

Ludovic Ferrière

List of Publications by Year in descending order

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79
papers

1,571
citations

361413

20
h-index

345221

36
g-index

85
all docs

85
docs citations

85
times ranked

1363
citing authors

#	ARTICLE	IF	CITATIONS
1	The formation of peak rings in large impact craters. <i>Science</i> , 2016, 354, 878-882.	12.6	181
2	Rapid recovery of life at ground zero of the end-Cretaceous mass extinction. <i>Nature</i> , 2018, 558, 288-291.	27.8	123
3	Systematic study of universal ϵ stage measurements of planar deformation features in shocked quartz: Implications for statistical significance and representation of results. <i>Meteoritics and Planetary Science</i> , 2009, 44, 925-940.	1.6	94
4	Probing the hydrothermal system of the Chicxulub impact crater. <i>Science Advances</i> , 2020, 6, eaaz3053.	10.3	69
5	Extraordinary rocks from the peak ring of the Chicxulub impact crater: P-wave velocity, density, and porosity measurements from IODP/ICDP Expedition 364. <i>Earth and Planetary Science Letters</i> , 2018, 495, 1-11.	4.4	65
6	Formation of CV chondrules by recycling of amoeboid olivine aggregate-like precursors. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 247, 121-141.	3.9	64
7	Characterisation of ballen quartz and cristobalite in impact breccias: new observations and constraints on ballen formation. <i>European Journal of Mineralogy</i> , 2009, 21, 203-217.	1.3	61
8	FRIGN zircon – The only terrestrial mineral diagnostic of high-pressure and high-temperature shock deformation. <i>Geology</i> , 2018, 46, 891-894.	4.4	55
9	Shock Metamorphism of Bosumtwi Impact Crater Rocks, Shock Attenuation, and Uplift Formation. <i>Science</i> , 2008, 322, 1678-1681.	12.6	49
10	Globally distributed iridium layer preserved within the Chicxulub impact structure. <i>Science Advances</i> , 2021, 7, .	10.3	47
11	Impact controversies: Impact recognition criteria and related issues. <i>Meteoritics and Planetary Science</i> , 2014, 49, 723-731.	1.6	44
12	High pressure minerals in the Châteaurenard (L6) ordinary chondrite: implications for collisions on its parent body. <i>Scientific Reports</i> , 2018, 8, 9851.	3.3	39
13	Donwilhelmsite, $[\text{CaAl}_4\text{Si}_2\text{O}_{11}]$, a new lunar high-pressure Ca-Al-silicate with relevance for subducted terrestrial sediments. <i>American Mineralogist</i> , 2020, 105, 1704-1711.	1.9	33
14	Shatter cones: (Mis)understood?. <i>Science Advances</i> , 2016, 2, e1600616.	10.3	32
15	Opaque minerals, magnetic properties, and paleomagnetism of the Tissint Martian meteorite. <i>Meteoritics and Planetary Science</i> , 2013, 48, 1919-1936.	1.6	29
16	Geochemistry, geochronology and petrogenesis of Maya Block granitoids and dykes from the Chicxulub Impact Crater, Gulf of Mexico: Implications for the assembly of Pangea. <i>Gondwana Research</i> , 2020, 82, 128-150.	6.0	26
17	No Martian soil component in shergottite meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 125, 23-33.	3.9	24
18	New shock microstructures in titanite (CaTiSiO_5) from the peak ring of the Chicxulub impact structure, Mexico. <i>Contributions To Mineralogy and Petrology</i> , 2019, 174, 1.	3.1	22

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19	Exploring the microbial biotransformation of extraterrestrial material on nanometer scale. <i>Scientific Reports</i> , 2019, 9, 18028.	3.3	21
20	Drill core LBâ€08A, Bosumtwi impact structure, Ghana: Petrographic and shock metamorphic studies of material from the central uplift. <i>Meteoritics and Planetary Science</i> , 2007, 42, 611-633.	1.6	20
21	ANIE: A mathematical algorithm for automated indexing of planar deformation features in quartz grains. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1418-1424.	1.6	20
22	Cosmogenic radionuclides and mineralogical properties of the Chelyabinsk (LL5) meteorite: What do we learn about the meteoroid?. <i>Meteoritics and Planetary Science</i> , 2015, 50, 273-286.	1.6	20
23	Shocked titanite records Chicxulub hydrothermal alteration and impact age. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 281, 12-30.	3.9	20
24	The KeurusselkÃ impact structure, Finlandâ€Impact origin confirmed by characterization of planar deformation features in quartz grains. <i>Meteoritics and Planetary Science</i> , 2010, 45, 434-446.	1.6	19
25	The newly confirmed Luizi impact structure, Democratic Republic of Congoâ€Insights into central uplift formation and post-impact erosion. <i>Geology</i> , 2011, 39, 851-854.	4.4	19
26	Estimating average shock pressures recorded by impactite samples based on universalÃstage investigations of planar deformation features in quartzâ€Sources of error and recommendations. <i>Meteoritics and Planetary Science</i> , 2018, 53, 110-130.	1.6	19
27	Petrography, geochemistry, and alteration of country rocks from the Bosumtwi impact structure, Ghana. <i>Meteoritics and Planetary Science</i> , 2007, 42, 513-540.	1.6	17
28	Ballen quartz and cristobalite in impactites: New investigations. , 2010, , .		17
29	Impact origin for the Hummeln structure (Sweden) and its link to the Ordovician disruption of the L chondrite parent body. <i>Geology</i> , 2015, 43, 279-282.	4.4	17
30	The role of sulfides in the fractionation of highly siderophile and chalcophile elements during the formation of martian shergottite meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 210, 1-24.	3.9	15
31	Formation of the crater suevite sequence from the Chicxulub peak ring: A petrographic, geochemical, and sedimentological characterization. <i>Bulletin of the Geological Society of America</i> , 2022, 134, 895-927.	3.3	15
32	Shock impedance amplified impact deformation of zircon in granitic rocks from the Chicxulub impact crater. <i>Earth and Planetary Science Letters</i> , 2021, 575, 117201.	4.4	15
33	Combining shock barometry with numerical modeling: Insights into complex crater formationâ€The example of the Siljan impact structure (Sweden). <i>Meteoritics and Planetary Science</i> , 2017, 52, 2521-2549.	1.6	13
34	Characterization of shocked quartz grains from Chicxulub peak ring granites and shock pressure estimates. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2206-2223.	1.6	12
35	Libyan Desert Glass area in western Egypt: Shocked quartz in bedrock points to a possible deeply eroded impact structure in the region. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2398-2408.	1.6	10
36	Shocked quartz in polymict impact breccia from the Upper Cretaceous Yallalie impact structure in Western Australia. <i>Meteoritics and Planetary Science</i> , 2019, 54, 621-637.	1.6	10

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37	Definition and use of functional analogues in planetary exploration. <i>Planetary and Space Science</i> , 2021, 197, 105162.	1.7	10
38	New insights into the formation and emplacement of impact melt rocks within the Chicxulub impact structure, following the 2016 IODP-ICDP Expedition 364. <i>Bulletin of the Geological Society of America</i> , 2022, 134, 293-315.	3.3	10
39	Revisiting the Rochechouart impact structure, France. <i>Meteoritics and Planetary Science</i> , 2014, 49, 2152-2168.	1.6	9
40	The history of the Tissint meteorite, from its crystallization on Mars to its exposure in space: New geochemical, isotopic, and cosmogenic nuclide data. <i>Meteoritics and Planetary Science</i> , 2020, 55, 294-311.	1.6	9
41	Single crystal Uâ€Pb zircon age and Srâ€Nd isotopic composition of impactites from the Bosumtwi impact structure, Ghana: Comparison with country rocks and Ivory Coast tektites. <i>Chemical Geology</i> , 2010, 275, 254-261.	3.3	8
42	Geophysical and magnetoâ€structural study of the MaÃ¢dna structure (Talemzane, Algeria): Insights on its age and origin. <i>Meteoritics and Planetary Science</i> , 2016, 51, 2249-2273.	1.6	8
43	WIP: A Webâ€based program for indexing planar features in quartz grains and its usage. <i>Meteoritics and Planetary Science</i> , 2016, 51, 647-662.	1.6	8
44	An Early Jurassic age for the Puchezhâ€Katunki impact structure (Russia) based on ⁴⁰ Ar/ ³⁹ Ar data and palynology. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1764-1780.	1.6	8
45	Preferred orientation distribution of shockâ€induced planar microstructures in quartz and feldspar. <i>Meteoritics and Planetary Science</i> , 2020, 55, 1082-1092.	1.6	8
46	Drill core LBâ€08A, Bosumtwi impact structure, Ghana: Geochemistry of fallback breccia and basement samples from the central uplift. <i>Meteoritics and Planetary Science</i> , 2007, 42, 689-708.	1.6	7
47	Petrographic and shock metamorphic studies of the impact breccia section (1397â€1551 m depth) of the Eyreville drill core, Chesapeake Bay impact structure, USA. , 2009, , .		7
48	The variability of ruthenium in chromite from chassignite and olivineâ€phyric shergottite meteorites: New insights into the behavior of <sc>PGE</sc> and sulfur in Martian magmatic systems. <i>Meteoritics and Planetary Science</i> , 2017, 52, 333-350.	1.6	7
49	Origin of micrometer-sized impact diamonds in ureilites by catalytic growth involving Fe-Ni-silicide: The example of Kenna meteorite. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 309, 286-298.	3.9	7
50	Expedition 364 summary. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	7
51	Site M0077: Upper Peak Ring. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	7
52	Search for a meteoritic component within the impact melt rocks of the Chicxulub impact structure peak ring, Mexico. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 323, 74-101.	3.9	7
53	Geochemistry of basement rocks and impact breccias from the central uplift of the Bosumtwi crater, Ghanaâ€Comparison of proximal and distal impactites. , 2010, , .		6
54	Shock metamorphism in plagioclase and selective amorphization. <i>Meteoritics and Planetary Science</i> , 2020, 55, 1103-1115.	1.6	6

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55	Hydrogen emission from meteors and meteorites: mapping traces of H ₂ O molecules and organic compounds in small Solar system bodies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 513, 3982-3992.	4.4	6
56	Comment on: "Direct evidence of ancient shock metamorphism at the site of the 1908 Tunguska event", by P. Vannucchi et al. [<i>Earth Planet. Sci. Lett.</i> 409 (2015) 168-174]. <i>Earth and Planetary Science Letters</i> , 2015, 419, 222-223.	4.4	5
57	Ocean resurge-induced impact melt dynamics on the peak-ring of the Chicxulub impact structure, Mexico. <i>International Journal of Earth Sciences</i> , 2021, 110, 2619-2636.	1.8	5
58	Microtextures in the Chelyabinsk impact breccia reveal the history of Phosphorus-Olivine Assemblages in chondrites. <i>Meteoritics and Planetary Science</i> , 2021, 56, 742-766.	1.6	5
59	Chicxulub impact structure, IODP Expedition 364 drill core: Geochemistry of the granite basement. <i>Meteoritics and Planetary Science</i> , 2021, 56, 1243-1273.	1.6	5
60	Geochemistry of the impact breccia section (1397-1551 m depth) of the Eyreville drill core, Chesapeake Bay impact structure, USA. , 2009, , .		4
61	High frame rate emission spectroscopy for ablation tests in plasma wind tunnel. <i>Review of Scientific Instruments</i> , 2021, 92, 033101.	1.3	4
62	Shocked quartz in distal ejecta from the Ries impact event (Germany) found at ~180 km distance, near Bernhardzell, eastern Switzerland. <i>Scientific Reports</i> , 2021, 11, 7438.	3.3	3
63	Lunar meteorite Northwest Africa 11962: A regolith breccia containing records of titanium-rich lunar volcanism and the high alkali suite. <i>Meteoritics and Planetary Science</i> , 2021, 56, 971-991.	1.6	3
64	Resolving the age of the Puchezh-Katunki impact structure (Russia) against alteration and inherited ⁴⁰ Ar* - No link with extinctions. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 301, 116-140.	3.9	3
65	Advanced EDS and ⁴⁹ Ti XRF Analysis of Earth and Planetary Materials using Spectrum Imaging, Computer-Controlled SEM and an Annular SDD. <i>Microscopy and Microanalysis</i> , 2014, 20, 1716-1717.	0.4	2
66	The fourth Arab Impact Cratering and Astrogeology Conference (<sc>AICAC IV</sc>), April 9-12, 2017, Algiers (Algeria). <i>Meteoritics and Planetary Science</i> , 2017, 52, 2067-2071.	1.6	2
67	Best practices for the use of meteorite names in publications. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1397-1400.	1.6	2
68	Analyses of radionuclides in the Oued Awlitis 001 and Galb Inal lunar meteorites by HPGe gamma-ray spectrometry. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2020, 324, 349-357.	1.5	2
69	Site M0077: introduction. <i>Proceedings of the International Ocean Discovery Program</i> , 0, , .	0.0	2
70	Enigmatic tubular features in impact glass: REPLY. <i>Geology</i> , 2014, 42, e348-e348.	4.4	1
71	Search (and Discovery) of New Impact Craters on Earth. <i>Elements</i> , 2017, 13, 358-359.	0.5	1
72	Petrography and perovskite U-Pb age of the Katuba kimberlite, Kundelungu Plateau (D.R. Congo): Implications for regional tectonism and mineralisation. <i>Journal of African Earth Sciences</i> , 2019, 156, 35-43.	2.0	1

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73	The Mesoproterozoic Stac Fada Member, NW Scotland: an impact origin confirmed but refined. Journal of the Geological Society, 2021, 178, .	2.1	1
74	Unique evidence of fluid alteration in the Kakowa (L6) ordinary chondrite. Scientific Reports, 2022, 12, 5520.	3.3	1
75	Nova Colinas, Maranhão State: A newly confirmed, complex impact structure in Brazil. Meteoritics and Planetary Science, 0, , .	1.6	1
76	On the occurrence and origin of anthropogenic radionuclides found in a fragment of the Chelyabinsk (<sc>LL</sc>5) meteorite. Meteoritics and Planetary Science, 2017, 52, 1244-1250.	1.6	0
77	Scientific Comment on Klokoň et al. "Support for two subglacial impact craters in northwest Greenland from Earth gravity model EIGEN 6C4 and other data", Tectonophysics 780 (2020), 228396. Tectonophysics, 2021, 800, 228578.	2.2	0
78	Shock metamorphism in samples from the Shili impact structure (Kazakhstan) and discussion of its size and age. , 2021, , .		0
79	Shock metamorphic microstructures in quartz grains from Albian sandstones from the Tin Bider impact structure, Algeria. Meteoritics and Planetary Science, 2021, 56, 2273-2280.	1.6	0