



Shing-Lin Wang

Assistant Professor

PhD, National Taiwan University

Email: jslwang@mail.nsysu.edu.tw

Phone: +886-7-5252000 ext. 5139

Expertise and Research Interests:

Radiocarbon (^{14}C) dating and tracer studies:

1. Developing techniques for radiocarbon analyses of solid, liquid and gas samples
2. Establishing reservoir ages around Taiwan for radiocarbon age correction of marine samples
3. Radiocarbon tracer studies in water and air samples for ocean current circulation, global carbon cycle, and anthropogenic activities in the atmosphere
4. Radiocarbon tree ring studies for paleoclimate reconstruction
5. Developing process for verifying renewable content in fuel blends, tracking co-processing efficiency and certifying biobased products

Isotopes Geochemistry:

1. oxygen, carbon, and uranium-series isotopes in corals for paleoclimatic and paleoceanographic and environmental studies
2. cosmogenic isotopes (^{14}C , ^{10}Be , ^{129}I) in rocks for surface erosion and in seawater for ocean circulation tracer studies

Publications:

1. **SL Wang***, YY Lee, CC Shen, IC Yen, SW Wang, YC Yang, GS Burr and JBH Shyu. 2025. Marine reservoir age correction for the Taiwan Strait and the South China Sea since early Mid-Holocene. *Radiocarbon*, 67, DOI: 10.1017/RDC.2025.10146. (JIF=1.3, 64/101(Q3) in *Geochemistry & Geophysics*)

(representative paper)

2. **SL Wang***, YS Lin, GS Burr, PL Wang and LH Lin. 2022. Radiocarbon and stable carbon isotope constraints on the propagation of vent CO₂ to fluid in the acidic Kueishantao shallow water hydrothermal system. *Geochemistry, Geophysics, Geosystems*, 23, e2022GC010508. DOI: 10.1029/2022GC010508. (JIF=3.0, 27/101(Q2) in *Geochemistry & Geophysics*)
3. **SL Wang**, D Fan, WJ Huang, Y Wu and J Su. 2021. Hypoxic effects on the radiocarbon in DIC of the ECS subsurface water. *Journal of Geophysical Research: Ocean*, 126, e2020JC016979. DOI: 10.1029/2020JC016979. (JIF=3.4, 9/65(Q1) in *Oceanography*)
4. GS Burr, H Matsuzaki, BS Wang, H Kusuno, H Tokuyama, T Yamagata, TL Yu, **SL Wang**, CC Chang, AJT Jull and CH Lo. 2020. Anthropogenic ¹²⁹I in the South China Sea and coastal waters around Taiwan. *Elementa Science of the Anthropocene*, 8, 1. DOI: 10.1525/elementa.2020.064. (JIF=4.5, 25/111(Q1) in *Meteorology & Atmospheric Sciences*)
5. TM Blattmann, **SL Wang**, M Lupker, L Märki, N Haghipour, L Wacker, LH Chung, SM Bernasconi, M Plötze and TI Eglinton. 2019. Sulphuric acid-mediated weathering on Taiwan buffers geological atmospheric carbon sinks. *Scientific Reports*, 9, 2945. DOI: 10.1038/s41598019-39272-5. (JIF=3.9, 25/136(Q1) in *Multidisciplinary Sciences*)
6. RJ Yang, **SL Wang***, GS Burr, JT Liu and D Fan. 2019. Holocene variation of radiocarbon reservoir age offshore western Taiwan, derived from paired charcoals and mollusks. *Quaternary International*, 527, 79-86. DOI: 10.1016/j.quaint.2018.07.001. (JIF=1.8, 162/258(Q3) in *Geosciences, Multidisciplinary*)
7. **SL Wang***, GS Burr, PL Wang, LH Lin and V Nguyen. 2016. Tracing the sources of carbon in clay minerals: an example from western Taiwan. *Quaternary Geochronology*, 34, 24-32. DOI: 10.1016/j.quageo.2016.03.004. (JIF=2.5, 108/258(Q2) in *Geosciences, Multidisciplinary*)
8. **SL Wang***, GS Burr, YG Chen, Y Lin and TS Wu. 2013. Low-temperature and temperature stepped-combustion of terrace sediments from Nanfu, Taiwan. *Radiocarbon*, 55, 2, 553-562. DOI: 10.1017/S0033822200057684. (JIF=1.3, 64/101(Q3) in *Geochemistry & Geophysics*)
9. LF Robinson, JF Adkins, DP Fernandez, DS Burnett, **SL Wang**, AC Gagnon and N Krakauer. 2006. Primary U distribution in scleractinian corals and its implications for U series dating. *Geochemistry Geophysics Geosystems*, 7, 5, Q05022, DOI: 10.1029/2005GC001138. (JIF=3.0, 27/101(Q2) in *Geochemistry & Geophysics*)
10. LF Robinson, JF Adkins, LD Keigwin, J Southon, DP Fernandez, **SL Wang**, DS Scheirer. 2005. Radiocarbon variability in the Western North Atlantic during the Last Deglaciation. *Science*, 310, 5753, 1469-1473. DOI: 10.1126/science.1114832. (JIF=45.8, 3/136(Q1) in *Multidisciplinary Sciences*)
11. JF Adkins, GM Henderson, **SL Wang**, S O'Shea and F Mokadem. 2004. Growth rates of the deep-sea scleractinia *Desmophyllum cristagalli* and *Enallopsammia rostrata*. *Earth and Planetary Science*

Letters, 227, 3-4, 481-490. DOI: 10.1016/j.epsl.2004.08.022. (JIF=5.1, 6/101(Q1) in *Geochemistry & Geophysics*)

12. SL Chung, **SL Wang**, R Shinjo, CS Lee and CH Chen. 2000. Initiation of arc magmatism in an embryonic continental rifting zone of the southernmost part of Okinawa Trough. *Terra Nova*, 12, 5, 225-230. DOI: 10.1046/j.1365-3121.2000.00298.x. (JIF=1.7, 165/258(Q3) in Geosciences, Multidisciplinary)