

# Lichun Ma

## Lichun Ma, Ph.D

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Chinese Academy of Geological Sciences  
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### Research interests

- Evaporite deposits (with emphasis on potash deposits);
- Brine chemistry, thermodynamic simulation of brine evolution pathways;
- Sedimentology and paleoclimatology;

### Education

- Ph.D. 2007 (Soil Science) China Agricultural University, College of Resources and Environment, Beijing, China 2004-2007
- M.S. 2004 / B.S. 2001 (Soil Science) Xinjiang Agricultural University, College of Resources and Environment, Urumqi, China 1997-2004

### Professional Experience

- Visiting Scholar** 2016-2017  
Department of Earth & Atmospheric Sciences, University of Alberta  
The salt mineral assemblage characteristics and petrographic features of Middle Devonian Evaporite Formation, Canada.
- Professor (2020)/Associate professor (2010)** 2010-Present  
Institute of Mineral Resources, Chinese Academy of Geological Sciences  
Research conducted covered the areas of evaporite deposits, brine evolution, sedimentology, and paleoclimate studies in the Lop Nor basin, Xinjiang province, Jiangling Basin, Hubei province, and Nanyang basin, Henan Province, China.
- Postdoctoral research associate** 2009-2010  
State University of New York at Binghamton, Department of Geological Sciences  
Research conducted covered hydrochemistry, sedimentology, stratigraphic and paleoclimate studies of the Kitagata Lake, Uganda and Lop Nor playa, Western China. These studies included the simulation of brine evolution pathways, description and interpretation of cores, identification of evaporite deposits coupled with sedimentological structure and features.
- Postdoctoral research associate** 2008-2009  
China Agricultural University, College of Resources and Environment  
Research conducted covered geochemistry, mineralogy, sedimentology and paleoclimate studies in the Lop Nor playa, Western China.

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## Five Representative Publications

- **Lichun Ma**, Wang Kai, Yu Zhang, Qingfeng Tang, and Hui Yan. Dynamic variations in salinity and potassium grade of a potassium-rich brine deposit in Lop Nor basin, China. *Scientific Reports*, 2021. 11:3351. Doi:10.1038/s41598-021-82958-y
- **Lichun Ma**, Qingfeng Tang, Baoguo Li, Yufei Hu and Wenju Shang. Sediment characteristics and mineralogy of salt mounds linked to underground spring activity in the Lop Nor playa, Western china. *Chemie der Erde*, 2016.76: 383-390.
- **Lichun Ma**, Jianqiang Ma, Jiqui Han, chenglin Liu, Lei Niu and Qi Zhang. 2014. Characteristics and genesis of Southey potash deposits, Saskatchewan, Canada. *Mineral Deposits*, Vol. 33, No. 5, p. 964-976.
- **Lichun Ma**, Tim K. Lowenstein and James M. Russell. A Brine Evolution Model and Mineralogy of Chemical Sediments in a Volcanic Crater, Lake Kitagata, Uganda. *Aquatic Geochemistry*, 2011. 17(2) : 129-140.
- **Lichun Ma**, Tim K. Lowenstein, Baoguo Li, Pingan Jiang, Chenglin Liu, Junping Zhong, Jiandong Sheng, Honglie Qiu and Qi Hong. 2010. Hydrochemical characteristics and brine evolution paths of Lop Nor Basin, Xinjiang Province, Western China. *Applied Geochemistry*, Vol.25, No. 1, p. 1770-1782.

## Candidate's Statement

Salt lake research is not only my job, but also my hobby. I have been working in the field of geochemistry and geology of salt lake deposits for more than ten years. During the past 10 years, I have developed a growing and tremendous interest in salt lake research.

Salt Lake not only contains invaluable mineral resources, but also has unique and fascinating landscape - a joy to your body and soul.

In the future, I believe salt lake resource will continue to play an important role in many more fronts such as wellness, global climate change and the transformation of energy structure.

I am honored to be a member of ISSLR and have participated in the 14th and 15th International Conference of Salt Lake Research.

I look forward to working together with Board members across different fields to promote the development of the International Society of Salt Lake Research in the future! I am ready to serve the society and our ISSLR member.