# Franck Poitrasson

List of Publications by Year
in descending order



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|---|---|---|---|
| 93 papers | 7,204 citations | 57758 44 h-index | 54911 84 g-index |
| 97 all docs | 97 docs citations | 97 times ranked | 5934 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Investigating the provenance of iron bars from Les Saintesâ€Mariesâ€deâ€laâ€Mer Roman shipwrecks (southâ€east France) with iron isotopes. Archaeometry, 2022, 64, 385-407. | 1.3 | 3 |
| 2 | Silicon Isotope Analyses of Soil and Plant Reference Materials: An Interâ€Comparison of Seven Laboratories. Geostandards and Geoanalytical Research, 2021, 45, 525-538. | 3.1 | 3 |
| 3 | Investigation of Fe isotope systematics for the complete sequence of natural and metallurgical processes of Ni lateritic ores: Implications for environmental source tracing. Applied Geochemistry, 2021, 127, 104930. | 3.0 | 6 |
| 4 | Mechanisms and rates of pyrite formation from hydrothermal fluid revealed by iron isotopes. Geochimica Et Cosmochimica Acta, 2021, 304, 281-304. | 3.9 | 7 |
| 5 | First-principles calculation of iron and silicon isotope fractionation between Fe-bearing minerals at magmatic temperatures: The importance of second atomic neighbors. Geochimica Et Cosmochimica Acta, 2021, 304, 101-118. | 3.9 | 17 |
| 6 | Impact of deforestation on soil iron chemistry and isotope signatures in Amazonia. Chemical Geology, 2021, 577, 120048. | 3.3 | 5 |
| 7 | Nickel isotope fractionation during metal-silicate differentiation of planetesimals: Experimental petrology and ab initio calculations. Geochimica Et Cosmochimica Acta, 2020, 269, 238-256. | 3.9 | 15 |
| 8 | Control of seasonal and inter-annual rainfall distribution on the Strontium-Neodymium isotopic compositions of suspended particulate matter and implications for tracing ENSO events in the Pacific coast (Tumbes basin, Peru). Global and Planetary Change, 2020, 185, 103080. | 3.5 | 5 |
| 9 | Stable Zn isotopes reveal the uptake and toxicity of zinc oxide engineered nanomaterials inPhragmites australis. Environmental Science: Nano, 2020, 7, 1927-1941. | 4.3 | 8 |
| 10 | A silicon memory of subduction. Nature Geoscience, 2019, 12, 682-683. | 12.9 | 4 |
| 11 | Iron Isotope Fractionation during Bio- and Photodegradation of Organoferric Colloids in Boreal Humic Waters. Environmental Science & Technology, 2019, 53, 11183-11194. | 10.0 | 15 |
| 12 | A reassessment of the iron isotope composition of the Moon and its implications for the accretion and differentiation of terrestrial planets. Geochimica Et Cosmochimica Acta, 2019, 267, 257-274. | 3.9 | 17 |
| 13 | Processes controlling silicon isotopic fractionation in a forested tropical watershed: Mule Hole Critical Zone Observatory (Southern India). Geochimica Et Cosmochimica Acta, 2018, 228, 301-319. | 3.9 | 22 |
| 14 | The giant monazite crystals from Manangotry (Madagascar). Chemical Geology, 2018, 484, 36-50. | 3.3 | 17 |
| 15 | Potential use of Fe isotopes for ancient non-ferrous metals tracing through the example of a lead-silver production site (Imiter mine, Anti-Atlas, Morocco). Journal of Archaeological Science, 2018, 98, 22-33. | 2.4 | 6 |
| 16 | Iron isotopes reveal distinct dissolved iron sources and pathways in the intermediate versus deep Southern Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 858-863. | 7.1 | 57 |
| 17 | Silicon Isotope Geochemistry. Reviews in Mineralogy and Geochemistry, 2017, 82, 289-344. | 4.8 | 54 |
| 18 | Femtosecond laser ablation inductively coupled plasma source mass spectrometry for elemental and isotopic analysis: are ultrafast lasers worthwhile?. Journal of Analytical Atomic Spectrometry, 2017, 32, 1075-1091. | 3.0 | 56 |

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|---|---|---|---|
| 19 | Trace elements and isotope geochemistry (C, O, Fe, Cr) of the CauÃª iron formation, QuadrilÃ¡tero FerrÃífero, Brazil: Evidence for widespread microbial dissimilatory iron reduction at the Archean/Paleoproterozoic transition. Precambrian Research, 2017, 298, 39-55. | 2.7 | 30 |
| 20 | Iron isotope fingerprints of redox and biogeochemical cycling in the soil-water-rice plant system of a paddy field. Science of the Total Environment, 2017, 574, 1622-1632. | 8.0 | 38 |
| 21 | 8 Silicon Isotope Geochemistry. , 2017, , 289-344. | | 0 |
| 22 | On the iron isotope composition of Mars and volatile depletion in the terrestrial planets. Earth and Planetary Science Letters, 2016, 449, 360-371. | 4.4 | 39 |
| 23 | Iron isotopes as a potential tool for ancient iron metals tracing. Journal of Archaeological Science, 2016, 76, 9-20. | 2.4 | 27 |
| 24 | Effects of different water storage procedures on the dissolved Fe concentration and isotopic composition of chemically contrasted waters from the Amazon River Basin. Rapid Communications in Mass Spectrometry, 2015, 29, 2102-2108. | 1.5 | 5 |
| 25 | Insights into iron sources and pathways in the Amazon River provided by isotopic and spectroscopic studies. Geochimica Et Cosmochimica Acta, 2015, 150, 142-159. | 3.9 | 28 |
| 26 | Iron isotope fractionation during Fe(II) and Fe(III) adsorption on cyanobacteria. Chemical Geology, 2015, 400, 24-33. | 3.3 | 38 |
| 27 | An Earthâ€“Moon silicon isotope model to track silicic magma origins. Geochimica Et Cosmochimica Acta, 2015, 167, 301-312. | 3.9 | 31 |
| 28 | Planetary and meteoritic Mg/Si and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>Î´</mml:mi></mml:mrow><mml:mrow><mml:mn>30</mml:mn></mml:mrow></mml:msup><mml:mrow><mml:mi mathvariant="normal">Si</mml:mi></mml:mrow></mml:math> variations inherited from solar nebula chemistry. Earth and Planetary Science Letters, 2015, 427, 236-248. | 4.4 | 116 |
| 29 | Hydrothermally-induced changes in mineralogy and magnetic properties of oxidized A-type granites. Lithos, 2015, 212-215, 145-157. | 1.4 | 22 |
| 30 | Iron Isotopes. , 2015, , 1264-1268. | | 1 |
| 31 | The isotopic fingerprint of Fe cycling in an equatorial soilâ€“plantâ€“water system: The Nsimi watershed, South Cameroon. Chemical Geology, 2014, 385, 104-116. | 3.3 | 27 |
| 32 | Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480. | 12.6 | 508 |
| 33 | Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734. | 12.6 | 246 |
| 34 | Iron isotope composition of the bulk waters and sediments from the Amazon River Basin. Chemical Geology, 2014, 377, 1-11. | 3.3 | 45 |
| 35 | Contrasting iron isotopic compositions in river suspended particulate matter: the Negro and the Amazon annual river cycles. Earth and Planetary Science Letters, 2014, 394, 168-178. | 4.4 | 27 |
| 36 | Iron sources and dissolvedâ€particulate interactions in the seawater of the Western Equatorial Pacific, iron isotope perspectives. Global Biogeochemical Cycles, 2014, 28, 1044-1065. | 4.9 | 66 |

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|---|---|---|---|
| 37 | Iron Isotopes. , 2014, , 1-6. | | 0 |
| 38 | On the iron isotope heterogeneity of lithospheric mantle xenoliths: implications for mantle metasomatism, the origin of basalts and the iron isotope composition of the Earth. Contributions To Mineralogy and Petrology, 2013, 165, 1243-1258. | 3.1 | 75 |
| 39 | Iron isotope composition of the suspended matter along depth and lateral profiles in the Amazon River and its tributaries. Journal of South American Earth Sciences, 2013, 44, 35-44. | 1.4 | 21 |
| 40 | Silicon isotope variations in the inner solar system: Implications for planetary formation, differentiation and composition. Geochimica Et Cosmochimica Acta, 2013, 121, 67-83. | 3.9 | 80 |
| 41 | Extreme iron isotope fractionation between colloids and particles of boreal and temperate organic-rich waters. Geochimica Et Cosmochimica Acta, 2013, 101, 96-111. | 3.9 | 99 |
| 42 | Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072. | 12.6 | 326 |
| 43 | The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463. | 12.6 | 134 |
| 44 | Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670. | 12.6 | 215 |
| 45 | In situ characterization of infra red femtosecond laser ablation in geological samples. Part B: the laser induced particles. Journal of Analytical Atomic Spectrometry, 2012, 27, 108-119. | 3.0 | 31 |
| 46 | In situ characterization of infrared femtosecond laser ablation in geological samples. Part A: the laser induced damage. Journal of Analytical Atomic Spectrometry, 2012, 27, 99-107. | 3.0 | 21 |
| 47 | The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Body Unit and Combined System Tests. Space Science Reviews, 2012, 170, 167-227. | 8.1 | 429 |
| 48 | The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. Space Science Reviews, 2012, 170, 95-166. | 8.1 | 372 |
| 49 | Comment on â€œNew data on equilibrium iron isotope fractionation among sulfides: Constraints on mechanisms of sulfide formation in hydrothermal and igneous systemsâ€•by V.B. Polyakov and D.M. Soultanov. Geochimica Et Cosmochimica Acta, 2012, 87, 356-359. | 3.9 | 21 |
| 50 | Iron and sulphur isotopes from the CarajÃ¡s mining province (ParÃ¡, Brazil): Implications for the oxidation of the ocean and the atmosphere across the Archaeanâ€“Proterozoic transition. Chemical Geology, 2011, 289, 124-139. | 3.3 | 53 |
| 51 | First experimental determination of iron isotope fractionation between hematite and aqueous solution at hydrothermal conditions. Geochimica Et Cosmochimica Acta, 2011, 75, 6629-6654. | 3.9 | 47 |
| 52 | Fe isotope and trace element geochemistry of the Neoproterozoic syn-glacial Rapitan iron formation. Earth and Planetary Science Letters, 2011, 309, 100-112. | 4.4 | 124 |
| 53 | Precise Determination of Silicon Isotopes in Silicate Rock Reference Materials by MCâ€ICPâ€MS. Geostandards and Geoanalytical Research, 2011, 35, 89-99. | 3.1 | 77 |
| 54 | Study of near infra red femtosecond laser induced particles using transmission electron microscopy and low pressure impaction: Implications for laser ablationâ€“inductively coupled plasma-mass spectrometry analysis of natural monazite. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 671-680. | 2.9 | 13 |

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| 55 | High-Precision Determination of the Isotopic Composition of Dissolved Iron in Iron Depleted Seawater by Double Spike Multicollector-ICPMS. Analytical Chemistry, 2010, 82, 7103-7111. | 6.5 | 30 |
| 56 | Dominance of mechanical over thermally induced damage during femtosecond laser ablation of monazite. European Journal of Mineralogy, 2010, 22, 235-244. | 1.3 | 22 |
| 57 | Near Infra Red femtosecond Laser Ablation: the influence of energy and pulse width on the LA-ICP-MS analysis of monazite. Journal of Analytical Atomic Spectrometry, 2010, 25, 681. | 3.0 | 27 |
| 58 | Effect of hot desert weathering on the bulkâ€rock iron isotope composition of â€˜L6 and H5 ordinary chondrites. Meteoritics and Planetary Science, 2010, 45, 195-209. | 1.6 | 25 |
| 59 | No iron isotope fractionation between molten alloys and silicate melt to 2000ÂÂ°C and 7.7ÂGPa: Experimental evidence and implications for planetary differentiation and accretion. Earth and Planetary Science Letters, 2009, 278, 376-385. | 4.4 | 79 |
| 60 | Trace element partitioning between carbonatitic melts and mantle transition zone minerals: Implications for the source of carbonatites. Geochimica Et Cosmochimica Acta, 2009, 73, 239-255. | 3.9 | 54 |
| 61 | Iron isotope fractionation between pyrite (FeS2), hematite (Fe2O3) and siderite (FeCO3): A first-principles density functional theory study. Geochimica Et Cosmochimica Acta, 2009, 73, 6565-6578. | 3.9 | 173 |
| 62 | Probes of the Ancient and the Inaccessible. Science, 2009, 323, 882-883. | 12.6 | 7 |
| 63 | Laboratory experiments on the weathering of iron meteorites and carbonaceous chondrites by ironâ€oxidizing bacteria. Meteoritics and Planetary Science, 2009, 44, 233-247. | 1.6 | 35 |
| 64 | Limited iron isotope variations in recent lateritic soils from Nsimi, Cameroon: Implications for the global Fe geochemical cycle. Chemical Geology, 2008, 253, 54-63. | 3.3 | 61 |
| 65 | Measurement of the isotopic composition of dissolved iron in the open ocean. Geophysical Research Letters, 2008, 35, . | 4.0 | 70 |
| 66 | Evaluation of infrared femtosecond laser ablation for the analysis of geomaterials by ICP-MS. Journal of Analytical Atomic Spectrometry, 2008, 23, 702. | 3.0 | 46 |
| 67 | Does planetary differentiation really fractionate iron isotopes?. Earth and Planetary Science Letters, 2007, 256, 484-492. | 4.4 | 34 |
| 68 | Nyctemeral variations of magnesium intake in the calcitic layer of a Chilean mollusk shell (Concholepas concholepas, Gastropoda). Geochimica Et Cosmochimica Acta, 2007, 71, 5369-5383. | 3.9 | 32 |
| 69 | On the iron isotope homogeneity level of the continental crust. Chemical Geology, 2006, 235, 195-200. | 3.3 | 90 |
| 70 | Heavy iron isotope composition of granites determined by high resolution MC-ICP-MS. Chemical Geology, 2005, 222, 132-147. | 3.3 | 281 |
| 71 | Significance of iron isotope mineral fractionation in pallasites and iron meteorites for the coreâ€“mantle differentiation of terrestrial planets. Earth and Planetary Science Letters, 2005, 234, 151-164. | 4.4 | 97 |
| 72 | Experimental determination of synthetic NdPO4 monazite end-member solubility in water from 21Â°C to 300Â°C: implications for rare earth element mobility in crustal fluids. Geochimica Et Cosmochimica Acta, 2004, 68, 2207-2221. | 3.9 | 130 |

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|---|---|---|---|
| 73 | Iron isotope differences between Earth, Moon, Mars and Vesta as possible records of contrasted accretion mechanisms. Earth and Planetary Science Letters, 2004, 223, 253-266. | 4.4 | 271 |
| 74 | Comparison of Ultraviolet Femtosecond and Nanosecond Laser Ablation Inductively Coupled Plasma Mass Spectrometry Analysis in Glass, Monazite, and Zircon. Analytical Chemistry, 2003, 75, 6184-6190. | 6.5 | 144 |
| 75 | Carbonâ€“oxygen isotope and trace element constraints on how fluids percolate faulted limestones from the San Andreas Fault system: partitioning of fluid sources and pathways. Chemical Geology, 2002, 190, 231-250. | 3.3 | 51 |
| 76 | The current state and future of accessory mineral research. Chemical Geology, 2002, 191, 3-24. | 3.3 | 82 |
| 77 | An experimental study of the dissolution stoichiometry and rates of a natural monazite as a function of temperature from 50 to 230 Â°C and pH from 1.5 to 10. Chemical Geology, 2002, 191, 73-87. | 3.3 | 157 |
| 78 | In situ investigations of allanite hydrothermal alteration: examples from calc-alkaline and anorogenic granites of Corsica (southeast France). Contributions To Mineralogy and Petrology, 2002, 142, 485-500. | 3.1 | 72 |
| 79 | Secondary fabrics revealed by remanence anisotropy: methodological study and examples from plutonic rocks. Geophysical Journal International, 2001, 147, 310-318. | 2.4 | 38 |
| 80 | Electron microprobe and LA-ICP-MS study of monazite hydrothermal alteration:. Geochimica Et Cosmochimica Acta, 2000, 64, 3283-3297. | 3.9 | 208 |
| 81 | Direct isotope ratio measurement of ultra-trace lead in waters by double focusing inductively coupled plasma mass spectrometry with an ultrasonic nebuliser and a desolvation unit. Journal of Analytical Atomic Spectrometry, 1999, 14, 1573-1577. | 3.0 | 20 |
| 82 | Earthquake-related elemental and isotopic lead anomaly in a springwater. Earth and Planetary Science Letters, 1999, 169, 269-276. | 4.4 | 24 |
| 83 | Extreme Nd isotope homogeneity in a large rhyolitic province: the EstÃ©rel massif, southeast France. Bulletin of Volcanology, 1998, 60, 213-223. | 3.0 | 12 |
| 84 | Importance of late-magmatic and hydrothermal fluids on the Smâ€“Nd isotope mineral systematics of hypersolvus granites. Chemical Geology, 1998, 146, 187-203. | 3.3 | 45 |
| 85 | Springwater Geochemical Response to a Seismic Event. Mineralogical Magazine, 1998, 62A, 1192-1193. | 1.4 | 1 |
| 86 | Springwater chloride ion anomaly prior to a ML = 5.2 Pyrenean earthquake. Earth and Planetary Science Letters, 1997, 149, 113-119. | 4.4 | 78 |
| 87 | Contrasted monazite hydrothermal alteration mechanisms and their geochemical implications. Earth and Planetary Science Letters, 1996, 145, 79-96. | 4.4 | 191 |
| 88 | Hydrothermal remobilization of rare earth elements and its effect on Nd isotopes in rhyolite and granite. Earth and Planetary Science Letters, 1995, 130, 1-11. | 4.4 | 52 |
| 89 | The Relationship between Petrology and Nd Isotopes as Evidence for Contrasting Anorogenic Granite Genesis: Example of the Corsican Province (SE France). Journal of Petrology, 1995, 36, 1251-1274. | 2.8 | 102 |
| 90 | Concomitant separation of strontium and samarium-neodymium for isotopic analysis in silicate samples, based on specific extraction chromatography. Analytica Chimica Acta, 1994, 298, 209-217. | 5.4 | 533 |

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| 91 | The size-isotopic evolution connection among layered mafic intrusions: Clues from a Sr-Nd isotopic study of a small complex. Journal of Geophysical Research, 1994, 99, 9441-9451. | 3.3 | 10 |
| 92 | Aluminous subsolvus anorogenic granite genesis in the light of Nd isotopic heterogeneity. Chemical Geology, 1994, 112, 199-219. | 3.3 | 50 |
| 93 | ASSESSMENT OF A SIMPLE METHOD FOR THE DETERMINATION OF NB AND TA AT THE SUB-Î¼G/G LEVEL IN SILICATE ROCKS BY ICP-MS. Geostandards and Geoanalytical Research, 1993, 17, 209-215. | 3.1 | 15 |