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<b>Research Interests</b>	Planetary formation and differentiation Non-traditional isotope geochemistry Analytical development (MC-ICP-MS)	
<b>Employment</b>	Assistant Professor, Washington University in St. Louis Faculty Fellow, McDonnell Center for the Space Sciences Origins Prize Postdoctoral Fellow, Harvard University Research Assistant, Washington University in St. Louis Research Assistant, Chinese Academy of Sciences	2016 – 2016 – 2014 – 2016 2009 – 2013 2008 – 2009
<b>Education</b>	Ph. D., Washington University in St. Louis M.S., Washington University in St. Louis B.S., China University of Geosciences	2013 2011 2008
<b>Awards</b>	F.G. Houtermans Award Harvard Origins of Life Initiative Prize Fellowship NASA Earth and Space Science Fellowship LPI Career Development Award Carl Tolman Prize for Outstanding Graduate Teaching Graduating with Honors and Academic Outstanding National People's Scholarship Zhongkai Mining Company Fellowship	2020 2014 – 2016 2012 – 2013 2012 2011 2008 2007 2006
<b>Grants</b>	NASA, Emerging Worlds Program, principal investigator NASA, Apollo Next Generation Sample Analysis, co-I NASA, Emerging Worlds Program, co-investigator NASA, Solar System Workings Program, co-investigator	2020 2019 2018 2017
<b>Peer-Reviewed Publications</b>	<b>49 peer-reviewed journal publications; &gt;50 conference abstracts</b> <i>Asterisk (*) indicates first authors who are students/postdocs in my group</i>  49. Li, W., Liu, X.-M., <b>Wang, K.</b> , Hu, Y.-F., Suzuki, A., and Yoshimura, T. (2022) Potassium incorporation and isotope fractionation in cultured scleractinian corals. <i>Earth and Planetary Science Letters</i> , <b>581</b> , 117393. DOI: <a href="https://doi.org/10.1016/j.epsl.2022.117393">10.1016/j.epsl.2022.117393</a>	

48. Neuman, M.\* , Holzheid, A., Lodders, K., Fegley, B. Jr., Jolliff, B.L., Koefoed, P., Chen, H., and **Wang, K.** (2022) High temperature evaporation and isotopic fractionation of K and Cu. *Geochimica et Cosmochimica Acta*, **316**, 1-20. DOI:10.1016/j.gca.2021.09.035
47. Tian, Z.\* , Magna, T., Day, J.M.D., Mezger, K., Scherer, E.E., Lodders, K., Hin, R.C., Koefoed, P., Bloom, H., and **Wang, K.** (2021) Potassium isotope composition of Mars reveals a mechanism of planetary volatile retention. *Proceedings of the National Academy of Sciences*, **118**, e2101155118. DOI:10.1073/pnas.2101155118
46. Kuhnel, W.W., Jacobsen, S. B., Li, Y., Ku, Y., Petaev, M.I., Huang, S., Wu, Z., and **Wang, K.** (2021) High-temperature inter-mineral potassium isotope fractionation: Implication on K-Ca-Ar chronology. *ACS Earth and Space Chemistry*, **5**, 2740-2754. DOI:10.1021/acsearthspacechem.1c00147
45. **Wang, K.**, Li, W., Li, S., Tian, Z., Koefoed, P., and Zheng, X-Y. (2021) Geochemistry and cosmochemistry of potassium stable isotopes. *GEOCHEMISTRY*, **81**, 125786. DOI:10.1016/j.chemer.2021.125786
44. Magna, T., Jiang, Y., Skála, R., **Wang, K.**, Sossi, P.A., and Zák, K. (2021) Potassium elemental and isotope constraints on the formation of tektites and element loss during impacts. *Geochimica et Cosmochimica Acta*, **312**, 321-342. DOI:10.1016/j.gca.2021.07.022
43. Liu, H., Xue, Y-Y., Zhang, G., Sun, W-D., Tian, Z., Tuller-Ross, B., and **Wang, K.** (2021) Potassium isotopic composition of low-temperature altered oceanic crust and its impact on the global K cycle. *Geochimica et Cosmochimica Acta*, **311**, 59-73. DOI:10.1016/j.gca.2021.08.001
42. Ionov, D., and **Wang, K.** (2021) Potassium distribution and isotope composition in the lithospheric mantle in relation to global Earth's reservoirs. *Geochimica et Cosmochimica Acta*, **309**, 151-170. DOI:10.1016/j.gca.2021.06.033
41. Liu, H., Xue, Y-Y., Wang, K., Sun, W-D., and **Wang, K.** (2021) Contributions of slab-derived fluids to ultrapotassic rocks indicated by K isotopes. *Lithos*, **396-397**, 106202. DOI:10.1016/j.lithos.2021.106202
40. Li, W., Liu, X.-M., **Wang, K.**, Joel Fodrie, F., Yoshimura, T., and Hu, Y.-F. (2021) Potassium phases and isotopic composition in modern marine biogenic carbonates. *Geochimica et Cosmochimica Acta*, **304**, 364-380. DOI:10.1016/j.gca.2021.04.018
39. Li, W., Liu, X-M., **Wang, K.**, and Koefoed, P. (2021) Lithium and potassium isotope fractionation during silicate rock dissolution: an experimental approach. *Chemical Geology*, **568**, 120142. DOI:10.1016/j.chemgeo.2021.120142

38. Moynier, F., Hu, Y., **Wang, K.**, Zhao, Y., Deng, Z., Moureau, J., Li, W., Simon, J., and Teng, F-Z. (2021) Potassium isotopic composition of various samples using a collision-cell inductively coupled plasma mass spectrometer, Nu Instrument Sapphire. *Chemical Geology*, **571**, 120144. DOI:10.1016/j.chemgeo.2021.120144
37. **Wang, K.**, Peucker-Ehrenbrink, B., Chen, H., Lee, H., and Hasenmueller, E.A. (2021) Dissolved potassium isotopic composition of major world rivers. *Geochimica et Cosmochimica Acta*, **294**, 145-159. DOI:10.1016/j.gca.2020.11.012
36. Jiang, Y., Koefoed, P., Pravdivtseva, O.V., Chen, H., Li, C-H., Huang, F., Qin, L-P., Liu, J., and **Wang, K.** (2021) Early Solar System aqueous activity: K isotope evidence from Allende. *Meteoritics & Planetary Science*, **56**, 61-76. DOI:10.1111/maps.13588
35. **Wang, K.**, Close, H.\*G., Tuller-Ross, B., and Chen, H. (2020) Global average potassium isotope composition of modern seawater. *ACS Earth and Space Chemistry*, **4**, 1010-1017. DOI:10.1021/acsearthspacechem.0c00047
34. Wang, A., Yan, Y., Jolliff, B. L., McLennan, S. M., **Wang, K.**, Shi, E., and Farrell, W. M. (2020) Chlorine release from common chlorides by Martian dust activity. *Journal of Geophysical Research: Planets*, **125**, e2019JE006283. DOI:10.1029/2019JE006283
33. Koefoed, P. \*, Pravdivtseva, O.V., Chen, H., Gerritzen, C., Thiemens, M.M., and **Wang, K.** (2020) Potassium isotope systematics of the LL4 chondrite Hamlet: Implications for chondrule formation and alteration. *Meteoritics & Planetary Science*, **55**, 1833-1847. DOI:10.1111/maps.13545
32. Tian, Z.\*, Jolliff, B.L., Korotev, R.L., Fegley, B. Jr., Lodders, K., Day, J.M.D., Chen, H., and **Wang, K.** (2020) Potassium isotopic composition of the Moon. *Geochimica et Cosmochimica Acta*, **280**, 263-280. DOI:10.1016/j.gca.2020.04.021
31. Day, J.M.D., Moynier, F., Sossi, P.A., **Wang, K.**, Meshik, A.P., Pravdivtseva, O.V., Pettit, D.R. (2020) Moderately volatile element behavior at high temperature determined from nuclear detonation. *Geochemical Perspectives Letters*, **13**, 54-60. DOI:10.7185/geochemlet.2014
30. Liu, H., **Wang, K.**, Sun, W-D., Xiao, Y., Xue, Y-Y., and Tuller-Ross, B. (2020) Extremely light K in subducted low-T altered oceanic crust: Implications for K recycling in subduction zone. *Geochimica et Cosmochimica Acta*, **277**, 206-223. DOI:10.1016/j.gca.2020.03.025
29. Chen, H., Liu, X-M., and **Wang, K.** (2020) Potassium isotope fractionation during chemical weathering of basalts. *Earth and Planetary Science Letters*, **539**, 116192. DOI:10.1016/j.epsl.2020.116192
28. Bloom, H.\* , Lodders, K., Chen, H., Zhao, C., Tian, Z., Koefoed, P., Petř, M. K., Jiang, Y., and **Wang, K.** (2020) Potassium isotope compositions of carbonaceous

and ordinary chondrites: Implications on the origin of volatile depletion in the early solar system. *Geochimica et Cosmochimica Acta*, **277**, 111-131.

[DOI:10.1016/j.gca.2020.03.018](https://doi.org/10.1016/j.gca.2020.03.018)

27. Zhao, C. \*, Lodders, K., Bloom, H., Chen, H., Tian, Z., Koefoed, P., Petó, M. K. and **Wang, K.** (2020) Potassium isotopic compositions of enstatite meteorites.

*Meteoritics & Planetary Science*, **55**, 1404-1417. [DOI:10.1111/maps.13358](https://doi.org/10.1111/maps.13358)

26. Chen, J., Jolliff, B.L., Wang, A., Korotev, R.L., **Wang, K.**, Carpenter, P.K., Chen, H., Ling, Z., Fu, X., Ni, Y., Cao, H., and Huang, Y. (2019) Petrogenesis and shock metamorphism of basaltic lunar meteorites Northwest Africa 4734 and 10597.

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25. Jiang, Y., Chen, H., Fegley, B. Jr., Lodders, K., Hsu, W., Jacobsen, S.B., and **Wang, K.** (2019) Implications of K, Cu and Zn isotopes for the formation of tektites.

*Geochimica et Cosmochimica Acta*, **259**, 170-187.

[DOI:10.1016/j.gca.2019.06.003](https://doi.org/10.1016/j.gca.2019.06.003)

24. Tuller-Ross B. \*, Marty B., Chen H., Kelley K. A., Lee H. L., and **Wang K.** (2019)

Potassium isotopic systematics of oceanic basalts. *Geochimica et Cosmochimica Acta*, **259**, 144-154. [DOI:10.1016/j.gca.2019.06.001](https://doi.org/10.1016/j.gca.2019.06.001)

23. Tian, Z. \*, Chen, H., Fegley, B. Jr., Lodders, K., Barrat, J-A., Day, J.M.D., and

**Wang, K.** (2019) Potassium isotope compositions of Howardite-Eucrite-Diogenite meteorites. *Geochimica et Cosmochimica Acta*, **266**, 611-632.

[DOI:10.1016/j.gca.2019.08.012](https://doi.org/10.1016/j.gca.2019.08.012)

22. Tuller-Ross B. \*, Savage P.S., Chen H., and **Wang K.** (2019) Potassium isotope

fractionation during magmatic differentiation of basalt to rhyolite. *Chemical Geology*, **525**, 37-45. [DOI: 10.1016/j.chemgeo.2019.07.017](https://doi.org/10.1016/j.chemgeo.2019.07.017)

21. Chen, H., Meshik, A.P., Pravdivtseva, O.V., Day, J.M.D., **Wang, K.** (2019)

Potassium isotope fractionation during high-temperature evaporation determined from the Trinity nuclear test. *Chemical Geology*, **522**, 84-92.

[DOI:10.1016/j.chemgeo.2019.04.028](https://doi.org/10.1016/j.chemgeo.2019.04.028)

20. Lockmiller, K.A., **Wang, K.**, Fike, D.A., Shaughnessy, A.R., Hasenmueller,

E.A. (2019) Using multiple tracers ( $F^-$ , B,  $\delta^{11}B$ , and optical brighteners) to distinguish between municipal drinking water and wastewater inputs to urban streams. *Science of the Total Environment*, **671**, 1245-1256.

[DOI:10.1016/j.scitotenv.2019.03.352](https://doi.org/10.1016/j.scitotenv.2019.03.352)

19. Chen, H., Tian, Z., Tuller-Ross, B., Korotev, R. L., and **Wang, K.** (2019) High-

precision potassium isotopic analysis by MC-ICP-MS: An inter-laboratory comparison and refined K atomic weight. *Journal of Analytical Atomic Spectrometry*, **34**, 160-171. [DOI: 10.1039/C8JA00303C](https://doi.org/10.1039/C8JA00303C)

18. Li, Y., Wang, W., Huang, S., **Wang, K.**, and Wu, Z. (2018) First-principles investigation of the concentration effect on equilibrium fractionation of K isotopes in feldspars. *Geochimica et Cosmochimica Acta*, **245**, 374-385. DOI:10.1016/j.gca.2018.11.006
17. **Wang, K.**, and Korotev, R. (2018). Meteorites. In *Oxford Encyclopedia of Planetary Science*. Oxford University Press. DOI:10.1093/acrefore/9780190647926.013.16
16. Wu, Z., Wang, A., Farrell, W. M., Yan, Y., **Wang, K.**, Houghton, J., and Jackson, A. W. (2018) Forming perchlorates on Mars through plasma chemistry during dust events. *Earth and Planetary Science Letters*, 504, 94-105. DOI:10.1016/j.epsl.2018.08.040
15. Parendo, C. A., Jacobsen, S. B. and **Wang, K.** (2017) K isotopes as a tracer of seafloor hydrothermal alteration. *Proceedings of the National Academy of Sciences*, **114**, 1827-1831. DOI: 10.1073/pnas.1609228114
14. **Wang, K.**, and Jacobsen, S. B. (2016) Potassium isotopic evidence for a high energy Giant Impact origin of the Moon. *Nature*, **538**, 487-490. DOI:10.1038/nature19341
13. **Wang, K.**, and Jacobsen, S. B. (2016) An estimate of the Bulk Silicate Earth potassium isotopic composition based on MC-ICPMS measurements of basalts. *Geochimica et Cosmochimica Acta*, **178**, 223-232. DOI: 10.1016/j.gca.2015.12.039
12. **Wang, K.**, Jacobsen, S. B., Sedaghatpour, F., Chen, H., Korotev, R.L. (2015) The earliest Lunar Magma Ocean differentiation recorded in Fe isotopes. *Earth and Planetary Sciences Letters*, **430**, 202-208. DOI: 10.1016/j.epsl.2015.08.019
11. Barrat, J. A., Rouxel, O., **Wang, K.**, Moynier, F., Yamaguchi, A., Bischoff, A. and Langlade, J. (2015) Early stages of core segregation recorded by Fe isotopes in an asteroidal mantle. *Earth and Planetary Sciences Letters*, **419**, 93-100. DOI:10.1016/j.epsl.2015.03.026
10. **Wang, K.**, Savage, P.S., Moynier, F. (2014) The iron isotope composition of enstatite meteorites: Implications for their origin and the metal/sulfide Fe isotopic fractionation factor. *Geochimica et Cosmochimica Acta*, **142**, 149-165. DOI: 10.1016/j.gca.2014.07.019
9. **Wang, K.**, Day, J.M.D., Korotev, R.L., Zeigler, R.A., Moynier, F. (2014) Iron isotope fractionation during sulfide-rich felsic partial melting in early planetesimals. *Earth and Planetary Sciences Letters*, **392**, 124-132. DOI:10.1016/j.epsl.2014.02.022
8. Moynier, F., Fujii, T., **Wang, K.**, Foriel, J. (2013) Ab initio calculations of the Fe(II) and Fe(III) isotopic effects in citrates, nicotianamine, and phytosiderophore,

and new Fe isotopic measurements in higher plants. *Comptes Rendus Geosciences*, **345**, 230-240. DOI: [10.1016/j.crte.2013.05.003](https://doi.org/10.1016/j.crte.2013.05.003)

7. **Wang, K.**, Moynier, F., Barrat, J-A., Zanda, B., Paniello, R.C., Savage, P.S. (2013) Homogeneous distribution of Fe isotopes in the early solar nebula. *Meteoritics & Planetary Sciences*, **48**, 354-364. DOI: [10.1111/maps.12060](https://doi.org/10.1111/maps.12060)

6. **Wang, K.**, Moynier, F., Podosek, F., Foriel, J. (2012) An iron isotope perspective on the origin of the nanophase metallic iron in lunar regolith. *Earth and Planetary Sciences Letters*, **337-338**, 17-24. DOI: [10.1016/j.epsl.2012.05.021](https://doi.org/10.1016/j.epsl.2012.05.021)

5. Bishop, MC, Moynier F., Weinstein, C., Fraboulet, J.G., **Wang, K.**, Foriel, J. (2012) The Cu isotopic composition of iron meteorites, *Meteoritics & Planetary Sciences*, **47**, 268–276. DOI: [10.1111/j.1945-5100.2011.01326.x](https://doi.org/10.1111/j.1945-5100.2011.01326.x)

4. **Wang, K.**, Moynier, F., Dauphas, N., Barrat, J.A., Craddock, P., Sio, C. (2012) Iron isotope fractionation in planetary crusts. *Geochimica et Cosmochimica Acta*, **89**, 31-45. DOI: [10.1016/j.gca.2012.04.050](https://doi.org/10.1016/j.gca.2012.04.050)

3. Moynier, F., Blichert-Toft, J., **Wang, K.**, Herzog, G., Albarede, F. (2011) Elusive  $^{60}\text{Fe}$  in the early solar system. *The Astrophysical Journal*, **741**, 71. DOI: [10.1088/0004-637X/741/2/71](https://doi.org/10.1088/0004-637X/741/2/71)

2. Weinstein, C., Moynier, F., **Wang, K.**, Paniello, R., Foriel, J., Catalano, J., Pichat, S. (2011) Isotopic fractionation of Cu in plants. *Chemical Geology*, **286**, 266-271. DOI: [10.1016/j.chemgeo.2011.05.010](https://doi.org/10.1016/j.chemgeo.2011.05.010)

1. **Wang, K.**, Moynier, F., Podosek, F., Foriel, J. (2011)  $^{58}\text{Fe}$  and  $^{54}\text{Cr}$  in early solar system materials. *The Astrophysical Journal Letters*, **739**, L58. DOI: [10.1088/20418205/739/2/L58](https://doi.org/10.1088/20418205/739/2/L58)

## Invited Talks

Colloquium Lecture: Lamont-Doherty Earth Observatory, October 15, 2021.  
Colloquium Lecture: University of Washington, February 18, 2021.  
Summer School: Northwest University (China), August 16, 2020.  
F.G. Houtermans Award Talk: Goldschmidt 2020, Honolulu, USA, June 22, 2020.  
Public Talk: St. Louis County Library, October 8, 2019.  
Lectures: China University of Geosciences, Wuhan, China, September 17, 18, 2019.  
Invited Talk: Goldschmidt 2019, Barcelona, Spain, August 21, 2019.  
Annual Kieler-Woche Lecture: Universität Kiel, Germany, June 24, 2019.  
Summer School: University of Science and Technology of China, July 17, 2018.  
St. Louis Astronomical Society Monthly Meeting Lecture: March 16, 2018.  
Colloquium Lecture: University of Arizona, February 27, 2018.  
Colloquium Lecture: University of New Mexico, February 2, 2018.  
Colloquium Lecture: University of North Carolina, Chapel Hill, November 2, 2017.  
Summer School: Shandong University, Weihai, China, July 11 – 15, 2016.  
Invited Talk: Goldschmidt 2016, Yokohama, Japan, July 1, 2016.  
Seminar: University of Rochester, New York, February 14, 2014.

Seminar: The University of Texas at El Paso, February 18, 2013.  
Seminar: Carnegie institution of Washington; February 12, 2013.

## Conference Presentations

57. Zhang, X.J., Tian, Z., Day, J.M.D., Moynier, F., and **Wang, K.** (2022) Rubidium isotope composition of Mars. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1666](#).
56. Neuman, M., Gargano, A., Shearer, C.K., **Wang, K.**, Sharp, Z., and Ziegler, K. (2022) Volatile element evolution in the martian crust. Communications with the martian surface and atmosphere? 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1385](#).
55. Morris, R. V., Haney, N. C., Agresti, D. G., Neuman, M. D., **Wang, K.**, Jolliff, B. L., Shearer, C. K., Schmitt, H. H., and ANGSA Science Team (2022) Stratigraphy of the Apollo 17 landslide core 73002 from FMR maturity and VNIR and Mössbauer spectroscopy. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1849](#).
54. Tian, Z., Neuman, M., Koefoed, P., and **Wang, K.** (2022) Potassium isotope constraints on near-surface fractionation effects of bulk lunar soils and Apollo 15 deep drill core. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2798](#).
53. Valenciano, J.L., Neal, C. R., Neuman, M. D., **Wang, K.**, Jolliff, B. L., Shearer, C. K., and the ANGSA Science Team (2022) Major and trace element analysis of Apollo 17 drive tube 73002: first dissection. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2818](#).
52. Koefoed, P., Folco, L., Di Vincenzo, G., Nie, N.X., Glass, B. P., and **Wang, K.** (2022) The K isotope systematics of microtektites from the Australasian strewn field. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2272](#).
51. Smith, L. R., Haenecour, P., Barnes, J. J., Dominik, K., Neuman, M., **Wang, K.**, and Ogliore, R. (2022) Detailed coordinated analysis of the mineralogy, petrography and elemental composition of the carbonaceous chondrite falls Tarda and Kolang. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2832](#).
50. Smith, L. R., Haenecour, P., Barnes, J. J., Dominik, K., Neuman, M., **Wang, K.**, and Ogliore, R. (2022) Mineralogy, petrography and presolar components of the Chwichiya 002 ungrouped chondrite. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2873](#).
49. Koefoed, P., Barrat, J.A., Pravdivtseva, O., Alexander, C.M.O'D., Lodders, K., and **Wang, K.** (2022) Constraining the Solar System initial K isotope composition:

The K isotopes of CI chondrites. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2238](#).

48. Neuman, M., Macris, C. A., Koefoed, P., and **Wang, K.** (2022) Potassium isotope fractionation from levitation laser heating. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2087](#).

47. Shearer, C.K., McCubbin, F.M., Zeigler, R.A., Gross, J., Simon, S.B., Meshik, A., McDonald, F., Morris, R.V., Schmitt, H.H., Neuman, M., **Wang, K.**, Jolliff, B.L., Joy, K., Sharp, Z., Cato, M., Gargano, A., Eckley, S., Cano, E., Para, R., Simon, J., Welten, K.C., Barnes, J.J., Dyar, M., Burgess, K., Petro, N., Curran, N.M., Elsila, J.E., Gillis-Davis, J., Sehlke, A., Cohen, B., Pravdivseva, O., Thompson, M.S., Neal, C.R., Lucey, P., Sun, L., and the ANGSA science team (2022) Preparing for Artemis through lessons learned from Apollo 17. Highlighting the progress of the ANGSA initiative. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2546](#).

46. Neuman, M., Koefoed, P., **Wang, K.**, Jolliff, B. L., Morris, R.V., and the ANGSA Science Team (2022) Major and trace elemental variations and lithologic component analysis in Apollo 17 drive tube 73002. 53<sup>rd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1567](#).

45. Koefoed, P., Pravdivtseva, O., Ogliore, R., Jiang, Y., Lodders, K., and **Wang, K.** (2021) K isotope systematics of the CB chondrite Gujba: testing the impact plume model of formation. 52<sup>nd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2310](#).

44. Neuman, M.D., Jolliff, B.L., Koefoed, P., **Wang, K.**, and the ANGSA Science Team (2021) Apollo 17 drive tube 73002 major and trace element characterization. 52<sup>nd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1470](#).

43. Tian, Z., Magna, T., Day, J.M.D., Mezger, K., Scherer, E.E., Lodders, K., Hin, R.C., Koefoed, P., Bloom, H., and **Wang, K.** (2021) Potassium isotope composition of Mars reveals a mechanism of planetary volatile retention. 52<sup>nd</sup> Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2192](#).

42. **Wang, K.** (2020) Isotopic constraints on the origin and evolution of Martian volatiles. 30th Goldschmidt Conference (Honolulu, USA). Abstract#: [2735](#).

41. Chen, H., **Wang, K.**, Tian, Z., and Halliday, A.N. (2020) Copper isotopic composition in lunar samples. 30th Goldschmidt Conference (Honolulu, USA). Abstract#: [382](#).

40. Liu, H., Xue, Y-Y., Zhang, G., Sun, W-D., Tian, Z., Tuller-Ross, B., and **Wang, K.** (2020) Potassium isotopic composition of low-temperature altered oceanic crust and its impact on the global K cycle. 30th Goldschmidt Conference (Honolulu, USA). Abstract#: [1585](#).



39. Ionov, D., and **Wang, K.** (2020) Potassium isotope composition of mantle peridotite. 30th Goldschmidt Conference (Honolulu, USA). Abstract#: [1142](#).
38. Tian, Z., Magna, T., Day, J.M.D., Mezger, K., Scherer, E.E., Lodders, K., Koefoed, P., Bloom, H., and **Wang, K.** (2020) Potassium isotopic compositions of martian meteorites – implications for a “drier” early Mars through accretional volatile loss. 51st Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2572](#).
37. Jiang, Y., Koefoed, P., Li, C.-H., Hsu, W.B., and **Wang, K.** (2020) Potassium elemental and isotopic compositions of chondritic components in Allende carbonaceous chondrite. 51st Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2539](#).
36. Koefoed, P., and **Wang, K.** (2020) K isotope systematics of individual chondrules from the unequilibrated ordinary chondrites QUE 97008, GRO 95658, GRO 95539 and MET 00452. 51st Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [2522](#).
35. Jolliff, B. L., **Wang, K.**, Korotev, R.L., Simon, S.B., Papike, J.J., Shearer, C.K., and the ANGSA Science Team. (2020) Apollo 17 station 3 samples: What to expect among lithologic components in ANGSA double drive tube 73001 and 73002. 51st Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1970](#).
34. Ogliore, R.C., Cohen, M., **Wang, K.** Chen, H. and Liu, N. (2020) Searching for contemporary supernova dust in deep-sea sediments. 51st Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1695](#).
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15. Bloom, H., Chen, H., Fegley, B. Jr., Lodders, K., and **Wang, K.** (2018) Potassium isotope compositions of carbonaceous and ordinary chondrites: implications on the origin of volatile depletion in the early solar system. 49th Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1193](#).
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12. Jiang, Y., Chen, H., Fegley, B. Jr., Lodders, K., Hsu, W., Jacobsen, S.B., and Wang, K. (2018) New high-precision potassium isotopes of tektites. 49th Lunar and Planetary Science Conference (The Woodlands, TX), Abstract#: [1311](#).
11. **Wang, K.**, Tian., Z., Chen, H., Fegley, B., Lodders, K., and Barrat, J-A. (2017) Potassium isotopic fractionation during the volatile depletion in early solar system. 27th Goldschmidt Conference (Paris, France). Abstract#: [4149](#).
10. **Wang, K.**, and Jacobsen, S. B. (2016) New K isotopes support the Moon formed by a high energy giant impact. 2016 American Geophysical Union Fall Meeting (San Francisco, CA). Abstract#: [V41D-05](#).
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6. **Wang, K.**, Jacobsen, S. B., Sedaghatpour, F., Chen, H., Korotev, R.L. (2015) Lunar dunite reveals the same iron isotopic composition of the bulk silicate Earth and Moon, 46th Lunar and Planetary Science Conference (The Woodlands, TX). Abstract#: [1980](#).
5. **Wang, K.**, Moynier, F., Paniello, R.C. (2013) Iron Isotopic Fractionation during Metal/Silicate Segregation in Enstatite Chondrite and Aubrite Parent Bodies, 44th Lunar and Planetary Science Conference (The Woodlands, TX). Abstract#: [2254](#).
4. **Wang, K.**, Moynier, F., Dauphas N., Barrat, J-A., Day, J.M.D., Sio, C.K., Korotev, R.L., Zeigler, R.A. (2012) Iron Isotopic Fractionation in Early Planetary Crusts, 2012 American Geophysical Union Fall Meeting (San Francisco, CA). Abstract#: [P44A-06](#).
3. **Wang, K.**, Moynier, F., Dauphas, N., Barrat, J-A., Craddock, P., Sio, C. (2012) Iron Isotopic Compositions of Angrites and Stannern-trend Eucrites, 43rd Lunar and Planetary Science Conference (The Woodlands, TX). Abstract#: [1146](#).
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1. Huang, J., Xiao L., **Wang, K.** (2009) Xifeng Circular Basin: Another Failed Potential Crater in China. 40th Lunar and Planetary Science Conference (The Woodlands, TX). Abstract#: [1035](#).

## Service

<i>Journal Reviewer</i>	Geochimica et Cosmochimica Acta (25); Earth and Planetary Sciences Letters (7); Meteoritics & Planetary Sciences (2); Proceedings of the National Academy of Sciences (2); American Mineralogist (2); Chemical Geology (2); The Planetary Science Journal (1); The Astrophysical Journal (1); Geology (1); Nature Geoscience (1); Nature Communications (1); Science Advances (1); Geochemical Perspectives Letters (1); Science China Earth Sciences (1)
<i>Proposal/Grant Reviewer</i>	National Aeronautics and Space Administration; National Science Foundation; German Research Foundation; European Research Council
<i>Conference Session Chair/Organizer</i>	Lunar and Planetary Science Conference; Goldschmidt Conference
<i>Departmental Committees</i>	Co-chair, Graduate Student Recruiting Committee; Co-chair, Colloquium Committee

<b>Teaching</b>	L19 EPSc 171A: The Solar System	2017, 2018, 2019, 2020, 2021, 2022
	L19 EPSc 446 : Stable Isotope Geochemistry	2017, 2021
	L19 EPSc 566 : Advances in Stable Isotope Geochemistry	2018, 2020
<b>Mentoring</b>	Miriam Gammerman, Undergraduate, Washington University in St. Louis	2021 – present
	Judy Zhang, Undergraduate, Washington University in St. Louis	2021 – present
	Juan Xu, Visiting Graduate Student, University of Science and Technology of China	2019 – 2020
	Piers Koefoed, MCSS Postdoc Fellow, Washington University in St. Louis	2018 – present
	Mason Neuman, Graduate Student, Washington University in St. Louis	2018 – present
	Haiyang Liu, Visiting Postdoc Fellow, Institute of Oceanology, Chinese Academy of Sciences	2018 – 2019
	Carina Gerritzen, Visiting Undergraduate, Universität zu Köln, Germany	2018
	Chen Zhao, Visiting Undergraduate, China University of Geosciences, Wuhan	2018
	Hannah Bloom, Undergraduate, Washington University in St. Louis	2017 – 2020
	Brenna Tuller-Ross, Masters Student, Washington University in St. Louis	2017 – 2019
	Heather Lee, Undergraduate, Washington University in St. Louis	2017
	Annabel Shu, Undergraduate, Washington University in St. Louis	2017
	Zhen Tian, Graduate Student, Washington University in St. Louis	2016 – 2021
Wilson Kuhnel, Undergraduate, Harvard University	2015 – 2016	

**Professional  
Affiliations**

Geochemical Society  
Meteoritical Society  
American Geophysical Union

**Selected  
Media Coverages**

**Forbes:** [Martian Blues: Did Planet's Size Affect Its Ability To Hold Onto Water?](#)

**NPR:** [Mars Had Liquid Water On Its Surface. Here's Why Scientists Think It Vanished](#)

**TIME:** [Mars Was Always Destined to Die](#)

**Forbes:** [Doomed From The Start, Mars May Have Never Had Enough Water For Life](#)

**Newsweek:** [How Mars Lost Its Water, the Key Ingredient of Life](#)

**POPULAR SCIENCE:** [Mars may be too small to have ever been habitable](#)

**Forbes:** [What a nuclear test can teach us about the Moon](#)

**NBC:** [Moon's birth may have vaporized most of Earth, study shows](#)

**POPULAR SCIENCE:** [New evidence shows the moon formed from melted bits of Earth](#)

**The Christian Science Monitor:** [Was the birth of our moon more violent than we thought?](#)

**RT:** [Boom rescaled: 'Extremely giant impact' may be behind making of Earth's moon](#)

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