# UCLA SIMS

## 2023 References


1. Zhang, B., Lehnert, K.A., Rubin, A.E., McKeegan, K.D., Warren, P.H., Mays, J.L., Profeta, L.R., Johansson, A.K., Ni, P., Young, E.D. and Kyte, F.T. (2023) The UCLA Cosmochemistry Database. *Scientific Data 10*, 874. https://doi.org/10.1038/s41597-023-02807-7

2. Augustin C.T., Mungall J.E., Schutesky M.E., Chamberlain K.R., Ernst R., and Garcia V.B. (2023) U-Pb in-situ SIMS baddeleyite and zircon dates and thermodynamic modeling of the Mangabal Complex: Indications of asthenospheric mantle influence in the formation of layered intrusions of the Brasília orogen. *Gondwana Research* 122, 93–111. https://doi.org/10.1016/j.gr.2023.06.007

3. H.M. Kirkpatrick, T.M. Harrison, M. Ibanez-Mejia, F.L.H. Tissot, S.A. MacLennan, and E.A. Bell (2023) Temperature and co-crystallization effects on Zr isotopes: A case study of the La Posta igneous complex. Geochim. Cosmochim. Acta 352, 69-85. https://doi.org/10.1016/j.gca.2023.05.004

4. M. Vogt, W.H, Schwarz, A.K. Schmitt, J. Schmitt, M. Trieloff, T.M. Harrison, and E.A. Bell (2023) Graphitic inclusions in zircon from Early Phanerozoic S-type granite: Implications for the preservation of Hadean biosignatures. Geochem. Cosmochim. Acta 349, 23–40. https://doi.org/10.1016/j.gca.2023.03.022

5. Dunham, E.T., Sheikh, A., Opara, D., Matsuda, N., Liu, M.-C. and McKeegan, K.D. (2023) Calcium–aluminum-rich inclusions in non-carbonaceous chondrites: Abundances, sizes, and mineralogy. Meteoritics and Planetary Sci. 58, 643–671. https://doi.org/10.1111/maps.13975

6. T.M. Harrison (2023) On a scientific approach for deep time investigations. Perspec. Earth Space Sci. 4, 1–10, 10.1029/2022CN000193. http://dx.doi.org/10.1029/2022CN000193

7. Szumila, I., Trail, D., Erickson, T., Simon, J.I., Wielicki, M.M., Lapen, T., Nakajima, M., Fries, M., Bell, E.A. (2023) Microstructural changes and Pb mobility during the zircon to reidite transformation: implications for planetary impact chronology. American Mineralogist 108(8), 1516–1529. https://doi.org/10.2138/am-2022-8604

8. Marin-Carbonne, J., McKeegan, K. D., Davis, A. M., MacPherson, G. J., Mendybaev, R. A., & Richter, F. M. (2023) In situ oxygen, magnesium, and silicon isotopic compositions of the FUN inclusion Vigarano 1623-5. *Meteoritics & Planetary Science* 58, 546–571. https://doi.org/10.1111/maps.13971

9. Chowdhury W., Trail D., Miller M., & Savage P. (2023) Eoarchean and Hadean melts reveal arc-like trace element and isotopic signatures. *Nature Communications* 14:1140. https://doi.org/10.1038/s41467-023-36538-5

10. Cavole, Leticia Maria, Karin E. Limburg, Natalya D. Gallo, Anne Gro Vea Salvanes, Arturo Ramírez-Valdez, Lisa A. Levin, Octavio Aburto Oropeza, Andreas Hertwig, Ming-Chang Liu, and Kevin D. McKeegan (2023) "Otoliths of marine fishes record evidence of low oxygen, temperature and pH conditions of deep Oxygen Minimum Zones." *Deep Sea Research Part I: Oceanographic Research Papers* 191: 103941. https://doi.org/10.1016/j.dsr.2022.10394

11. Greenwood, R. C., Franchi, I. A., Findlay, R., Malley, J. A., Ito, M., Yamaguchi, A., Makoto Kimura , Naotaka Tomioka, Masayuki Uesugi, Naoya Imae, Naoki Shirai, Takuji Ohigashi, Ming-Chang Liu,

Kaitlyn A. McCain, Nozomi Matsuda, Kevin D. McKeegan, Kentaro Uesugi , Aiko Nakato, Kasumi Yogata, Hayato Yuzawa, Yu Kodama, Akira Tsuchiyama, Masahiro Yasutake, Kaori Hirahara, Akihisa Tekeuchi, Shun Sekimoto, Ikuya Sakurai, Ikuo Okada, Yuzuru Karouji , Satoru Nakazawa, Tatsuaki Okada , Takanao Saiki, Satoshi Tanaka, Fuyuto Terui, Makoto Yoshikawa, Akiko Miyazaki, Masahiro Nishimura, Toru Yada, Masanao Abe, Tomohiro Usui, Seiichiro Watanabe, and Yuichi Tsuda (2023) Oxygen isotope evidence from Ryugu samples for early water delivery to Earth by CI chondrites. *Nature Astronomy*, *7*(1), 29–38. https://doi.org/10.1038/s41550-022-01824-7

12. Kaitlyn A McCain, Nozomi Matsuda, Ming-Chang Liu, Kevin D McKeegan, Akira Yamaguchi, Makoto Kimura, Naotaka Tomioka, Motoo Ito, Naoya Imae, Masayuki Uesugi, Naoki Shirai, Takuji Ohigashi, Richard C Greenwood, Kentaro Uesugi, Aiko Nakato, Kasumi Yogata, Hayato Yuzawa, Yu Kodama, Kaori Hirahara, Ikuya Sakurai, Ikuo Okada, Yuzuru Karouji, Satoru Nakazawa, Tatsuaki Okada, Takanao Saiki, Satoshi Tanaka, Fuyuto Terui, Makoto Yoshikawa, Akiko Miyazaki, Masahiro Nishimura, Toru Yada, Masanao Abe, Tomohiro Usui, Sei-ichiro Watanabe, Yuichi Tsuda. (2023) Early fluid activity on Ryugu inferred by isotopic analyses of carbonates and magnetite. *Nature Astronomy* 7, 309–317. https://doi.org/10.1038/s41550-022-01863-0