

David Baratoux

List of Publications by Year in descending order

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Version: 2024-02-01

121
papers

7,712
citations

66343

42
h-index

51608

86
g-index

125
all docs

125
docs citations

125
times ranked

5892
citing authors

#	ARTICLE	IF	CITATIONS
1	Has the impact flux of small and large asteroids varied through time on Mars, the Earth and the Moon?. <i>Earth and Planetary Science Letters</i> , 2022, 579, 117362.	4.4	5
2	The origin of the potassium-rich annular zones at the Bosumtwi impact structure, Ghana, investigated by field study, radiometric analysis, and first cosmogenic nuclide data. <i>Meteoritics and Planetary Science</i> , 2022, 57, 702-729.	1.6	3
3	Thank You to Our 2021 Reviewers. <i>Earth and Space Science</i> , 2022, 9, .	2.6	0
4	Early crustal processes revealed by the ejection site of the oldest martian meteorite. <i>Nature Communications</i> , 2022, 13, .	12.8	11
5	Recent expansion of artisanal gold mining along the Bandama River (Côte d'Ivoire). <i>International Journal of Applied Earth Observation and Geoinformation</i> , 2022, 112, 102873.	1.9	3
6	Multi-scale spatial distribution of K, Th and U in an Archaean potassic granite: a case study from the Heerenveen batholith, Barberton Granite-Greenstone Terrain, South Africa. <i>South African Journal of Geology</i> , 2021, 124, 53-86.	1.2	5
7	Systematic survey of K, Th, and U signatures in airborne radiometric data from Australian meteorite impact structures: Possible causes of circular features and implications. , 2021, , 373-405.		2
8	The Impact of Measurement Scale on the Univariate Statistics of K, Th, and U in the Earth Crust. <i>Earth and Space Science</i> , 2021, 8, e2021EA001786.	2.6	1
9	Effects of environmental factors on the monitoring of environmental radioactivity by airborne gamma-ray spectrometry. <i>Journal of Environmental Radioactivity</i> , 2021, 237, 106695.	1.7	8
10	Evolution of the Koma Bangou Gold Panning Site (Niger) From 1984 to 2020 Using Landsat Imagery. <i>Earth and Space Science</i> , 2021, 8, .	2.6	6
11	The Tharsis mantle source of depleted shergottites revealed by 90 million impact craters. <i>Nature Communications</i> , 2021, 12, 6352.	12.8	31
12	Impact cratering rate consistency test from ages of layered ejecta on Mars. <i>Planetary and Space Science</i> , 2020, 180, 104755.	1.7	16
13	A thick crustal block revealed by reconstructions of early Mars highlands. <i>Nature Geoscience</i> , 2020, 13, 105-109.	12.9	24
14	In Appreciation of Our 2019 Peer Reviewers. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006420.	3.6	0
15	The redistribution of thorium, uranium, potassium by magmatic and hydrothermal processes versus surface processes in the Saraya Batholith (Eastern Senegal): Insights from airborne radiometrics data and topographic roughness. <i>Journal of Geochemical Exploration</i> , 2020, 219, 106633.	3.2	12
16	Mapping Artisanal and Small-Scale Gold Mining in Senegal Using Sentinel 2 Data. <i>GeoHealth</i> , 2020, 4, e2020GH000310.	4.0	11
17	Size and Shape Constraints of (486958) Arrokoth from Stellar Occultations. <i>Astronomical Journal</i> , 2020, 159, 130.	4.7	25
18	FRIPON: a worldwide network to track incoming meteoroids. <i>Astronomy and Astrophysics</i> , 2020, 644, A53.	5.1	58

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19	Meteor Detection from the Fireball Moroccan Network: First Orbital Results and Links to Parent Bodies. <i>Astronomy Reports</i> , 2019, 63, 619-632.	0.9	0
20	Geological and geophysical studies of the Agoudal impact structure (Central High Atlas, Morocco): New evidence for crater size and age. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2483-2509.	1.6	3
21	Secular cooling and crystallization of partially molten Archaean continental crust over 1 Ga. <i>Comptes Rendus - Geoscience</i> , 2019, 351, 562-573.	1.2	21
22	Thank You to Our 2018 Peer Reviewers. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 867-870.	3.6	0
23	Bosumtwi impact structure, Ghana: Evidence for fluidized emplacement of the ejecta. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2541-2556.	1.6	7
24	Calibration of fish-eye lens and error estimation on fireball trajectories: application to the FRIPON network. <i>Astronomy and Astrophysics</i> , 2019, 627, A78.	5.1	17
25	New U ²³⁸ -Pb Baddeleyite Ages of Mafic Dyke Swarms of the West African and Amazonian Cratons: Implication for Their Configuration in Supercontinents Through Time. <i>Springer Geology</i> , 2019, , 263-314.	0.3	18
26	The revised tectonic history of Tharsis. <i>Earth and Planetary Science Letters</i> , 2018, 488, 126-133.	4.4	43
27	New models for geoscience higher education in West Africa. <i>Journal of African Earth Sciences</i> , 2018, 148, 99-108.	2.0	5
28	Development and Evolution of the Size of Polygonal Fracture Systems during Fluid-Solid Separation in Clay-Rich Deposits. <i>Journal of Earth Science (Wuhan, China)</i> , 2018, 29, 1319-1334.	3.2	4
29	Multi-scale distribution of Potassium, Thorium and Uranium in Paleoproterozoic granites from eastern Senegal. <i>Journal of African Earth Sciences</i> , 2018, 148, 30-51.	2.0	11
30	Development in astronomy and space science in Africa. <i>Nature Astronomy</i> , 2018, 2, 507-510.	10.1	11
31	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
32	The variability of ruthenium in chromite from chassignite and olivine ϕ phyric shergottite meteorites: New insights into the behavior of <scp>PGE</scp> and sulfur in Martian magmatic systems. <i>Meteoritics and Planetary Science</i> , 2017, 52, 333-350.	1.6	7
33	Numerical modelling of erosion and assimilation of sulfur-rich substrate by martian lava flows: Implications for the genesis of massive sulfide mineralization on Mars. <i>Icarus</i> , 2017, 296, 257-274.	2.5	11
34	The fourth Arab Impact Cratering and Astrogeology Conference (<scp>AICAC IV</scp>), April 9 \hat{a} 12, 2017, Algiers (Algeria). <i>Meteoritics and Planetary Science</i> , 2017, 52, 2067-2071.	1.6	2
35	Electric potential anomaly induced by humid air convection within Piton de La Fournaise volcano, La R�union Island. <i>Geothermics</i> , 2017, 65, 81-98.	3.4	7
36	The State of Planetary and Space Sciences in Africa. <i>Eos</i> , 2017, , .	0.1	4

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37	Africa Initiative for Planetary and Space Sciences. <i>Eos</i> , 2017, , .	0.1	6
38	The Agoudal (High Atlas Mountains, Morocco) shatter cone conundrum: A recent meteorite fall onto the remnant of an impact site. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1497-1518.	1.6	13
39	Late Tharsis formation and implications for early Mars. <i>Nature</i> , 2016, 531, 344-347.	27.8	80
40	Morphometric analysis and classification of the three-dimensional geometry of shatter cones. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1460-1476.	1.6	5
41	The current state of knowledge about shatter cones: Introduction to the special issue. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1389-1434.	1.6	44
42	Mars: a small terrestrial planet. <i>Astronomy and Astrophysics Review</i> , 2016, 24, 1.	25.5	22
43	A review of volatiles in the Martian interior. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1935-1958.	1.6	43
44	Twenty five years of planetary science: Discoveries and new questions. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1829-1830.	3.6	0
45	The 2015 peer reviewer appreciation. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 108-110.	3.6	2
46	First Lunar Flashes Observed from Morocco (ILIAD Network): Implications for Lunar Seismology. <i>Earth, Moon and Planets</i> , 2015, 115, 1-21.	0.6	13
47	Quantifying geological processes on Mars—Results of the high resolution stereo camera (HRSC) on Mars express. <i>Planetary and Space Science</i> , 2015, 112, 53-97.	1.7	63
48	Magmatic controls on the genesis of Ni-Cu±(PGE) sulphide mineralisation on Mars. <i>Ore Geology Reviews</i> , 2015, 65, 400-412.	2.7	14
49	Appreciation of Peer Reviewers for 2014. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 359-361.	3.6	0
50	Hydrothermal alteration in basalts from Vargeão impact structure, south Brazil, and implications for recognition of impact-induced hydrothermalism on Mars. <i>Icarus</i> , 2015, 252, 347-365.	2.5	16
51	Prospecting for possible impact structures in Morocco. <i>Journal of African Earth Sciences</i> , 2015, 112, 339-352.	2.0	5
52	Properties of craters on the Achaia region of Asteroid (21) Lutetia. <i>Icarus</i> , 2015, 247, 137-149.	2.5	2
53	Shatter Cone. , 2015, , 1918-1920.		0
54	Instrumental methods for professional and amateur collaborations in planetary astronomy. <i>Experimental Astronomy</i> , 2014, 38, 91-191.	3.7	47

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55	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1242777.	12.6	687
56	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1243480.	12.6	508
57	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1244734.	12.6	246
58	Simulation of the capabilities of an orbiter for monitoring the entry of interplanetary matter into the terrestrial atmosphere. <i>Planetary and Space Science</i> , 2014, 103, 238-249.	1.7	36
59	Viscous flow behavior of tholeiitic and alkaline Fe-rich martian basalts. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 124, 348-365.	3.9	48
60	Petrological constraints on the density of the Martian crust. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1707-1727.	3.6	91
61	Igneous mineralogy at Bradbury Rise: The first ChemCam campaign at Gale crater. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 30-46.	3.6	114
62	Shatter Cone. , 2014, , 1-4.		1
63	Lava flow rheology: A comparison of morphological and petrological methods. <i>Earth and Planetary Science Letters</i> , 2013, 384, 109-120.	4.4	79
64	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. <i>Science</i> , 2013, 341, 1238932.	12.6	327
65	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. <i>Science</i> , 2013, 341, 1239505.	12.6	280
66	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. <i>Science</i> , 2013, 341, 263-266.	12.6	327
67	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. <i>Science</i> , 2013, 341, 1238937.	12.6	367
68	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. <i>Science</i> , 2013, 341, 260-263.	12.6	241
69	Long-Term Evolution of the Martian Crust-Mantle System. <i>Space Science Reviews</i> , 2013, 174, 49-111.	8.1	124
70	Magmatic intrusions and deglaciation at mid-latitude in the northern plains of Mars. <i>Icarus</i> , 2013, 225, 602-613.	2.5	14
71	In situ U/Pb dating of impact-produced zircons from the Vargeão Dome (Southern Brazil). <i>Meteoritics and Planetary Science</i> , 2013, 48, 420-431.	1.6	15
72	Thermal history of the H-chondrite parent body: Implications for metamorphic grade and accretionary time-scales. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 119, 302-321.	3.9	51

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73	Martian Fluvial Conglomerates at Gale Crater. <i>Science</i> , 2013, 340, 1068-1072.	12.6	326
74	The Petrochemistry of Jake_M: A Martian Mugearite. <i>Science</i> , 2013, 341, 1239463.	12.6	134
75	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. <i>Science</i> , 2013, 341, 1238670.	12.6	215
76	The petrological expression of early Mars volcanism. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 59-64.	3.6	76
77	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. <i>Space Science Reviews</i> , 2012, 170, 95-166.	8.1	372
78	Magnetic fabric of Araguainha complex impact structure (Central Brazil): Implications for deformation mechanisms and central uplift formation. <i>Earth and Planetary Science Letters</i> , 2012, 331-332, 347-359.	4.4	13
79	Thermal anomalies on pit craters and sinuous rilles of Arsia Mons: Possible signatures of atmospheric gas circulation in the volcano. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	8
80	Farside explorer: unique science from a mission to the farside of the moon. <i>Experimental Astronomy</i> , 2012, 33, 529-585.	3.7	52
81	Power and duration of impact flashes on the Moon: Implication for the cause of radiation. <i>Icarus</i> , 2012, 218, 115-124.	2.5	36
82	The Second Arab Impact Cratering and Astrogeology Conference, Casablanca, 14-20 November 2011 "A bridge between geoscientists and astronomers. <i>Meteoritics and Planetary Science</i> , 2012, 47, 1098-1103.	1.6	3
83	Long-Term Evolution of the Martian Crust-Mantle System. <i>Space Sciences Series of ISSI</i> , 2012, , 49-111.	0.0	4
84	The ChemCam Instrument Suite on the Mars Science Laboratory (MSL) Rover: Science Objectives and Mast Unit Description. , 2012, , 95-166.		2
85	Segregation of olivine grains in volcanic sands in Iceland and implications for Mars. <i>Earth and Planetary Science Letters</i> , 2011, 310, 233-243.	4.4	49
86	Thermal history of Mars inferred from orbital geochemistry of volcanic provinces. <i>Nature</i> , 2011, 472, 338-341.	27.8	116
87	Thermal analysis of fractures at Cerberus Fossae, Mars: Detection of air convection in the porous debris apron. <i>Icarus</i> , 2011, 214, 433-446.	2.5	10
88	An experimental study of Hapke's modeling of natural granular surface samples. <i>Icarus</i> , 2011, 215, 313-331.	2.5	74
89	A new systematic approach using the Modified Gaussian Model: Insight for the characterization of chemical composition of olivines, pyroxenes and olivine-pyroxene mixtures. <i>Icarus</i> , 2011, 213, 404-422.	2.5	63
90	Volcanic sands of Iceland -Diverse origins of aeolian sand deposits revealed at Dyngjúsandur and Lambhraun. <i>Earth Surface Processes and Landforms</i> , 2011, 36, 1789-1808.	2.5	50

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91	The formation of floor-fractured craters in Xanthe Terra. <i>Icarus</i> , 2010, 207, 248-264.	2.5	29
92	Sinuuous gullies on Mars: Frequency, distribution, and implications for flow properties. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	118
93	Mineralogy of recent volcanic plains in the Tharsis region, Mars, and implications for platy-ridged flow composition. <i>Earth and Planetary Science Letters</i> , 2010, 294, 440-450.	4.4	42
94	Gamma-ray constraints on the chemical composition of the martian surface in the Tharsis region: A signature of partial melting of the mantle?. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 185, 116-122.	2.1	17
95	Thermal infrared image analysis of a quiescent cone on Piton de la Fournaise volcano: Evidence of convective air flow within an unconsolidated soil. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 183, 228-244.	2.1	21
96	Shape, rheology and emplacement times of small martian shield volcanoes. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 185, 47-68.	2.1	33
97	The morphologies of volcanic landforms at Central Elysium Planitia: Evidence for recent and fluid lavas on Mars. <i>Icarus</i> , 2009, 200, 39-51.	2.5	59
98	Contribution of Mars Odyssey GRS at Central Elysium Planitia. <i>Icarus</i> , 2009, 200, 19-29.	2.5	28
99	The volcanic history of central Elysium Planitia: Implications for martian magmatism. <i>Icarus</i> , 2009, 204, 418-442.	2.5	157
100	The Circum-Hellas Volcanic Province, Mars: Overview. <i>Planetary and Space Science</i> , 2009, 57, 895-916.	1.7	83
101	Effects of ejecta accumulation on the crater population of asteroid 433 Eros. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	4
102	Identification of a new outflow channel on Mars in Syrtis Major Planum using HRSC/MEx data. <i>Planetary and Space Science</i> , 2008, 56, 1030-1042.	1.7	28
103	Gusev photometric variability as seen from orbit by HRSC/Mars-express. <i>Icarus</i> , 2008, 197, 403-428.	2.5	28
104	A swarm of small shield volcanoes on Syria Planum, Mars. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	32
105	Mineralogical structure of the subsurface of Syrtis Major from OMEGA observations of lobate ejecta blankets. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	31
106	Surface roughness and geological mapping at subhectometer scale from the High Resolution Stereo Camera onboard Mars Express. <i>Icarus</i> , 2007, 191, 38-51.	2.5	17
107	Martian perched craters and large ejecta volume: Evidence for episodes of deflation in the northern lowlands. <i>Meteoritics and Planetary Science</i> , 2006, 41, 1647-1658.	1.6	36
108	Orientation and distribution of recent gullies in the southern hemisphere of Mars: Observations from High Resolution Stereo Camera/Mars Express (HRSC/MEX) and Mars Orbiter Camera/Mars Global Surveyor (MOC/MGS) data. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	120

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109	The role of the wind-transported dust in slope streaks activity: Evidence from the HRSC data. <i>Icarus</i> , 2006, 183, 30-45.	2.5	56
110	An extended field of crater-shaped structures in the Gilf Kebir region, Egypt: Observations and hypotheses about their origin. <i>Journal of African Earth Sciences</i> , 2006, 46, 281-299.	2.0	32
111	Surface motion of mountain glaciers derived from satellite optical imagery. <i>Remote Sensing of Environment</i> , 2005, 95, 14-28.	11.0	195
112	Thermal properties of lobate ejecta in Syrtis Major, Mars: Implications for the mechanisms of formation. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	32
113	Recent rapid thinning of the "Mer de Glace" glacier derived from satellite optical images. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	117
114	Seventeen years of the "La Clapière" landslide evolution analysed from ortho-rectified aerial photographs. <i>Engineering Geology</i> , 2003, 68, 123-139.	6.3	98
115	Reconstructing the total shortening history of the NW Himalaya. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, .	2.5	227
116	Online Mars digital elevation model derived from profiles. <i>Eos</i> , 2003, 84, 583-583.	0.1	4
117	The formation of shatter cones by shock wave interference during impacting. <i>Earth and Planetary Science Letters</i> , 2003, 216, 43-54.	4.4	58
118	An instability mechanism in the formation of the Martian lobate craters and the implications for the rheology of ejecta. <i>Geophysical Research Letters</i> , 2002, 29, 51-1-51-4.	4.0	31
119	Evidence of liquid water in recent debris avalanche on Mars. <i>Geophysical Research Letters</i> , 2002, 29, 60-1.	4.0	14
120	High-resolution digital elevation models derived from Viking Orbiter images: Method and comparison with Mars Orbiter Laser Altimeter Data. <i>Journal of Geophysical Research</i> , 2001, 106, 32927-32941.	3.3	12
121	Nova Colinas, Maranhão State: A newly confirmed, complex impact structure in Brazil. <i>Meteoritics and Planetary Science</i> , 0, , .	1.6	1