

# Fang-Zhen Teng

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## Professional Employment

9/2018 – present Professor, Dept. of Earth & Space Sciences, Univ. of Washington  
1/2013 – 9/2018 Associate Professor, Dept. of Earth & Space Sciences, Univ. of Washington  
8/2012 – 12/2012 Associate Professor, Dept. of Geosciences, Univ. of Arkansas, Fayetteville  
1/2008 – 8/2012 Assistant Professor, Dept. of Geosciences, Univ. of Arkansas, Fayetteville  
6/2006 – 12/2007 Post-doc, Field Museum of Natural History and The Univ. of Chicago  
2/2006 – 5/2006 Post-doc, Dept. of Geology, Univ. of Maryland, College Park

## Education

2005 Ph.D., Geochemistry, University of Maryland, College Park  
Dissertation: *Lithium isotopic systematics of the continental crust*  
Advisors: Drs. William F. McDonough and Roberta L. Rudnick  
2001 B.S., Geochemistry, University of Science and Technology of China

## Research Interests

Study of composition and evolution of the Earth and early solar system by using stable isotope systematics measured by multi-collector inductively coupled plasma mass spectrometry (MC-ICPMS).

## Peer-reviewed Publications (\* graduate student; \*\* postdoc; \*\*\* undergraduate student)

Total citations = 6072 and H-index = 45 (Google Scholar, 6/3/2020)  
Total citations = 4725 and H-index = 41 (Web of Science, 6/3/2020)

## Books and Special Volumes

**Teng, F.-Z.**, Lee, C.-T., Aulbach, S., and Liu, X.-M. eds. (2020) The continents: Origin, evolution and interactions with other reservoirs, *Geochimica et Cosmochimica Acta*, Vol. 278, 404 p.  
**Teng, F.-Z.**, Watkins, J., Dauphas, N. eds. (2017) Non-Traditional Stable Isotopes. *Reviews in Mineralogy & Geochemistry*. Vol. 82, 885 p.  
**Teng, F.-Z.** and Ma, L. eds. (2016) Deciphering isotope signatures of Earth Surface and Critical Zone processes, *Chemical Geology*, Vol. 445, 220 p.  
Sun, W., Tatsumi, Y., **Teng, F.-Z.**, Yang, X.-Y. and Ling, M.-X. eds. (2014) The Subduction Factory: Geochemical perspectives, *Geochimica et Cosmochimica Acta*, Vol. 143, 330 p.

## Peer-reviewed Papers in 2020

Chen, X.-Y.\*\*, **Teng, F.-Z.**, Huang, K.-J. and Algeo, T. J. (2020) Intensified chemical weathering during Early Jurassic revealed by magnesium isotopes, *Geochimica et Cosmochimica Acta*, in press. <https://doi.org/10.1016/j.gca.2020.02.035>.  
Chen, X.-Y.\*\*, **Teng, F.-Z.**, Sánchez, W. R., Romanek, C. S., Sanchez-Navas, A. and Sánchez-Román, M. (2020) Experimental constraints on magnesium isotopic fractionation during abiogenic calcite precipitation at room temperature, *Geochimica et Cosmochimica Acta*, 281, 102-117.

- Teng, F.-Z.**, Hu, Y.\* , Ma, J.-L., Wei, G.-J. and Rudnick, R. L. (2020) Potassium isotope fractionation during continental weathering and implications for global K isotopic balance. *Geochimica et Cosmochimica Acta*, 278, 261-271.
- Pang, K.-N., **Teng, F.-Z.**, Sun, Y.\*\* , Chung, S.-L. and Zarrinkoub, M. H. (2020) Magnesium isotopic systematics of the Makran arc, Iran: Implications for crust-mantle Mg isotopic balance, *Geochimica et Cosmochimica Acta*, 278, 110-121.
- Tian H.-C.\*\* , Zhang, C., **Teng, F.-Z.**, Long, Y.-J., Li, S.-G., He, Y.-S., Ke, S., Chen, X.-Y.\*\* and Yang, W. (2020) Diffusion-driven extreme Mg and Fe isotope fractionation in Panzhihua ilmenite: Implications for the origin of mafic intrusion, *Geochimica et Cosmochimica Acta*, 278, 361-375.
- Hu, Y.\* , **Teng, F.-Z.** and Ionov, D. A. (2020) Magnesium isotopic composition of metasomatized upper sub-arc mantle and its implications to Mg cycling in subduction zones, *Geochimica et Cosmochimica Acta*, 278, 219-234.
- Cuozzo, N.\* , Sletten, R., Hu, Y.\* , Liu, L.\*\* , **Teng, F.-Z.** and Hagedorn, B. (2020) Silicate weathering in Antarctic Ice-rich permafrost: Insights using magnesium isotopes, *Geochimica et Cosmochimica Acta*, 278, 244-260.
- Huang, T.-Y.\* , **Teng, F.-Z.**, Rudnick, R. L., Chen, X.-Y.\*\* , Hu, Y.\* , Liu, Y.-S. and Wu, F.-Y. (2020) Heterogeneous potassium isotopic composition of the upper continental crust, *Geochimica et Cosmochimica Acta*, 278, 122-136.
- Sun, Y.\*\* , **Teng, F.-Z.**, Hu, Y.\* , Chen, X.-Y.\*\* and Pang, K.-N. (2020) Tracing subducted oceanic slabs in the mantle by using potassium isotopes, *Geochimica et Cosmochimica Acta*, 278, 353-360.
- Lv, Y.\* , Liu, S.-A., **Teng, F.-Z.**, Wei, G.-J. and Ma, J.-L. (2020) Contrasting zinc isotopic fractionation in two mafic-rock weathering profiles induced by adsorption onto Fe (hydr)oxides, *Chemical Geology*, 539, 119504, <https://doi.org/10.1016/j.chemgeo.2020.119504>.
- Brewer, A.\* , Harrold, Z.\* , Chang, E., Gorman-Lewis, D. and **Teng, F.-Z.** (2020) Magnesium isotope fractionation during microbially enhanced forsterite dissolution, *Geobiology*, 18, 225-236. <https://doi.org/10.1111/gbi.12372>.
- Tian H.-C.\*\* , **Teng, F.-Z.**, Hou, Z.-Q., Tian, S.-H., Yang, W., Chen, X.-Y. and Song, Y.-C. (2020) Magnesium and lithium isotopic evidence for a remnant oceanic slab beneath central Tibet, *JGR-Solid Earth*, 125, e2019JB018197. <https://doi.org/10.1029/2019JB018197>.

### Awards and Honors

- Bassett Distinguished Teaching Award, Department of Earth and Space Sciences, UW (2017)
- Exceptional Mentoring of Undergraduates Award, College of the Environment, UW (2015)
- Best Associate Editor Award (2015), *Science Bulletin*
- A session “Frontiers in Non-Traditional Stable Isotopes: In Honor of Fang-Zhen Teng, Recipient of the 2014 MSA Award” at GSA Annual Meeting in Vancouver, BC (2014)
- Life Fellow, Mineralogical Society of America (2014)
- MSA Award, Mineralogical Society of America (2014)
- Robert C. and Sandra Connor Endowed Faculty Fellowship, U. of Arkansas, Fayetteville (2012)
- CAREER award, National Science Foundation (2011)

### Memberships in Professional Societies

- American Geophysical Union
- Geochemical Society
- Geological Society of America
- Mineralogical Society of America (Fellow)