Jean-Pierre Bibring

List of Publications by Year
in descending order

100	12,171	41627	46524
papers	citations	51 h-index	93 g-index

101	101	101	5084
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	MicrOmega/MASCOT first results. Planetary and Space Science, 2022, 210, 105393.	0.9	2
2	Planetary Terrestrial Analogues Library Project: 3. Characterization of Samples With MicrOmega. Astrobiology, 2022, , .	1.5	0
3	A new concept of acousto-optic tunable filter-based near-infrared hyperspectral imager for planetary surface exploration. Review of Scientific Instruments, 2022, 93, 044501.	0.6	0
4	Preliminary analysis of the Hayabusa2 samples returned from C-type asteroid Ryugu. Nature Astronomy, 2022, 6, 214-220.	4.2	136
5	First compositional analysis of Ryugu samples by the MicrOmega hyperspectral microscope. Nature Astronomy, 2022, 6, 221-225.	4.2	65
6	Calibration and performances of the MicrOmega instrument for the characterization of asteroid Ryugu returned samples. Review of Scientific Instruments, 2022, 93, .	0.6	5
7	Martian cloud climatology and life cycle extracted from Mars Express OMEGA spectral images. Icarus, 2021, 353, 114101.	1.1	10
8	Thermally altered subsurface material of asteroid (162173) Ryugu. Nature Astronomy, 2021, 5, 246-250.	4.2	47
9	The MASCOT lander aboard Hayabusa2: The in-situ exploration of NEA (162173) Ryugu. Planetary and Space Science, 2021, 200, 105200.	0.9	18
10	Planetary Terrestrial Analogues Library project: 2. building a laboratory facility for MicrOmega characterization. Planetary and Space Science, 2020, 193, 105087.	0.9	5
11	The process for the selection of MASCOT landing site on Ryugu: Design, execution and results. Planetary and Space Science, 2020, 194, 105086.	0.9	6
12	Raman Laser Spectrometer (RLS) calibration target design to allow onboard combined science between the RLS and MicrOmega instruments on the ExoMars rover. Journal of Raman Spectroscopy, 2020, 51, 1718-1730.	1.2	19
13	Images from the surface of asteroid Ryugu show rocks similar to carbonaceous chondrite meteorites. Science, 2019, 365, 817-820.	6.0	99
14	The surface composition of asteroid 162173 Ryugu from Hayabusa2 near-infrared spectroscopy. Science, 2019, 364, 272-275.	6.0	262
15	Hayabusa2 arrives at the carbonaceous asteroid 162173 Ryuguâ€”A spinning topâ€“shaped rubble pile. Science, 2019, 364, 268-272.	6.0	410
16	Visible to Short-Wave Infrared Spectral Analyses of Mars from Orbit Using CRISM and OMEGA. , 2019, , 453-483.		6
17	The M3 project: 2 - Global distributions of mafic mineral abundances on Mars. Icarus, 2019, 322, 31-53.	1.1	17
18	The M3 project: 1- A global hyperspectral image-cube of the martian surface. Icarus, 2019, 319, 281-292.	1.1	8

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19	Science exploration and instrumentation of the OKEANOS mission to a Jupiter Trojan asteroid using the solar power sail. Planetary and Space Science, 2018, 161, 99-106.	0.9	31
20	The on-ground calibration performances of the hyperspectral microscope MicrOmega for the Hayabusa-2 mission. Planetary and Space Science, 2018, 152, 31-44.	0.9	9
21	MASCOTâ€"The Mobile Asteroid Surface Scout Onboard the Hayabusa2 Mission. Space Science Reviews, 2017, 208, 339-374.	3.7	100
22	The Philae lander mission and science overview. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160248.	1.6	53
23	The MicrOmega Investigation Onboard ExoMars. Astrobiology, 2017, 17, 621-626.	1.5	85
24	The MicrOmega Investigation Onboard Hayabusa2. Space Science Reviews, 2017, 208, 401-412.	3.7	43
25	The Camera of the MASCOT Asteroid Lander on Board Hayabusa 2. Space Science Reviews, 2017, 208, 375-400.	3.7	46
26	The MicrOmega Investigation Onboard Hayabusa2. , 2017, , 401-412.		1
27	Candidates source regions of martian meteorites as identified by OMEGA/MEx. Icarus, 2015, 258, 366-383.	1.1	19
28	The structure of the regolith on 67P/Churyumov-Gerasimenko from ROLIS descent imaging. Science, 2015, 349, aab0232.	6.0	86
29	67P/Churyumov-Gerasimenko surface properties as derived from CIVA panoramic images. Science, 2015, 349, aab0671.	6.0	47
30	Mars surface thermal inertia and heterogeneities from OMEGA/MEX. Icarus, 2014, 233, 194-213.	1.1	23
31	Automated algorithms to identify and locate grains of specific composition for NIR hyperspectral microscopes: Application to the MicrOmega instrument onboard ExoMars. Planetary and Space Science, 2014, 99, 7-18.	0.9	5
32	Water in the Martian regolith from OMEGA/Mars Express. Journal of Geophysical Research E: Planets, 2014, 119, 1969-1989.	1.5	39
33	A systematic mapping procedure based on the Modified Gaussian Model to characterize magmatic units from olivine/pyroxenes mixtures: Application to the Syrtis Major volcanic shield on Mars. Journal of Geophysical Research E: Planets, 2013, 118, 1632-1655.	1.5	33
34	NIR reflectance hyperspectral microscopy for planetary science: Application to the MicrOmega instrument. Planetary and Space Science, 2013, 76, 42-52.	0.9	45
35	Global investigation of olivine on Mars: Insights into crust and mantle compositions. Journal of Geophysical Research E: Planets, 2013, 118, 234-262.	1.5	117
36	Compositional investigation of the proposed chlorideâ€bearing materials on Mars using nearâ€infrared orbital data from OMEGA/MEx. Journal of Geophysical Research, 2012, 117, .	3.3	35

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37	Global maps of anhydrous minerals at the surface of Mars from OMEGA/MEx. Journal of Geophysical Research, 2012, 117, .	3.3	133
38	Winter and spring evolution of northern seasonal deposits on Mars from OMEGA on Mars Express. Journal of Geophysical Research, 2011, 116, .	3.3	79
39	New near-IR observations of mesospheric CO₂and H₂O clouds on Mars. Journal of Geophysical Research, 2011, 116, .	3.3	65
40	Stratigraphy, mineralogy, and origin of layered deposits inside Terby crater, Mars. Icarus, 2011, 211, 273-304.	1.1	131
41	Annual survey of water vapor behavior from the OMEGA mapping spectrometer onboard Mars Express. Icarus, 2011, 213, 480-495.	1.1	42
42	Detection of Hydrated Silicates in Crustal Outcrops in the Northern Plains of Mars. Science, 2010, 328, 1682-1686.	6.0	134
43	Nearâ€tropical subsurface ice on Mars. Geophysical Research Letters, 2010, 37, .	1.5	79
44	ESSC-ESF Position Paperâ€"Science-Driven Scenario for Space Exploration: Report from the European Space Sciences Committee (ESSC). Astrobiology, 2009, 9, 23-41.	1.5	13
45	An iterative least squares approach to decorrelate minerals and ices contributions in hyperspectral images: Application to Cuprite (earth) and Mars. , 2009, , .		4
46	Yearly and seasonal variations of low albedo surfaces on Mars in the OMEGA/MEx dataset: Constraints on aerosols properties and dust deposits. Icarus, 2009, 200, 395-405.	1.1	39
47	Quantitative compositional analysis of martian mafic regions using the MEx/OMEGA reflectance data. Icarus, 2009, 201, 84-101.	1.1	109
48	Mapping of water frost and ice at low latitudes on Mars. Icarus, 2009, 203, 406-420.	1.1	39
49	Quantitative compositional analysis of martian mafic regions using the MEx/OMEGA reflectance data 1. Methodology, uncertainties and examples of application. Icarus, 2009, 201, 69-83.	1.1	63
50	A study of the properties of a local dust storm with Mars Express OMEGA and PFS data. Icarus, 2009, 201, 504-516.	1.1	42
51	OMEGA long wavelength channel: Data reduction during non-nominal stages. Planetary and Space Science, 2009, 57, 1032-1042.	0.9	11
52	Micromega/IR: Design and status of a near-infrared spectral microscope for in situ analysis of Mars samples. Planetary and Space Science, 2009, 57, 1068-1075.	0.9	37
53	A synthesis of Martian aqueous mineralogy after 1 Mars year of observations from the Mars Reconnaissance Orbiter. Journal of Geophysical Research, 2009, 114, .	3.3	445
54	Evidence for the origin of layered deposits in Candor Chasma, Mars, from mineral composition and hydrologic modeling. Journal of Geophysical Research, 2009, 114, .	3.3	159

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55	Compact Reconnaissance Imaging Spectrometer for Mars investigation and data set from the Mars Reconnaissance Orbiter's primary science phase. Journal of Geophysical Research, 2009, 114, .	3.3	178
56	Composition, Morphology, and Stratigraphy of Noachian Crust around the Isidis basin. Journal of Geophysical Research, 2009, 114, .	3.3	144
57	Testing evidence of recent hydration state change in sulfates on Mars. Journal of Geophysical Research, 2009, 114, .	3.3	78
58	Characterization of phyllosilicates observed in the central Mawrth Vallis region, Mars, their potential formational processes, and implications for past climate. Journal of Geophysical Research, 2009, 114, .	3.3	117
59	Rosetta Lander (â€œPhilaeâ€) Investigations. , 2009, , 1-171.		2
60	Analysis of OMEGA/Mars Express data hyperspectral data using a Multiple-Endmember Linear Spectral Unmixing Model (MELSUM): Methodology and first results. Planetary and Space Science, 2008, 56, 951-975.	0.9	88
61	Mineralogy of Terra Meridiani and western Arabia Terra from OMEGA/MEx and implications for their formation. Icarus, 2008, 195, 106-130.	1.1	85
62	Hydrated silicate minerals on Mars observed by the Mars Reconnaissance Orbiter CRISM instrument. Nature, 2008, 454, 305-309.	13.7	630
63	Dust haze in Valles Marineris observed by HRSC and OMEGA on board Mars Express. Journal of Geophysical Research, 2008, 113, .	3.3	18
64	Ferric oxides in East Candor Chasma, Valles Marineris (Mars) inferred from analysis of OMEGA/Mars Express data: Identification and geological interpretation. Journal of Geophysical Research, 2008, 113, .	3.3	40
65	Phyllosilicate Diversity and Past Aqueous Activity Revealed at Mawrth Vallis, Mars. Science, 2008, 321, 830-833.	6.0	328
66	Hydration state of the Martian surface as seen by Mars Express OMEGA: 2. H₂O content of the surface. Journal of Geophysical Research, 2007, 112, .	3.3	98
67	Phyllosilicates in the Mawrth Vallis region of Mars. Journal of Geophysical Research, 2007, 112, .	3.3	153
68	Remote sensing of surface pressure on Mars with the Mars Express/OMEGA spectrometer: 2. Meteorological maps. Journal of Geophysical Research, 2007, 112, .	3.3	31
69	Observations of the south seasonal cap of Mars during recession in 2004â€“2006 by the OMEGA visible/nearâ€infrared imaging spectrometer on board Mars Express. Journal of Geophysical Research, 2007, 112, .	3.3	128
70	Mineralogy of the Nili Fossae region with OMEGA/Mars Express data: 1. Ancient impact melt in the Isidis Basin and implications for the transition from the Noachian to Hesperian. Journal of Geophysical Research, 2007, 112, .	3.3	130
71	Hydration state of the Martian surface as seen by Mars Express OMEGA: 1. Analysis of the 3 Î¼m hydration feature. Journal of Geophysical Research, 2007, 112, .	3.3	83
72	Mineralogy of the Nili Fossae region with OMEGA/Mars Express data: 2. Aqueous alteration of the crust. Journal of Geophysical Research, 2007, 112, .	3.3	154

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73	CRISM multispectral summary products: Parameterizing mineral diversity on Mars from reflectance. Journal of Geophysical Research, 2007, 112, .	3.3	304
74	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on Mars Reconnaissance Orbiter (MRO). Journal of Geophysical Research, 2007, 112, .	3.3	796
75	Mineralogical structure of the subsurface of Syrtis Major from OMEGA observations of lobate ejecta blankets. Journal of Geophysical Research, 2007, 112, .	3.3	31
76	On the origin of perennial water ice at the south pole of Mars: A precessionâ€controlled mechanism?. Journal of Geophysical Research, 2007, 112, .	3.3	40
77	Introduction to special section: OMEGA/Mars Express Mars Surface and Atmospheric Properties. Journal of Geophysical Research, 2007, 112, .	3.3	2
78	Hyperspectral imaging of convective CO₂ ice clouds in the equatorial mesosphere of Mars. Journal of Geophysical Research, 2007, 112, .	3.3	81
79	Martian surface mineralogy from Observatoire pour la MinÃ©ralogie, l'Eau, les Glaces et l'ActivitÃ© on board the Mars Express spacecraft (OMEGA/MEx): Global mineral maps. Journal of Geophysical Research, 2007, 112, .	3.3	191
80	Coordinated analyses of orbital and Spirit Rover data to characterize surface materials on the cratered plains of Gusev Crater, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	29
81	On the origin of gypsum in the Mars north polar region. Journal of Geophysical Research, 2007, 112, .	3.3	103
82	Remote sensing of surface pressure on Mars with the Mars Express/OMEGA spectrometer: 1. Retrieval method. Journal of Geophysical Research, 2007, 112, .	3.3	38
83	Recovery of surface reflectance spectra and evaluation of the optical depth of aerosols in the nearâ€IR using a Monte Carlo approach: Application to the OMEGA observations of highâ€latitude regions of Mars. Journal of Geophysical Research, 2007, 112, .	3.3	68
84	South Pole of Mars: Nature and composition of the icy terrains from Mars Express OMEGA observations. Planetary and Space Science, 2007, 55, 113-133.	0.9	60
85	Scientific goals for the observation of Venus by VIRTIS on ESA/Venus express mission. Planetary and Space Science, 2007, 55, 1653-1672.	0.9	155
86	Early geochemical environment of Mars as determined from thermodynamics of phyllosilicates. Nature, 2007, 448, 60-63.	13.7	168
87	CIVA. Space Science Reviews, 2007, 128, 397-412.	3.7	47
88	A new method to investigate hyperspectral image cubes: An application of the wavelet transform. Journal of Geophysical Research, 2006, 111, .	3.3	5
89	No signature of clear CO2 ice from the â€˜crypticâ€™ regions in Mars' south seasonal polar cap. Nature, 2006, 442, 790-792.	13.7	54
90	Phyllosilicates on Mars and implications for early martian climate. Nature, 2005, 438, 623-627.	13.7	825

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91	Mars Surface Diversity as Revealed by the OMEGA/Mars Express Observations. Science, 2005, 307, 1576-1581.	6.0	842
92	Spectral Reflectance and Morphologic Correlations in Eastern Terra Meridiani, Mars. Science, 2005, 307, 1591-1594.	6.0	160
93	Olivine and Pyroxene Diversity in the Crust of Mars. Science, 2005, 307, 1594-1597.	6.0	348
94	Sulfates in Martian Layered Terrains: The OMEGA/Mars Express View. Science, 2005, 307, 1587-1591.	6.0	867
95	Summer Evolution of the North Polar Cap of Mars as Observed by OMEGA/Mars Express. Science, 2005, 307, 1581-1584.	6.0	142
96	Sulfates in the North Polar Region of Mars Detected by OMEGA/Mars Express. Science, 2005, 307, 1584-1586.	6.0	450
97	Perennial water ice identified in the south polar cap of Mars. Nature, 2004, 428, 627-630.	13.7	279
98	The Martian Surface Composition. Space Science Reviews, 2001, 96, 293-316.	3.7	21
99	Mineralogy of the Martian surface from Mars Express OMEGA observations. , 0, , 151-168.		7
100	Water on Mars. , 0, , 234-244.		0