kong and its hydrogeological implications, *Environmental Earth Sciences* 75(11)
- Kumana, C.R., Cheung, B.M.Y., **Chan, L.S.**, 2014, Airport screening for Ebola: current thermal scanning procedures are unreliable, *Letter Brit. Med. Jour.* 349, Nov 04, g6571
- Li, M.H.Y., Zhou, M.F., K.W. Lai, **Chan, L.S.** and Chen, T., 2014, Geochemical and geochronological constraints on Late Jurassic volcanic rocks at Tuen Mun, Hong Kong, with implications for the Palaeo-Pacific subduction, *International Geology Review* 56(4):408-429
- Sun, S., **Chan, L.S.**, Li, Y., 2014, What lurks in the Martian rocks and soil? Investigations of sulfates, phosphates, and perchlorates. Flower-like apatite recording microbial processes through deep geological time and its implication to the search for mineral records of life on Mars, *American Mineralogist* 99(10):2116-2125, DOI: 10.2138/am-2014- 4794
- Chan, L.S.**, Lo, J., Kumana, C.R. & Cheung, B.M.Y., 2013. Utility of infrared thermography for screening febrile subjects. *Hong Kong Medical Journal*, 19(2), pp. 109-115.
- Li, Y.L., Cole, D.R., Kon Hauser, K. & **Chan, L.S.**, 2013. Quartz nanocrystals in the 2.48 Ga Dales Gorge banded iron formation of Hamersley, Western Australia: Evidence for a change from submarine to subaerial volcanism at the end of the Archean, *American Mineralogist*, 98, pp. 582-587.
- Li, Y.L., Sun, S. & **Chan, L.S.**, 2013. Phosphogenesis in the 2460 and 2728 million-year-old banded iron formations as evidence for biological cycling of phosphate in the early biosphere. *Ecology and Evolution*, 3(1), pp. 115-125.

Books

- Tang, D. & **Chan, L.S.**, 2023, Review of Tectonic History, Structures and Metamorphism of Hong Kong, Technical Report, GSHK, CEDD.
- Chan, L.S.** (ed.), 2023, Hong Kong's Natural Environment 香港志:自然環境, Hong Kong Chronicle vol 3, Chung Hwa Books Publ., Hong Kong, 713pp. (Chinese)
- Chan, L.S.** (ed.), 2023, Hong Kong's Natural EResources and Ecology 香港志:自然資源與生態, Hong Kong Chronicle vol 4 快, Chung Hwa Books Publ., Hong Kong, 798pp. (Chinese)
- Chan, L.S.**, 2015, Geological Heritage of Hong Kong, Aristo Press, Hong Kong, 200 pp.

Chan, L.S. & Ho, L.M.W. Problem-based learning in the field setting. 2014, In V. Tong (Ed.), *Research and Education in Geosciences*. DOI: 10.1007/978-94-007-6943-4_5

Ho, L.M.W. & **Chan L.S.**, 2015, Problem-Based Learning as the Instructional Approach to Field Learning in the Secondary School Setting, in Walker et al. (eds) *Essential Readings in Problem-Based Learning*, p. 179-206, Purdue Univ Press, U.S.A.

Conference Abstracts and Papers in Proceedings

Dovoe, M., Wenk, H-R., & **Chan, L.S.**, Crystallographic orientation-dependent strain response in hydrothermal quartzites revealed by synchrotron X-ray Laue microdiffraction, Conference Abstract, AGU Fall Meeting, MR23B-0085, 12 Dec 2023.

Chan, L.S., Tang, D. L.K., 2022, Origin of inorganic chert in lacustrine environment – insights from the K-PG Ping Chau formation of Hong Kong, Geological Society of America Abstracts with Programs. T144, Paper No. 15-1Vol 54, No. 5, doi: 10.1130/abs/2022AM-378217

Chan, L.S., 2022, Explosion fractures in hydrothermal bodies in Hong Kong: observations and implications, in Proceedings, Geological Society of Hong Kong 40th Anniversary Conference, August, 2022, p. 12-15

Song, J.S., and **Chan, L.S.**, 2022, Field study of the hydrothermal dyke in Kat O, in Proceedings, Geological Society of Hong Kong 40th Anniversary Conference, August, 2022, p. 41-47

Mok, D.W.K., Cheung, S.S.M. and **Chan, L.S.**, 2022, Raman spectroscopy of silica-rich, fine-grained rocks from Hong Kong, in Proceedings, Geological Society of Hong Kong 40th Anniversary Conference, August, 2022, p. 48-53.

Hung, C.W., **Chan, L.S.**, and Tang, D.L.K., 2022, Rhyolites in Po Toi: implications for crystal mush model, in Proceedings, Geological Society of Hong Kong 40th Anniversary Conference, August, 2022., p. 30-34.

Chan, L.S., 2019, A model for the formation of hot springs in coastal area of Guangdong, Conference Proceed., The 9th World Chinese Conference of Geological Science, June 1-2, 2019, Jilin, China

Chan, L.S., 2017, Phreatic brecciation events in Hong Kong: implications for the occurrence of seismogenic hydraulic fracturing, Proceeding of GSA Penrose Conference, Coldigioco, Airolo, Italy, Sept 25-29, 2017

Chan, L.S., Zhou, Yu, Leung, Y., Ying, W., 2016, Oscillatory tendency in aftershocks migration pattern, September 2016, Conference: GSA Annual Meeting in Denver, Colorado, USA, DOI: 10.1130/abs/2016AM-2815