

# Curriculum Vitae

## Lei Sun

PhD in Geology  
Department of Earth and Atmospheric Sciences, University of Houston  
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### Education

**Doctor of Philosophy**, Geology, University of Houston, 05/2018  
**Master of Science**, Geology, University of Houston, 08/2014  
**Certificate in Geographic Information Systems**, University of Houston, 2014  
**Bachelor of Science**, Geochemistry, University of Science and Technology of China, 07/2011

### Research Interest

Imaging spectroscopy, laser scanning, geographic information system, photogrammetry, inorganic geochemistry, unmanned aerial vehicles

### Research Experience

**PhD Dissertation**: “Integrated Ground-based Hyperspectral Imaging, Terrestrial Laser Scanning, and Geochemical Study of Geological Outcrops”. 08/2014 - 04/2018. Advisor: Dr. Shuhab Khan.  
**MS Thesis**: “Remote Sensing of Hydrocarbon-induced Rock Alterations at Cement Field, Oklahoma”, 08/2013 – 07/2014. Advisor: Dr. Shuhab Khan.  
**Undergraduate Thesis**: “Phengite Rb-Sr Dating and Mineral Inclusion Study of Eclogite from the Taohang Area in Sulu Orogen”, 07/2010 – 06/2011. Advisor: Dr. Fukun Chen.

### Appointments

**Post-Doctoral Fellow**, Department of Earth and Atmospheric Sciences, University of Houston, Houston, TX, 08/2018 to present  
**Teaching Assistant**, Department of Earth and Atmospheric Sciences, University of Houston, Houston, TX, 08/2012 to present  
**Research Assistant**, Department of Earth and Atmospheric Sciences, University of Houston, Houston, TX, Summer 2017, 2016, 2015, and 2014  
**Research Assistant**, Laboratory for Radiogenic Isotope Geochemistry, Chinese Academy of Science Key Laboratory of Crust – Mantle Materials and Environments, University of Science and Technology of China, Hefei, China, 07/2011~07/2012, in Isotope Geochemistry, Geochronology, and Raman spectroscopy

### Teaching Experience

Remote Sensing, fall 2017, 2016, 2015, and 2014  
Introduction to GIS, spring 2018, 2017, 2016, and 2015  
Mineralogy, fall 2013 and 2012  
Petrography, spring 2014 and 2013  
Geophysical Field Camp, summer 2016

### Publications

Published in peer-reviewed journals

3. **Sun, L.**, Khan, S. D., and Godet, A. (2018). Integrated ground-based hyperspectral imaging and geochemical study of the Eagle Ford Group in West Texas. *Sedimentary Geology*, 363: 34-47

August 2018

2. **Sun, L.**, Khan, S. D., Sarmiento, S., Lakshmikantha, M. R., and Zhou, H. (2017). Ground-based hyperspectral imaging and terrestrial laser scanning for fracture characterization in the Mississippian Boone Formation. *International Journal of Applied Earth Observations and Geoinformation*, 63: 222-233
1. **Sun, L.** and Khan, S. D. (2016). Ground-based hyperspectral remote sensing of hydrocarbon-induced rock alterations at Cement, Oklahoma. *Marine and Petroleum Geology*, 77:1243-1253

In review or in preparation

3. **Sun, L.** and Mann, P. Evaluation of a submarine slide offshore northwest Puerto Rico from high-resolution bathymetry as a possible trigger of the 1918 Puerto Rico Tsunami. In preparation.
2. Ahmad, S., **Sun, L.**, and Khan, S. D. X-Ray Diffraction and Remote Sensing of the Hydrocarbon Source Rocks in the Salt Range, Pakistan. In preparation.
1. **Sun, L.**, Khan, S. D., and Shabestari, P. Integrated hyperspectral and geochemical study of sediment-hosted disseminated gold at Goldstrike district, Utah. Submitted to *Mineralium Deposita*.

## Conference Presentations

8. **Sun, L.**, Khan, S. D., and Godet, A., “Integrated Ground-based Hyperspectral Imaging and Geochemical Study of the Eagle Ford Group in West Texas”. AGU Fall Meeting, New Orleans, LA, 2017
7. **Sun, L.**, Khan, S. D., Sarmiento, S., and Lakshmikantha, M. R., “Fracture Characterization on Virtual Outcrop Model of Mississippian Boone Formation”. AAPG Annual Convention & Exhibition, Houston, TX, 2017
6. Crockett, M., Khan, S. D., Alonso de Linaje, V., and **Sun, L.**, “A Comparative Hyperspectral Study of Hydrocarbon Seepages near Uvalde, Texas: An Analysis of Classification Method Accuracy”. GSA South-Central Section meeting, San Antonio, TX, 2017
5. Onyango, E., Khan, S. D., Talbot, R., and **Sun, L.**, “Application of Airborne and Ground-based Hyperspectral Imaging in Detecting Methane”. GSA South-Central Section meeting, San Antonio, TX, 2017
4. **Sun, L.**, and Khan, S. D., “Ground-based Hyperspectral Imaging of the Eagle Ford Formation.” GSA South-Central Section meeting, San Antonio, TX, 2017
3. **Sun, L.**, and Khan, S. D., “Ground-based Hyperspectral Remote Sensing and Terrestrial Laser Scanning of the Eagle Ford Formation”. AAPG Annual Convention & Exhibition, Calgary, AB, Canada, 2016
2. **Sun, L.**, and Khan, S. D., “Ground-based Hyperspectral Remote Sensing and Terrestrial Laser Scanning of the Eagle Ford Formation”. Gulf Coast Association of Geological Societies 65<sup>th</sup> Annual Convention, Houston, TX, 2015
1. **Sun, L.**, Khan, S. D., Hauser, D., Glennie, C. L., Snyder, C. and Okyay, U., “Ground-based Hyperspectral Remote Sensing for Mapping Rock Alterations and Lithologies: Case Studies from Semail Ophiolite, Oman and Rush Springs Sandstone, Oklahoma”. AGU Fall Meeting, San Francisco, CA, 2014

## Awards

University of Houston Scholarship for Outstanding Graduate Work in Geology, 2017  
 University of Houston Outstanding Academic Achievements Scholarship in Geology, 2015  
 University of Houston Hess Scholarship for Outstanding Achievement in Geology, 2013  
 University of Science and Technology of China Outstanding Student Scholarship, 2010  
 University of Science and Technology of China Outstanding Student Scholarship, 2009  
 University of Science and Technology of China Zhao Jiuzhang Scholarship, 2008  
 University of Science and Technology of China Outstanding Freshman Scholarship, 2007

## **Professional training**

3. Faculty Development Workshop: “Developing the Diverse Department We Want: How do we cultivate it at the undergraduate, graduate, and faculty levels?” University of Houston. Apr. 2018
2. National Science Foundation Grant Writing Workshop. University of Houston, Feb. 2018
1. Faculty Development Workshop: “QUBES: Quantitative Undergraduate Biology Education and Synthesis: Integration of Quantitative Modeling”. University of Houston. Feb. 2018

## **Professional Services**

- 2017 Reviewer, Earth Science Reviews  
2017 Reviewer, AAPG Bulletin  
2016 Reviewer, ISPRS Journal of Photogrammetry and Remote Sensing