

References to Table 2.

- Bigalke, M., Weyer, S., Kobza, J. and Wilcke, W. (2010a) Stable Cu and Zn isotope ratios as tracers of sources and transport of Cu and Zn in contaminated soil. *Geochimica et Cosmochimica Acta* 74, 6801-6813.
- Bigalke, M., Weyer, S. and Wilcke, W. (2010b) Stable copper isotopes: A novel tool to trace copper behavior in hydromorphic soils. *Soil Science Society of America Journal* 74, 60-73.
- Chen, H., Moynier, F., Humayun, M., Bishop, M.C. and Williams, J.T. (2016) Cosmogenic effects on Cu isotopes in IVB iron meteorites. *Geochimica et Cosmochimica Acta* 182, 145-154.
- Hou, Q.H., Zhou, L., Gao, S., Zhang, T., Feng, L.P. and Yang, L. (2016) Use of Ga for mass bias correction for the accurate determination of copper isotope ratio in the NIST SRM 3114 Cu standard and geological samples by MC-ICPMS. *Journal of Analytical Atomic Spectrometry* 31, 280-287.
- Huang, J., Liu, S.A., Wörner, G., Yu, H.M. and Xiao, Y.L. (2016) Copper isotope behavior during extreme magma differentiation and degassing: a case study on Laacher See phonolite tephra (East Eifel, Germany). *Contributions to Mineralogy and Petrology* 171, 1-16.
- Kidder, J.A., Voinot, A., Sullivan, K.V., Chipley, D., Valentino, M., Layton-Matthews, D. and Leybourne, M. (2020) Improved ion-exchange column chromatography for Cu purification from high-Na matrices and isotopic analysis by MC-ICPMS. *Journal of Analytical Atomic Spectrometry* 35, 776-783.
- Li, J., Tang, S.H., Zhu, X.K., Li, Z.H., Li, S.Z., Yan, B., Wang, Y., Sun, J., Shi, Y., Dong, A., Belshaw, N.S., Zhang, X.C., Liu, S.A., Liu, J.H., Wang, D.L., Jiang, S.Y., Hou, K.J. and Cohen, A.S. (2019) Basaltic and solution reference materials for iron, copper and zinc isotope measurements. *Geostandards and Geoanalytical Research* 43, 163-175.
- Li, J., Zhong, Q.H., Zhang, L., Yu, H.X., Wang, Z.Y. and Bao, H.Y. (2022) A two-stage column protocol for the separation of Cu from geological materials and high-precision Cu

- isotopic analysis on a MC-ICP-MS. *Journal of Analytical Atomic Spectrometry* 37, 849-860.
- Little, S.H., Munson, S., Prytulak, J., Coles, B.J., Hammond, S.J. and Widdowson, M. (2019) Cu and Zn isotope fractionation during extreme chemical weathering. *Geochimica et Cosmochimica Acta* 263, 85-107.
- Little, S.H., Vance, D., McManus, J., Severmann, S. and Lyons, T.W. (2017) Copper isotope signatures in modern marine sediments. *Geochimica et Cosmochimica Acta* 212, 253-273.
- Liu, S.A., Huang, J., Liu, J.G., Wörner, G., Yang, W., Tang, Y.J., Chen, Y., Tang, L.M., Zheng, J.P. and Li, S.G. (2015) Copper isotopic composition of the silicate Earth. *Earth and Planetary Science Letters* 427, 95-103.
- Liu, S.A., Li, D.D., Li, S.G., Teng, F.Z., Ke, S., He, Y.S. and Lu, Y.H. (2014a) High-precision copper and iron isotope analysis of igneous rock standards by MC-ICP-MS. *Journal of Analytical Atomic Spectrometry* 29, 122-133.
- Liu, S.A., Teng, F.Z., Li, S.G., Wei, G.J., Ma, J.L. and Li, D.D. (2014b) Copper and iron isotope fractionation during weathering and pedogenesis: Insights from saprolite profiles. *Geochimica et Cosmochimica Acta* 146, 59-75.
- Moeller, K., Schoenberg, R., Pedersen, R.B., Weiss, D. and Dong, S. (2012) Calibration of the newcertified reference materials ERM-AE633 and ERM-AE647 for copper and IRMM-3702 for zinc isotope amount ratio determinations. *Geostandards and Geoanalytical Research* 36, 177-199.
- Moynier, F., Koeberl, C., Beck, P., Jourdan, F. and Telouk, P. (2010) Isotopic fractionation of Cu in tektites. *Geochimica et Cosmochimica Acta* 74, 799-807.
- Savage, P.S., Moynier, F., Chen, H., Shofner, G., Siebert, J., Badro, J. and Puchtel, I.S. (2015) Copper isotope evidence for large-scale sulphide fractionation during Earth's differentiation. *Geochemical Perspectives Letters* 1, 53-64.
- Sossi, P.A., Halverson, G.P., Nebel, O. and Eggins, S.M. (2015) Combined separation of Cu, Fe and Zn from rock matrices and improved analytical protocols for stable isotope

- determination. *Geostandards and Geoanalytical Research* 39, 129-149.
- Sullivan, K., Kidder, J.A., Junqueira, T., Vanhaecke, F. and Leybourne, M.I. (2022) Emerging applications of high-precision Cu isotopic analysis by MC-ICP-MS. *Science of The Total Environment* 838, 156084.
- Sullivan, K., Layton Matthews, D., Leybourne, M., Kidder, J., Mester, Z. and Yang, L. (2020) Copper Isotopic Analysis in Geological and Biological Reference Materials by MC-ICP-MS. *Geostandards and Geoanalytical Research* 44, 349-362.
- Weinstein, C., Moynier, F., Wang, K., Paniello, R., Foriel, J., Catalano, J. and Pichat, S. (2011) Isotopic fractionation of Cu in plants. *Chemical Geology* 286, 266-271.
- Yuan, H.L., Yuan, W.T., Bao, Z.A., Chen, K.Y., Huang, F. and Liu, S.G. (2016) Development of two new copper isotope standard solutions and their copper isotopic compositions. *Geostandards and Geoanalytical Research* 41, 77-84.