

Curriculum Vitae

Dr. Ying Lin
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*Status of permanent residency

CAREER STATEMENT

In "Science, Evolution, and Creationism"(© National Academy of Sciences), science is defined as "the use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process". The great scientist Robert N. Clayton, National Medal of Science receiver in 2004, advised in doing science one should test a theory by laboratory measurements and also be creative. My career in science is greatly benefited by his mentoring. Robert N. Clayton, nicknamed "Mr Oxygen", believes in me and he describes me as "the world authority on water isotopes".

EDUCATION

Ph. D. Department of Geophysical Sciences at the University of Chicago, Illinois, USA (2000–2007)

M. Sc. Department of Geophysical Sciences at the University of Chicago, Illinois, USA (2000–2002)

M. Sc. Department of Earth and Engineering Sciences at Nanjing University, Jiangsu China (1998–2000)

B. Sc. Department of Earth and Engineering Sciences at Nanjing University, Jiangsu China (1994–1998)

EXPERTISE

Light Stable Isotope Geochemistry, esp. in triple oxygen isotope system. I am skilled in using Thermo Finnigan Delta V plus and MAT 253 isotope ratio mass spectrometers with both dual-inlet and conflo systems. I have skills in vacuum system, in fluorination of water and silver sulfide, in sulphur wet chemistry, in EA (elemental analyzer), TC/EA (thermal conversion/elemental analyzer), Gas Bench, and GC Isolink. I have knowledge in clumped isotopes and site-specific isotopes and their applications.

PROFESSIONAL RECORD

- Academic Coordinator, EDGE Institute, University of California, Riverside (from November 2017)
- Research Scientist, Institute of Deep-Sea Science and Engineering, Chinese Academy of Science (May 2014 to present)
- Postdoc Associate/Visiting Scholar, Department of Geosciences, Texas Tech University (May 2014 to September 2017)
- Short-term visiting scholar in Department of Geology at University of Maryland, College Park (January 2013 to May 2013)
- Assistant Professor in School of Earth and Space Sciences at University of Science and Technology of China (March 2012 to March 2014)
- Postdoctoral Appointment with Prof. Shaoyong Jiang in the Department of Earth and Engineering Sciences at Nanjing University, China (October 2009 to February 2012)
- Postdoctoral Appointment with Prof. Shuhei Ono in the Department of Earth, Atmospheric, and Planetary Sciences at Massachusetts Institute of Technology (February 2008 to January 2009)

- Temporary Professional Appointment with Prof. Robert N. Clayton in the Enrico Fermi Institute at the University of Chicago (September 2007 to December 2007)
- Research Assistant with Prof. Robert N. Clayton in the Department of Geophysical Sciences at the University of Chicago (2001–2002, June 2003 to March 2007, June 2007 to August 2007)
- Teaching Assistant with Prof. David Archer in the Department of Geophysical Sciences at the University of Chicago (March 2007 to June 2007)
- Research Assistant with Prof. Udo Fehn in the Department of Earth and Environmental Science at the University of Rochester (2002–2003)
- Teaching Assistant with Prof. Frank M. Richter in the Department of Geophysical Sciences at the University of Chicago (2000–2001)

PUBLICATIONS

- Lin Y.**, Horita, J, and Abe, O. (2017) Adsorption isotope effects of water on mesoporous silica and alumina with implications for the land-vegetation-atmosphere system, *Geochim et Cosmochim Acta*, *under review*.
- Ta K., Peng X., Chen S., Xu H., Li J., Du M., Hao J. and **Lin Y.** (2017) Hydrothermal nontronite formation associated with microbes from low-temperature diffuse hydrothermal vents at the South Mid-Atlantic Ridge, *Journal of Geophysical Research: Biogeosciences*, article 14549983.
- Lin Y.** and Horita, J (2016) Experimental Study on Isotope Fractionation of Soil water in Arid Environments. *Geochim et Cosmochim Acta*, 184, 257-271, doi:10.1016/j.gca.2016.04.029.
- Guy B. M., Ono S., Gutzmer J., **Lin Y.**, and Beukes N. J. (2014) Sulfur sources of sedimentary “buckshot” pyrite in the auriferous conglomerates of the Mesoarchean Witwatersrand and Ventersdorp Supergroups, Kaapvaal Craton, South Africa. *Mineralium Deposita*, 49, 751-775, doi:10.1007/s00126-014-0518-3.
- Lin Y.**, Clayton R. N., Huang L., Nakamura N., and Lyons J. R. (2013) Reply to Miller: Concerning the oxygen isotope anomaly observed in water vapor from Alert, Canada, and its stratospheric source. *Proc. Natl. Acad. Sci. USA*, **110** (48) E4568, doi:10.1073/pnas.1319439110
- Lin Y.**, Clayton R. N., Huang L., Nakamura N., and Lyons J. R. (2013) Oxygen isotope anomaly observed in water vapour from Alert, Canada and the implication for the stratosphere. *Proc. Natl. Acad. Sci. USA*, **110**(39), 15608-15613, doi: 10.1073/pnas.1313014110
- Guy B. M., Ono S., Gutzmer J., Kaufman A. J., **Lin Y.**, Fogel M., and Beukes N. J. (2012) A multiple-sulphur and organic carbon isotope record from non-conglomeratic sedimentary rocks of the mesoarchean Witwatersrand Supergroup, South Africa. *Precam. Res.*, **216–219**, 208–231, doi:10.1016/j.precamres.2012.06.018.
- Lin Y.**, Sim M.-S., and Ono S. (2011) Multiple-sulphur isotope effects during photolysis of carbonyl sulphide. *Atmos. Chem. Phys.*, **11**, 10283–10292, doi:10.5194/acp-11-10283-2011.
- Lin Y.**, Clayton R. N., and Gröning M. (2010) Calibration of $\delta^{17}\text{O}$ and $\delta^{18}\text{O}$ of international measurement standards – VSMOW, VSMOW2, SLAP, and SLAP2. *Rapid Commun. Mass Spectrom.* **24**, 773–776, doi:10.1002/rcm.4449.
- Lin Y.** and Clayton R. N. (2010) Non-mass-dependent oxygen isotope effect observed in water vapour from Alert, Canada, Ph.D. Thesis, the University of Chicago, 2007.

CONFERENCE PROCEEDINGS

- Lin Y.**, Horita J. and Abe O. (2017) Equilibrium isotope fractionation between water adsorbed on mesoporous materials and water vapor with implications for the hydrologic cycle. Goldschmidt 2017, Paris, France. Abstract accepted.
- Lin Y.** and Horita J. (2015) Experimental Study on Isotope Fractionation of Soil water in Arid Environments. American Geophysical Union (AGU) 2015 Fall Meeting, 9–13 December, San Francisco, California, USA. Abstract.

- Lin Y.**, Wu N. P., Shen Y. A., Farquhar J., Zhang X. L., Zhang G. J., Li D., and Ling H. F., $\delta^{34}\text{S}$ and $\Delta^{33}\text{S}$ records of sedimentary pyrites across the Ediacaran-Cambrian transition from Xiaotan section, Yunnan, South China. Goldschmidt Abstract, 2014, Sacramento, California, US.
- Lin Y.**, Clayton R. N., Huang L., Nakamura N., and Lyons J. R. (2012) Oxygen isotope anomaly observed in water vapour from Alert, Canada and the implication for the stratosphere. *Geophys. Res. Abs.*, **14**, EGU General Assembly 2012, Vienna, Austria.
- Whitehill A. R., **Lin Y.**, Cordner E., and Ono S. (2010) Mass-independent fractionation of sulphur isotopes during experimental photolysis of sulphur dioxide and carbonyl sulphide. Goldschmidt Conference, 13–18 June, Knoxville, Tennessee, USA. Abstract.
- Ono S., **Lin Y.**, Kopf S., and Cordner E. (2009) Mass-dependent and mass-independent sulphur isotope effects during laboratory photolysis experiments of carbonyl sulphide and sulphur dioxide. American Geophysical Union (AGU) 2009 Fall Meeting, 14–18 December, San Francisco, California, USA. Abstract.
- Lin Y.**, Huang L., and Clayton R. N. (2007) Non-mass-dependent oxygen isotope effect observed in water vapour from Alert, Canada (IAEA-CN-151/153). *Advances in Isotope Hydrology and its Role in Sustainable Water Resources Management (HIS-2007)* **1**, 289–296. http://www-naweb.iaea.org/naweb/ih/document/IHS_Symposium/IAEA-CN-151-153-Lin.pdf

CONFERENCES AND WORKSHOPS

Participant: Lunar and Planetary Science Conference at Houston, Texas (March, 2001; March, 2003); Zhongshan Forum of Climate and Global Change at Nanjing University, China (October 20–21, 2009); Workshop on New Developments in Stable Isotope Geochemistry, Göttingen, Germany (November 29-30, 2012).

Oral presentation: Multiple sulfur isotopic compositions of sedimentary pyrites from Xiaotan section, South China and its implication for the paleoenvironment. Goldschmidt Conference at Sacramento, California, US (June, 2014).

Oral presentation: *Oxygen isotope anomaly observed in water vapour from Alert, Canada and the implication for stratosphere-troposphere transport.* European Geoscience Union (EGU) at Vienna, Austria (April, 2012).

Oral presentation: *Oxygen Triple Isotope Composition of Water Vapour from Alert, Canada.* International Workshop on the Isotope Effects in Evaporation (IWIEE) at Pisa, Italy (May, 2006).

Poster: *Equilibrium Isotope Fractionation between Water Adsorbed on Mesoporous Materials and Water Vapor with Implications for the Hydrologic Cycle.* Goldschmidt Conference 2017, 13–18 August, Paris, France.

Poster: *Experimental Study on Isotope Fractionation of Soil water in Arid Environments.* American Geophysical Union (AGU) 2015 Fall Meeting, 9–13 December, San Francisco, California, USA.

Poster presentation: *Non-mass-dependent oxygen isotope effect observed in water vapour from Alert, Canada.* International Symposium on Advances in Isotope Hydrology and its Role in Sustainable Water Resources Management organized by International Atomic and Energy Agency (IAEA) at Vienna, Austria (June, 2007).

PROFESSIONAL AFFILIATIONS

American Geophysical Union (AGU), Member, 2006-2009, 2015-present
 International Atomic and Energy Agency (IAEA), USA Delegate, 2007
 Geochemical Society, Member, 2008–2009, 2014-present
 European Geoscience Union (EGU), Member, 2011-2012

GRANT RECORDS

Youth Innovation Fund, University of Science and Technology of China, 2013

National Natural Science Fund of China, 2014-2017, \$150,000