

**Publications (h-index = 59 on ISI, 64 on Google Scholar)**  
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*Edited books/Special volumes:*

G.M. Henderson, D.R. Hilton and **D. Vance** (eds.) (2006) Special issue in honor of R.K. O'Nions. *Chem. Geol.*, 226, Issues 3-4, 275 pp.

**D. Vance**, W. Müller and I.M. Villa (eds.) (2003) Geochronology: linking the isotope record with petrology and textures, Special Publication of the Geological Society, 220, 266pp.

*Refereed academic journal publications (ISI-listed only):*

145. Du, J., B.A. Haley, A.C. Mix, A.N. Abbott, J. McManus, **D. Vance** (2022) Reactive-transport modelling of neodymium and its radiogenic isotope in deep-sea sediments: the roles of authigenesis, marine silicate weathering and reverse weathering. *Earth and Planetary Science Letters* 596, 117792.
144. Deng, K., S. Yang, J. Du, E. Lian, **D. Vance** (2022) Dominance of benthic flux of REEs on continental shelves: implications for oceanic budgets. *Geochemical Perspective Letters* 22, 26-30.
143. Chiu, C.F., T.C. Sweere, M.O. Clarkson, G.F. de Souza, R. Hennekam, **D. Vance** (2022) Covariation systematics of uranium and molybdenum isotope reveal pathways for descent into euxinia in Mediterranean sapropels. *Earth and Planetary Science Letters* 585, 117527.
142. Lemaitre, N., J. Du, G.F. de Souza, C. Archer, **D. Vance** (2022) The essential bioactive role of nickel in the oceans: evidence from nickel isotopes. *Earth and Planetary Science Letters* 584, 117513.
141. Müsing, K., M.O. Clarkson, **D. Vance** (2022) The meaning of carbonate Zn isotope records: constraints from a detailed geochemical and isotope study of bulk deep-sea carbonates. *Geochimica et Cosmochimica Acta* 324, 26-43.
140. de Souza, G.D., **D. Vance**, M. Sieber, T.M. Conway, S.H. Little (2022) Re-assessing the influence of particle-hosted sulphide precipitation on the marine cadmium cycle. *Geochimica et Cosmochimica Acta* 322, 275-296.
139. Suhrhoff, T.J., J. Rickli, M. Christl, E.G. Vologina, V. Pham, M. Belhadj, E. Sklyarov, C. Jeandel, **D. Vance** (2022) Source to sink analysis of weathering fluxes in Lake Baikal and its watershed based on riverine fluxes, elemental lake budgets, REE patterns, and radiogenic (Nd, Sr) and <sup>10</sup>Be/<sup>9</sup>Be isotopes. *Geochimica et Cosmochimica Acta* 321, 133-154.
138. Sun, M., C. Archer, **D. Vance** (2021) New methods for the chemical isolation and stable isotope analysis of multiple transition metals, with application to the Earth Sciences. *Geostandards and Geoanalytical Research* 45, 643-658.
137. Clarkson, M.O., R. Hennekam, T.C. Sweere, M.B. Andersen, G.-G. Reichart, **D. Vance** (2021) Carbonate associated uranium isotopes as a novel redox indicator in oxidatively disturbed reducing sediments. *Geochimica et Cosmochimica Acta* 311, 12-28.
136. He, Z., M.O. Clarkson, M.B. Andersen, C. Archer, T.C. Sweere, P. Kraal, A. Guthäuser, F. Huang, **D. Vance** (2021) Temporally and spatially dynamic redox conditions on an upwelling margin: the impact on couple sedimentary Mo and U isotope systematics, and implications for the Mo-U paleoredox proxy. *Geochimica et Cosmochimica Acta* 309, 251-271.
135. Sieber, M., T.M. Conway, G.F. de Souza, C.S. Hassler, M.J. Ellwood, **D. Vance** (2021) Isotopic fingerprinting of biogeochemical processes and iron sources in the iron-limited surface Southern Ocean. *Earth and Planetary Science Letters* 567, 116967.
134. Shalev, S., T.R.R. Bontognali, **D. Vance** (2021) Sabkha dolomite as an archive for the magnesium isotope composition of seawater. *Geology* 49, 253-257.

133. Sweere, T., R. Hennekam, **D. Vance**, G.-J. Reichart (2021) Molybdenum isotope constraints on the temporal development of sulfidic conditions during Mediterranean sapropel formation. *Geochemical Perspective Letters* 17, 16-20.
132. Revels, B.N., J. Rickli, C.A. Moura, **D. Vance** (2021) The riverine flux of molybdenum and its isotopes to the ocean: weathering processes and dissolved-particulate partitioning in the Amazon Basin. *Earth and Planetary Science Letters* 559, 116733.
131. Clarkson, M.O., T.M. Lenton, M.B. Andersen, M.-L. Bagard, A.J. Dickson, **D. Vance** (2021) Upper limits on the extent of seafloor anoxia during the PETM from uranium isotopes. *Nature Communications* 12, article number 399, doi.org/10.1038/s41467-020-20486-5.
130. Revels, B.N., J. Rickli, C.A. Moura, **D. Vance** (2021) Nickel and its isotopes in the Amazon Basin: the impact of the weathering regime and delivery to the oceans. *Geochimica et Cosmochimica Acta* 293, 344-364.
129. Andersen, M.B., A. Matthews, A., M. Bar-Matthews, **D. Vance** (2020) Rapid onset of ocean anoxia shown by high U and low Mo isotope compositions of sapropel S1. *Geochemical Perspective Letters*, 10.7185/geochemlet.2027.
128. Little, S.H., C. Archer, J. McManus, J. Najorka, A.V. Wegorzewski, **D. Vance** (2020) Towards balancing the oceanic Ni budget. *Earth and Planetary Science Letters* 547, 116461.
127. Lemaitre, N., G.F. de Souza, C. Archer, R.-M. Wang, H. Planquette, G. Sarthou, **D. Vance** (2020) Pervasive sources of isotopically light zinc in the North Atlantic Ocean. *Earth and Planetary Science Letters* 539, 116216.
126. Clarkson, M.O., K. Müsing, M.B. Andersen, **D. Vance** (2020) Examining pelagic carbonate-rich sediments as an archive for authigenic uranium and molybdenum isotopes using reductive cleaning and leaching experiments. *Chemical Geology* 539, 119412.
125. C. Archer, **D. Vance**, A. Milne, M.C. Lohan (2020) The oceanic biogeochemistry of nickel and its isotopes: new data from the South Atlantic and the Southern Ocean biogeochemical divide. *Earth and Planetary Science Letters* 535, 116118.
124. M. Sieber, T.M. Conway, G.F. de Souza, C.S. Hassler, M.J. Ellwood, M.J., **D. Vance** (2020) Cycling of zinc and its isotopes across multiple zones of the Southern Ocean: Insights from the Antarctic Circumnavigation Expedition. *Geochimica et Cosmochimica Acta* 268, 310-324.
123. Shalev, N., T.R.R. Bontognali, C.G. Wheat, **D. Vance** (2019) New isotope constraints on the oceanic Mg budget point to cryptic modern dolomite formation. *Nature Communications* 10, article number 5646, doi.org/10.1038/s41467-019-13514-6.
122. Sieber, M., T.M. Conway, G.F. de Souza, C.S. Hassler, M.J. Ellwood, M.J., **D. Vance** (2019) High-resolution Cd isotope systematics in multiple zones of the Southern Ocean from the Antarctic Circumnavigation Expedition. *Earth and Planetary Science Letters* 527, 115799.
121. J.T. Suhrhoff, J. Rickli, K. Crocket, E. Bura Nakic, **D. Vance** (2019) Behavior of Be in the weathering environment and its delivery to the ocean. *Geochimica et Cosmochimica Acta* 265, 48-68.
120. **D. Vance**, G.F. de Souza, Y. Zhao, J.T. Cullen, M.C. Lohan (2019) The relationship between zinc, its isotopes and the major nutrients in the North-East Pacific. *Earth and Planetary Science Letters* 525, 115748.
119. M. Köbberich, **D. Vance** (2019) Zn isotope fractionation during uptake into marine phytoplankton: implications for oceanic zinc isotopes. *Chemical Geology* 523, 154-161.
118. Ciscato, E.R., T.R.R. Bontognali, S.W. Poulton, **D. Vance** (2019) Copper and its isotopes in organic-rich sediments: from the modern Peru Margin to Archean shales. *Geosciences* 9, 325, doi:10.3390/geosciences9080325.

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116. M. Sieber, T.M. Conway, G.F. de Souza, H. Obata, S. Takano, Y. Sohrin, **D. Vance** (2019) Physical and biogeochemical controls on the distribution of dissolved cadmium and its isotopes in the Southwest Pacific Ocean. *Chemical Geology* 511, 494-509.
115. R.M. Wang, C. Archer, A.R. Bowie, **D. Vance** (2019) Zinc and nickel isotopes in seawater from the Indian Sector of the Southern Ocean: the impact of natural iron fertilization versus Southern Ocean hydrography and biogeochemistry. *Chemical Geology* 511, 452-464
114. A.P. Hasenfratz, S.L. Jaccard, A. Martinez-Garcia, D.M. Sigman, D.A. Hodell, **D. Vance**, S.M. Bernasconi, H. F. Keleven, F. A. Haumann, G.H. Haug (2019) The residence time of Southern Ocean surface waters and the 100,000-year ice age cycle. *Science* 363, 1080-1084.
113. **D. Vance** and S.H. Little (2019) The history, relevance and applications of the periodic system in geochemistry. In: Mingos, D.(ed) *The Periodic Table I. Structure and Bonding* 181, 111-156, Springer, Cham.
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110. M.B. Andersen, A. Matthews, **D. Vance**, M. Bar-Matthews, C. Archer, D.F. de Souza (2018) A 10-fold decline in the deep Easter Mediterranean thermohaline overturning circulation during the last interglacial. *Earth and Planetary Science Letters* 503, 58-67.
109. R. Schlitzer et al., including **D. Vance** (2018) The GEOTRACES intermediate data product 2017. *Chemical Geology* 493, 210-223.
108. E.R. Ciscato, T.R.R. Bontognali, **D. Vance** (2018) Nickel and its isotopes in organic-rich sediments: implications for oceanic budgets and a potential record of ancient seawater. *Earth and Planetary Science Letters* 494, 239-250.
107. G.F. de Souza, S.P. Khaitwala, M.P. Hain, S.H. Little, **D. Vance** (2018) On the origin of the marine zinc-silicon correlation. *Earth and Planetary Science Letters* 492, 22-34.
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103. J. Rickli, R.S. Hindshaw, J. Leuthold, J.L. Wadham, K.W. Burton, **D. Vance** (2017) Impact of glacial activity on the weathering of hafnium isotopes – observations from southwest Greenland. *Geochimica et Cosmochimica Acta* 215, 295-316.
102. **D. Vance**, C. Archer, S.H. Little, M. Köbberich, G.F. de Souza (2017) The oceanic cycles of the transition metals and their isotopes. *Acta Geochimica* 36, 359-362
101. S.H. Little, **D. Vance**, J. McManus, S. Severmann, T. Lyons (2017) Copper isotope signatures in modern marine sediments. *Geochimica et Cosmochimica Acta* 212, 263-273.
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99. C. Kerl, R. Lohmayer, E. Bura-Nakic, **D. Vance**, B. Planer-Friedrich (2017) Experimental confirmation of isotope fractionation in thiomolybdates using ion chromatographic separation and detection by multi-collector ICP-MS. *Analytical Chemistry* 89, 3123-3129.
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94. **D. Vance**, A. Matthews, A. Keech, C. Archer, G. Hudson, J. Pett-Ridge, O.A. Chadwick (2016) The behaviour of Cu and Zn isotopes during soil development: controls on the dissolved load of rivers. *Chemical Geology* 445, 36-53.
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86. S.H. Little, **D. Vance**, T.W. Lyons, J. McManus (2015) Controls on trace metal authigenic enrichment in reducing sediments: insights from modern oxygen-deficient settings. *American Journal of Science* 315, 77-119.
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