# Olivier J Rouxel

List of Publications by Year
in descending order



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|---|---|---|---|
| 114 papers | 10,034 citations | 30070 54 h-index | 33894 99 g-index |
| 117 all docs | 117 docs citations | 117 times ranked | 6420 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Iron Formation: The Sedimentary Product of a Complex Interplay among Mantle, Tectonic, Oceanic, and Biospheric Processes. Economic Geology, 2010, 105, 467-508. | 3.8 | 752 |
| 2 | Iron Isotope Constraints on the Archean and Paleoproterozoic Ocean Redox State. Science, 2005, 307, 1088-1091. | 12.6 | 457 |
| 3 | Evidence for oxygenic photosynthesis half a billion years before the Great Oxidation Event. Nature Geoscience, 2014, 7, 283-286. | 12.9 | 444 |
| 4 | Rare Earth Element and yttrium compositions of Archean and Paleoproterozoic Fe formations revisited: New perspectives on the significance and mechanisms of deposition. Geochimica Et Cosmochimica Acta, 2010, 74, 6387-6405. | 3.9 | 373 |
| 5 | The evolution of the marine phosphate reservoir. Nature, 2010, 467, 1088-1090. | 27.8 | 361 |
| 6 | Aerobic bacterial pyrite oxidation and acid rock drainage during the Great Oxidation Event. Nature, 2011, 478, 369-373. | 27.8 | 299 |
| 7 | Metal Stable Isotopes in Paleoceanography. Annual Review of Earth and Planetary Sciences, 2007, 35, 717-746. | 11.0 | 293 |
| 8 | Mass spectrometry and natural variations of iron isotopes. Mass Spectrometry Reviews, 2006, 25, 515-550. | 5.4 | 261 |
| 9 | Suboxic deep seawater in the late Paleoproterozoic: Evidence from hematitic chert and iron formation related to seafloor-hydrothermal sulfide deposits, central Arizona, USA. Earth and Planetary Science Letters, 2007, 255, 243-256. | 4.4 | 228 |
| 10 | Iron isotope fractionation during oceanic crust alteration. Chemical Geology, 2003, 202, 155-182. | 3.3 | 219 |
| 11 | Evidence for Microbial Carbon and Sulfur Cycling in Deeply Buried Ridge Flank Basalt. Science, 2013, 339, 1305-1308. | 12.6 | 210 |
| 12 | Iron Isotope Systematics. Reviews in Mineralogy and Geochemistry, 2017, 82, 415-510. | 4.8 | 205 |
| 13 | Subsurface processes at the lucky strike hydrothermal field, Mid-Atlantic ridge: evidence from sulfur, selenium, and iron isotopes. Geochimica Et Cosmochimica Acta, 2004, 68, 2295-2311. | 3.9 | 200 |
| 14 | Preservation of iron(II) by carbon-rich matrices in a hydrothermal plume. Nature Geoscience, 2009, 2, 197-201. | 12.9 | 200 |
| 15 | Integrated Fe- and S-isotope study of seafloor hydrothermal vents at East Pacific Rise 9â€“10Â°N. Chemical Geology, 2008, 252, 214-227. | 3.3 | 199 |
| 16 | S-33 constraints on the seawater sulfate contribution in modern seafloor hydrothermal vent sulfides. Geochimica Et Cosmochimica Acta, 2007, 71, 1170-1182. | 3.9 | 184 |
| 17 | Iron-oxidizing microbial ecosystems thrived in late Paleoproterozoic redox-stratified oceans. Earth and Planetary Science Letters, 2009, 286, 230-242. | 4.4 | 166 |
| 18 | Atmospheric Sulfur in Archean Komatiite-Hosted Nickel Deposits. Science, 2009, 326, 1086-1089. | 12.6 | 152 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Iron isotope composition of some Archean and Proterozoic iron formations. Geochimica Et Cosmochimica Acta, 2012, 80, 158-169. | 3.9 | 147 |
| 20 | Zinc stable isotopes in seafloor hydrothermal vent fluids and chimneys. Earth and Planetary Science Letters, 2008, 269, 17-28. | 4.4 | 143 |
| 21 | Sulfur isotope measurement of sulfate and sulfide by high-resolution MC-ICP-MS. Chemical Geology, 2008, 253, 102-113. | 3.3 | 143 |
| 22 | Natural variations of Se isotopic composition determined by hydride generation multiple collector inductively coupled plasma mass spectrometry. Geochimica Et Cosmochimica Acta, 2002, 66, 3191-3199. | 3.9 | 138 |
| 23 | Rare earth element abundances in hydrothermal fluids from the Manus Basin, Papua New Guinea: Indicators of sub-seafloor hydrothermal processes in back-arc basins. Geochimica Et Cosmochimica Acta, 2010, 74, 5494-5513. | 3.9 | 137 |
| 24 | Coupled molybdenum, iron and uranium stable isotopes as oceanic paleoredox proxies during the Paleoproterozoic Shunga Event. Chemical Geology, 2013, 362, 193-210. | 3.3 | 129 |
| 25 | Reviews and syntheses: The biogeochemical cycle of silicon in the modern ocean. Biogeosciences, 2021, 18, 1269-1289. | 3.3 | 124 |
| 26 | Multiple sulphur and iron isotope composition of detrital pyrite in Archaean sedimentary rocks: A new tool for provenance analysis. Earth and Planetary Science Letters, 2009, 286, 436-445. | 4.4 | 113 |
| 27 | Oxygen dynamics in the aftermath of the Great Oxidation of Earthâ€™s atmosphere. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16736-16741. | 7.1 | 112 |
| 28 | Copper Isotope Systematics of the Lucky Strike, Rainbow, and Logatchev Sea-Floor Hydrothermal Fields on the Mid-Atlantic Ridge. Economic Geology, 2004, 99, 585-600. | 3.8 | 110 |
| 29 | Natural Cadmium Isotopic Variations in Eight Geological Reference Materials (NIST SRM 2711, BCR 176,) Tj ETQq1 1 0.784314 rgBT /Ov Geostandards and Geoanalytical Research, 2005, 29, 95-106. | 1.9 | 105 |
| 30 | Iron isotope fractionation in subterranean estuaries. Geochimica Et Cosmochimica Acta, 2008, 72, 3413-3430. | 3.9 | 105 |
| 31 | Iron isotope fractionation in a buoyant hydrothermal plume, 5Â°S Mid-Atlantic Ridge. Geochimica Et Cosmochimica Acta, 2009, 73, 5619-5634. | 3.9 | 100 |
| 32 | Antimony isotope variations in natural systems and implications for their use as geochemical tracers. Chemical Geology, 2003, 200, 25-40. | 3.3 | 98 |
| 33 | Surface-Generated Mesoscale Eddies Transport Deep-Sea Products from Hydrothermal Vents. Science, 2011, 332, 580-583. | 12.6 | 98 |
| 34 | GEOTRACES IC1 (BATS) contaminationâ€prone trace element isotopes Cd, Fe, Pb, Zn, Cu, and Mo intercalibration. Limnology and Oceanography: Methods, 2012, 10, 653-665. | 2.0 | 98 |
| 35 | Ultra-diffuse hydrothermal venting supports Fe-oxidizing bacteria and massive umber deposition at 5000â€‰m off Hawaii. ISME Journal, 2011, 5, 1748-1758. | 9.8 | 97 |
| 36 | Oxygen consumption rates in subseafloor basaltic crust derived from a reaction transport model. Nature Communications, 2013, 4, 2539. | 12.8 | 96 |

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|---|---|---|---|
| 37 | Cobalt and marine redox evolution. Earth and Planetary Science Letters, 2014, 390, 253-263. | 4.4 | 95 |
| 38 | Nickel Isotope Variations in Terrestrial Silicate Rocks and Geological Reference Materials Measured by <scp>MC</scp>â€‹scp>ICP</scp>â€‹scp>MS</scp>. Geostandards and Geoanalytical Research, 2013, 37, 297-317. | 3.1 | 91 |
| 39 | Uranium in iron formations and the rise of atmospheric oxygen. Chemical Geology, 2013, 362, 82-90. | 3.3 | 91 |
| 40 | Geodiversity of hydrothermal processes along the Mid-Atlantic Ridge and ultramafic-hosted mineralization: A new type of oceanic Cu-Zn-Co-Au volcanogenic massive sulfide deposit. Geophysical Monograph Series, 2010, , 321-367. | 0.1 | 89 |
| 41 | Sulfur isotope evidence for microbial sulfate reduction in altered oceanic basalts at ODP Site 801. Earth and Planetary Science Letters, 2008, 268, 110-123. | 4.4 | 86 |
| 42 | Coupled Fe and S isotope variations in pyrite nodules from Archean shale. Earth and Planetary Science Letters, 2014, 392, 67-79. | 4.4 | 86 |
| 43 | Inter-calibration of a proposed new primary reference standard AA-ETH Zn for zinc isotopic analysis. Journal of Analytical Atomic Spectrometry, 2017, 32, 415-419. | 3.0 | 86 |
| 44 | Iron isotope systematics in estuaries: The case of North River, Massachusetts (USA). Geochimica Et Cosmochimica Acta, 2009, 73, 4045-4059. | 3.9 | 85 |
| 45 | Nickel isotope fractionation during tropical weathering of ultramafic rocks. Chemical Geology, 2015, 402, 68-76. | 3.3 | 83 |
| 46 | Sulfur-33 constraints on the origin of secondary pyrite in altered oceanic basement. Geochimica Et Cosmochimica Acta, 2012, 87, 323-340. | 3.9 | 80 |
| 47 | Germanium isotopic variations in igneous rocks and marine sediments. Geochimica Et Cosmochimica Acta, 2006, 70, 3387-3400. | 3.9 | 77 |
| 48 | Redox Speciation and Distribution within Diverse Iron-dominated Microbial Habitats at Loihi Seamount. Geomicrobiology Journal, 2009, 26, 606-622. | 2.0 | 77 |
| 49 | Multiple Sulfur and Iron Isotope Composition of Magmatic Ni-Cu-(PGE) Sulfide Mineralization from Eastern Botswana. Economic Geology, 2012, 107, 105-116. | 3.8 | 71 |
| 50 | Dissolved and particulate organic carbon in hydrothermal plumes from the East Pacific Rise, 9Â°50â€²N. Deep-Sea Research Part I: Oceanographic Research Papers, 2011, 58, 922-931. | 1.4 | 65 |
| 51 | Glacial influence on the geochemistry of riverine iron fluxes to the Gulf of Alaska and effects of deglaciation. Geophysical Research Letters, 2011, 38, n/a-n/a. | 4.0 | 60 |
| 52 | Total dissolvable and dissolved iron isotopes in the water column of the Peru upwelling regime. Geochimica Et Cosmochimica Acta, 2015, 162, 66-82. | 3.9 | 60 |
| 53 | Comparing orthomagmatic and hydrothermal mineralization models for komatiite-hosted nickel deposits in Zimbabwe using multiple-sulfur, iron, and nickel isotope data. Mineralium Deposita, 2014, 49, 75-100. | 4.1 | 56 |
| 54 | The Joffre banded iron formation, Hamersley Group, Western Australia: Assessing the palaeoenvironment through detailed petrology and chemostratigraphy. Precambrian Research, 2016, 273, 12-37. | 2.7 | 55 |

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| 55 | Timeâ€series analysis of two hydrothermal plumes at 9Â°50â€²N East Pacific Rise reveals distinct, heterogeneous bacterial populations. Geobiology, 2012, 10, 178-192. | 2.4 | 54 |
| 56 | Pleistocene recycling of copper at a porphyry system, Atacama Desert, Chile: Cu isotope evidence. Mineralium Deposita, 2011, 46, 1-7. | 4.1 | 53 |
| 57 | The 2.1 Ga Old Francevillian Biota: Biogenicity, Taphonomy and Biodiversity. PLoS ONE, 2014, 9, e99438. | 2.5 | 53 |
| 58 | Geochemistry and iron isotope systematics of hydrothermal plume fall-out at East Pacific Rise 9Â°50â€²N. Chemical Geology, 2016, 441, 212-234. | 3.3 | 53 |
| 59 | Geochemical and iron isotopic insights into hydrothermal iron oxyhydroxide deposit formation at Loihi Seamount. Geochimica Et Cosmochimica Acta, 2018, 220, 449-482. | 3.9 | 51 |
| 60 | Variable Ni isotope fractionation between Fe-oxyhydroxides and implications for the use of Ni isotopes as geochemical tracers. Chemical Geology, 2018, 481, 38-52. | 3.3 | 47 |
| 61 | Early stages of core segregation recorded by Fe isotopes in an asteroidal mantle. Earth and Planetary Science Letters, 2015, 419, 93-100. | 4.4 | 44 |
| 62 | Measuring the Form of Iron in Hydrothermal Plume Particles. Oceanography, 2012, 25, 209-212. | 1.0 | 43 |
| 63 | Coupled Ge/Si and Ge isotope ratios as geochemical tracers of seafloor hydrothermal systems: Case studies at Loihi Seamount and East Pacific Rise 9Â°50â€²N. Geochimica Et Cosmochimica Acta, 2015, 167, 93-112. | 3.9 | 43 |
| 64 | Comparative geochemistry of four ferromanganese crusts from the Pacific Ocean and significance for the use of Ni isotopes as paleoceanographic tracers. Geochimica Et Cosmochimica Acta, 2016, 189, 214-235. | 3.9 | 40 |
| 65 | Iron Isotope Variations in Coastal Seawater Determined by Multicollector ICPâ€MS. Geostandards and Geoanalytical Research, 2010, 34, 135-144. | 3.1 | 39 |
| 66 | Iron isotope systematics in Arctic rivers. Comptes Rendus - Geoscience, 2015, 347, 377-385. | 1.2 | 36 |
| 67 | Germanium Isotope Geochemistry. Reviews in Mineralogy and Geochemistry, 2017, 82, 601-656. | 4.8 | 36 |
| 68 | Determination of the copper isotope composition of seawater revisited: A case study from the Mediterranean Sea. Chemical Geology, 2019, 511, 465-480. | 3.3 | 36 |
| 69 | An Intercomparison Study of the Germanium Isotope Composition of Geological Reference Materials. Geostandards and Geoanalytical Research, 2012, 36, 149-159. | 3.1 | 35 |
| 70 | Iron mineral structure, reactivity, and isotopic composition in a South Pacific Gyre ferromanganese nodule over 4 Ma. Geochimica Et Cosmochimica Acta, 2015, 171, 61-79. | 3.9 | 32 |
| 71 | Molybdenum record from black shales indicates oscillating atmospheric oxygen levels in the early Paleoproterozoic. Numerische Mathematik, 2018, 318, 275-299. | 1.4 | 31 |
| 72 | The Role of Paragneiss Assimilation in the Origin of the Voisey's Bay Ni-Cu Sulfide Deposit, Labrador: Multiple S and Fe Isotope Evidence. Economic Geology, 2013, 108, 1459-1469. | 3.8 | 30 |

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| 73 | Native Cu from the oceanic crust: Isotopic insights into native metal origin. Chemical Geology, 2013, 359, 136-149. | 3.3 | 28 |
| 74 | Origin of red beds in the Paleoproterozoic Franceville Basin, Gabon, and implications for sandstone-hosted uranium mineralization. Numerische Mathematik, 2016, 316, 839-872. | 1.4 | 28 |
| 75 | Microbial colonization of basaltic glasses in hydrothermal organic-rich sediments at Guaymas Basin. Frontiers in Microbiology, 2013, 4, 250. | 3.5 | 27 |
| 76 | Ge and Si isotope signatures in rivers: A quantitative multi-proxy approach. Earth and Planetary Science Letters, 2018, 503, 194-215. | 4.4 | 27 |
| 77 | Reâ€"Os results from ODP Site 801: Evidence for extensive Re uptake during alteration of oceanic crust. Chemical Geology, 2008, 248, 256-271. | 3.3 | 25 |
| 78 | Hydrogen and copper isotope analysis of turquoise by SIMS: calibration and matrix effects. Chemical Geology, 2015, 395, 41-49. | 3.3 | 22 |
| 79 | Tracing sources of crustal contamination using multiple S and Fe isotopes in the Hart komatiite-associated Niâ€"Cuâ€"PGE sulfide deposit, Abitibi greenstone belt, Ontario, Canada. Mineralium Deposita, 2016, 51, 919-935. | 4.1 | 22 |
| 80 | Large nickel isotope fractionation caused by surface complexation reactions with hexagonal birnessite. Chemical Geology, 2020, 537, 119481. | 3.3 | 22 |
| 81 | A late Paleoproterozoic (1.74ÂGa) deepâ€sea, lowâ€temperature, ironâ€oxidizing microbial hydrothermal vent community from Arizona, USA. Geobiology, 2021, 19, 228-249. | 2.4 | 22 |
| 82 | Pyrococcus kukulkanii sp. nov., a hyperthermophilic, piezophilic archaeon isolated from a deep-sea hydrothermal vent. International Journal of Systematic and Evolutionary Microbiology, 2016, 66, 3142-3149. | 1.7 | 22 |
| 83 | Iron isotope fractionation in a sulfide-bearing subterranean estuary and its potential influence on oceanic Fe isotope flux. Chemical Geology, 2012, 300-301, 133-142. | 3.3 | 21 |
| 84 | Enargite-luzonite hydrothermal vents in Manus Back-Arc Basin: submarine analogues of high-sulfidation epithermal mineralization. Chemical Geology, 2016, 438, 36-57. | 3.3 | 21 |
| 85 | IRON FORMATION: THE SEDIMENTARY PRODUCT OF A COMPLEX INTERPLAY AMONG MANTLE, TECTONIC, OCEANIC, AND BIOSPHERIC PROCESSES--A REPLY. Economic Geology, 2012, 107, 379-380. | 3.8 | 20 |
| 86 | Biogeochemical insights into microbeâ€"mineralâ€"fluid interactions in hydrothermal chimneys using enrichment culture. Extremophiles, 2015, 19, 597-617. | 2.3 | 20 |
| 87 | Iron Transformation Pathways and Redox Micro-Environments in Seafloor Sulfide-Mineral Deposits: Spatially Resolved Fe XAS and Î´57/54Fe Observations. Frontiers in Microbiology, 2016, 7, 648. | 3.5 | 20 |
| 88 | The isotope composition of inorganic germanium in seawater and deep sea sponges. Geochimica Et Cosmochimica Acta, 2017, 212, 99-118. | 3.9 | 19 |
| 89 | Iron isotope fractionation in iron-organic matter associations: Experimental evidence using filtration and ultrafiltration. Geochimica Et Cosmochimica Acta, 2019, 250, 98-116. | 3.9 | 19 |
| 90 | Triple iron isotope constraints on the role of ocean iron sinks in early atmospheric oxygenation. Science, 2020, 370, 446-449. | 12.6 | 19 |

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| 91 | Trace element proxies of seafloor hydrothermal fluids based on secondary ion mass spectrometry (SIMS) of black smoker chimney linings. Geochimica Et Cosmochimica Acta, 2020, 269, 346-375. | 3.9 | 13 |
| 92 | Depositional setting of the Late Archean Fe oxide- and sulfide-bearing chert and graphitic argillite in the Shaw Dome, Abitibi greenstone belt, Canada. Precambrian Research, 2018, 311, 98-116. | 2.7 | 12 |
| 93 | Ge and Si Isotope Behavior During Intense Tropical Weathering and Ecosystem Cycling. Global Biogeochemical Cycles, 2020, 34, e2019GB006522. | 4.9 | 12 |
| 94 | Origin of the Oligocene manganese deposit at Obrochishte (Bulgaria): Insights from C, O, Fe, Sr, Nd, and Pb isotopes. Ore Geology Reviews, 2020, 122, 103550. | 2.7 | 12 |
| 95 | Sulfur and strontium isotopic study of epithermal mineralization: A case study from the SE Afar Rift, Djibouti. Ore Geology Reviews, 2017, 81, 358-368. | 2.7 | 10 |
| 96 | The Nickel isotope composition of the authigenic sink and the diagenetic flux in modern oceans. Chemical Geology, 2021, 563, 120050. | 3.3 | 9 |
| 97 | Mn-micronodules from the sediments of the Clarion-Clipperton zone (Pacific Ocean): Origin, elemental source, and Fe-Cu-Zn-isotope composition. Chemical Geology, 2021, 580, 120388. | 3.3 | 9 |
| 98 | Active hydrothermal vents in the Woodlark Basin may act as dispersing centres for hydrothermal fauna. Communications Earth & Environment, 2022, 3, . | 6.8 | 9 |
| 99 | A First Look at Dissolved Ge Isotopes in Marine Sediments. Frontiers in Earth Science, 2019, 7, . | 1.8 | 8 |
| 100 | Nickel isotopes and rare earth elements systematics in marine hydrogenetic and hydrothermal ferromanganese deposits. Chemical Geology, 2021, 560, 119999. | 3.3 | 8 |
| 101 | Nickel and Chromium Stable Isotopic Composition of Ureilites: Implications for the Earth's Core Formation and Differentiation of the Ureilite Parent Body. Geophysical Research Letters, 2022, 49, . | 4.0 | 8 |
| 102 | Germanium isotopic systematics in Ge-rich coal from the Lincang Ge deposit, Yunnan, Southwestern China. Chemical Geology, 2011, , . | 3.3 | 7 |
| 103 | 11 Iron Isotope Systematics. , 2017, , 415-510. | | 7 |
| 104 | More than redox, biological organic ligands control iron isotope fractionation in the riparian wetland. Scientific Reports, 2021, 11, 1933. | 3.3 | 5 |
| 105 | Extending the dataset of fluid geochemistry of the Menez Gwen, Lucky Strike, Rainbow, TAG and Snake Pit hydrothermal vent fields: Investigation of temporal stability and organic contribution. Deep-Sea Research Part I: Oceanographic Research Papers, 2022, 179, 103630. | 1.4 | 5 |
| 106 | Ni isotope fractionation during coprecipitation of Fe(III)(oxyhydr)oxides in Si solutions. Chemie Der Erde, 2021, 81, 125714. | 2.0 | 4 |
| 107 | Early Neoproterozoic oxygenation dynamics along the northern margin of the West African Craton, Anti-Atlas Mountains, Morocco. Chemical Geology, 2021, 581, 120404. | 3.3 | 3 |
| 108 | Light Zn and Cu isotope compositions recorded in ferromanganese crusts during the Cenozoic as evidence for hydrothermal inputs in South Pacific deep seawater. Geochimica Et Cosmochimica Acta, 2022, 333, 136-152. | 3.9 | 3 |

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| 109 | Advances in experimental and theoretical isotope geochemistry. Chemical Geology, 2009, 267, 109-110. | 3.3 | 2 |
| 110 | Î´60Ni and Î´13C Composition of Serpentinites and Carbonates of the Tekirova Ophiolite, Turkey, and Meatiq Ophiolite, Egypt. Frontiers in Earth Science, 2021, 9, . | 1.8 | 2 |
| 111 | 7.10 Chemical Characteristics of Sediments and Seawater. Frontiers in Earth Sciences, 2013, , 1457-1514. | 0.1 | 1 |
| 112 | 14 Germanium Isotope Geochemistry. , 2017, , . | | 1 |
| 113 | Does ultrafiltration kinetics bias iron isotope compositions?. Chemical Geology, 2021, 566, 120082. | 3.3 | 1 |
| 114 | Ge/Si and Ge Isotope Fractionation During Glacial and Non-glacial Weathering: Field and Experimental Data From West Greenland. Frontiers in Earth Science, 2021, 9, . | 1.8 | 0 |