

Pierre Beck

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,728
citations

201575

27
h-index

175177

52
g-index

58
all docs

58
docs citations

58
times ranked

2613
citing authors

#	ARTICLE	IF	CITATIONS
1	The SuperCam infrared spectrometer for the perseverance rover of the Mars2020 mission. Icarus, 2022, 373, 114773.	1.1	19
2	The Basal Detectability of an Ice-Covered Mars by MARSIS. Geophysical Research Letters, 2022, 49, .	1.5	12
3	ROMA: A Database of Rock Reflectance Spectra for Martian In Situ Exploration. Earth and Space Science, 2022, 9, .	1.1	6
4	Geometry induced bias in the remote near-IR identification of phyllosilicates on space weathered bodies. Icarus, 2022, 376, 114887.	1.1	3
5	A Late Paleocene age for Greenland's Hiawatha impact structure. Science Advances, 2022, 8, eabm2434.	4.7	4
6	Investigating S-type asteroid surfaces through reflectance spectra of ordinary chondrites. Icarus, 2022, 381, 115012.	1.1	4
7	Nanoscale mineralogy and organic structure in Orgueil (CI) and EET 92042 (CR) carbonaceous chondrites studied with AFM-IR spectroscopy. Meteoritics and Planetary Science, 2022, 57, 3-21.	0.7	8
8	Spectral reflectance analysis of type 3 carbonaceous chondrites and search for their asteroidal parent bodies. Icarus, 2021, 354, 114034.	1.1	11
9	Visible and near-infrared reflectance of hyperfine and hyperporous particulate surfaces. Icarus, 2021, 357, 114141.	1.1	13
10	Low-phase spectral reflectance and equivalent "geometric albedo" of meteorites powders. Icarus, 2021, 354, 114066.	1.1	14
11	Dwarf planet (1) Ceres surface bluing due to high porosity resulting from sublimation. Nature Communications, 2021, 12, 274.	5.8	10
12	"Water" abundance at the surface of C-complex main-belt asteroids. Icarus, 2021, 357, 114125.	1.1	18
13	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	3.7	131
14	Visible-infrared spectroscopy of ungrouped and rare meteorites brings further constraints on meteorite-asteroid connections. Icarus, 2021, 362, 114393.	1.1	12
15	Origins of colors variability among C-cluster main-belt asteroids. Icarus, 2021, 365, 114494.	1.1	5
16	Miller Range 07687 and its place within the CM-CO clan. Meteoritics and Planetary Science, 2021, 56, 1758-1783.	0.7	2
17	Infrared spectroscopy quantification of functional carbon groups in kerogens and coals: A calibration procedure. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 259, 119853.	2.0	12
18	Identification of a new spectral signature at 3.4µm over martian northern high latitudes: Implications for surface composition. Icarus, 2021, 369, 114627.	1.1	1

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19	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. <i>Space Science Reviews</i> , 2021, 217, 4.	3.7	160
20	Aqueous Alteration on Asteroids Simplifies Soluble Organic Matter Mixtures. <i>Astrophysical Journal Letters</i> , 2021, 920, L39.	3.0	9
21	Refining the age, emplacement and alteration scenarios of the olivine-rich unit in the Nili Fossae region, Mars. <i>Icarus</i> , 2020, 336, 113436.	1.1	59
22	The Piancaldoli meteorite: A forgotten primitive LL3.10 ordinary chondrite. <i>Meteoritics and Planetary Science</i> , 2020, 55, .	0.7	11
23	Mineralogy, chemistry, and composition of organic compounds in the fresh carbonaceous chondrite Mukundpura: CM1 or CM2?. <i>Meteoritics and Planetary Science</i> , 2020, 55, 1681-1696.	0.7	10
24	SuperCam Calibration Targets: Design and Development. <i>Space Science Reviews</i> , 2020, 216, 138.	3.7	44
25	Ammonium salts are a reservoir of nitrogen on a cometary nucleus and possibly on some asteroids. <i>Science</i> , 2020, 367, .	6.0	115
26	A model of the 3-1¼m hydration band with Exponentially Modified Gaussian (EMG) profiles: Application to hydrated chondrites and asteroids. <i>Icarus</i> , 2020, 343, 113686.	1.1	9
27	Style and intensity of hydration among C-complex asteroids: A comparison to desiccated carbonaceous chondrites. <i>Icarus</i> , 2020, 348, 113826.	1.1	20
28	Simulated asteroid materials based on carbonaceous chondrite mineralogies. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2067-2082.	0.7	28
29	Some things special about NEAs: Geometric and environmental effects on the optical signatures of hydration. <i>Icarus</i> , 2019, 333, 415-428.	1.1	23
30	Water abundance in the Tagish Lake meteorite from <scp>TGA</scp> and <scp>IR</scp> spectroscopy: Evaluation of aqueous alteration. <i>Meteoritics and Planetary Science</i> , 2019, 54, 1951-1972.	0.7	25
31	Characterization of the organic matter and hydration state of Antarctic micrometeorites: A reservoir distinct from carbonaceous chondrites. <i>Icarus</i> , 2018, 306, 74-93.	1.1	20
32	Direct observations of asteroid interior and regolith structure: Science measurement requirements. <i>Advances in Space Research</i> , 2018, 62, 2141-2162.	1.2	54
33	Prevalence and nature of heating processes in CM and C2-ungrouped chondrites as revealed by insoluble organic matter. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 241, 17-37.	1.6	86
34	What is controlling the reflectance spectra (0.35â€“150â€“Åµm) of hydrated (and dehydrated) carbonaceous chondrites?. <i>Icarus</i> , 2018, 313, 124-138.	1.1	32
35	SHADOWS: a spectro-gonio radiometer for bidirectional reflectance studies of dark meteorites and terrestrial analogs: design, calibrations, and performances on challenging surfaces. <i>Applied Optics</i> , 2018, 57, 8279.	0.9	40
36	COMPOSITIONAL HOMOGENEITY OF CM PARENT BODIES. <i>Astronomical Journal</i> , 2016, 152, 54.	1.9	44

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37	Refractory and semi-volatile organics at the surface of comet 67P/Churyumov-Gerasimenko: Insights from the VIRTIS/Rosetta imaging spectrometer. <i>Icarus</i> , 2016, 272, 32-47.	1.1	127
38	Bidirectional reflectance spectroscopy of carbonaceous chondrites: Implications for water quantification and primary composition. <i>Icarus</i> , 2016, 264, 172-183.	1.1	38
39	A Noachian source region for the "Black Beauty" meteorite, and a source lithology for Mars surface hydrated dust?. <i>Earth and Planetary Science Letters</i> , 2015, 427, 104-111.	1.8	24
40	The organic-rich surface of comet 67P/Churyumov-Gerasimenko as seen by VIRTIS/Rosetta. <i>Science</i> , 2015, 347, aaa0628.	6.0	293
41	INTERPLANETARY DUST PARTICLES AS SAMPLES OF ICY ASTEROIDS. <i>Astrophysical Journal</i> , 2015, 806, 204.	1.6	85
42	The secondary history of Sutter's Mill CM carbonaceous chondrite based on water abundance and the structure of its organic matter from two clasts. <i>Meteoritics and Planetary Science</i> , 2014, 49, 2064-2073.	0.7	21
43	Origin of insoluble organic matter in type 1 and 2 chondrites: New clues, new questions. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 136, 80-99.	1.6	68
44	Transmission infrared spectra (2.5-4µm) of carbonaceous chondrites (CI, CM, CV, CK, CR, C2) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.1	114
45	The abundance and stability of "water" in type 1 and 2 carbonaceous chondrites (CI, CM and CR). <i>Geochimica Et Cosmochimica Acta</i> , 2014, 137, 93-112.	1.6	104
46	Short duration thermal metamorphism in CR chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 122, 267-279.	1.6	39
47	Mid-infrared study of the molecular structure variability of insoluble organic matter from primitive chondrites. <i>Icarus</i> , 2013, 223, 534-543.	1.1	85
48	Dielectric map of the Martian northern hemisphere and the nature of plain filling materials. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	112
49	Photometry of meteorites. <i>Icarus</i> , 2012, 218, 364-377.	1.1	58
50	Fast Precipitation of Acicular Goethite from Ferric Hydroxide Gel under Moderate Temperature (30 Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.4	34
51	Goethite as an alternative origin of the 3.1µm band on dark asteroids. <i>Astronomy and Astrophysics</i> , 2011, 526, A85.	2.1	46
52	The 3.5MHz global reflectivity map of Mars by MARSIS/Mars Express: Implications for the current inventory of subsurface H2O. <i>Icarus</i> , 2010, 210, 612-625.	1.1	82
53	Hydrous mineralogy of CM and CI chondrites from infrared spectroscopy and their relationship with low albedo asteroids. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 4881-4892.	1.6	136
54	Water sorption on martian regolith analogs: Thermodynamics and near-infrared reflectance spectroscopy. <i>Icarus</i> , 2009, 204, 114-136.	1.1	63

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55	Timescales of shock processes in chondritic and martian meteorites. Nature, 2005, 435, 1071-1074.	13.7	125