

Eric Quirico

List of Publications by Year in descending order

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Version: 2024-02-01

126
papers

7,398
citations

30070

54
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56724

83
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127
all docs

127
docs citations

127
times ranked

4685
citing authors

#	ARTICLE	IF	CITATIONS
1	Volatile transport modeling on Triton with new observational constraints. <i>Icarus</i> , 2022, 373, 114764.	2.5	7
2	Geometry induced bias in the remote near-IR identification of phyllosilicates on space weathered bodies. <i>Icarus</i> , 2022, 376, 114887.	2.5	3
3	Nanoscale mineralogy and organic structure in Orgueil (CI) and EET 92042 (CR) carbonaceous chondrites studied with AFM-IR spectroscopy. <i>Meteoritics and Planetary Science</i> , 2022, 57, 3-21.	1.6	8
4	Visible and near-infrared reflectance of hyperfine and hyperporous particulate surfaces. <i>Icarus</i> , 2021, 357, 114141.	2.5	13
5	Water abundance at the surface of C-complex main-belt asteroids. <i>Icarus</i> , 2021, 357, 114125.	2.5	18
6	Thermal History of Asteroid Parent Bodies Is Reflected in Their Metalorganic Chemistry. <i>Astrophysical Journal Letters</i> , 2021, 915, L7.	8.3	7
7	Optical constants of Pluto aerosol analogues from UV to near-IR. <i>Icarus</i> , 2021, 362, 114398.	2.5	13
8	A radiolytic origin of organic matter in primitive chondrites and trans-neptunian objects? New clues from ion irradiation experiments. <i>Icarus</i> , 2021, 364, 114462.	2.5	4
9	Infrared spectroscopy quantification of functional carbon groups in kerogens and coals: A calibration procedure. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 259, 119853.	3.9	12
10	Testing tholins as analogues of the dark reddish material covering Pluto's Cthulhu region. <i>Icarus</i> , 2021, 367, 114574.	2.5	6
11	VIS-IR Spectroscopy of Mixtures of Water Ice, Organic Matter, and Opaque Mineral in Support of Small Body Remote Sensing Observations. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1222.	2.0	4
12	Spectrophotometric characterization of the Philae landing site and surroundings with the Rosetta/OSIRIS cameras. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 1221-1238.	4.4	3
13	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.	1.6	10
14	New insights into the structure and formation of coals, terrestrial and extraterrestrial kerogens from resonant UV Raman spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 282, 156-176.	3.9	16
15	Ammonium salts are a reservoir of nitrogen on a cometary nucleus and possibly on some asteroids. <i>Science</i> , 2020, 367, .	12.6	115
16	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , 2020, 367, .	12.6	64
17	Infrared detection of aliphatic organics on a cometary nucleus. <i>Nature Astronomy</i> , 2020, 4, 500-505.	10.1	41
18	Disk-resolved Photometric Properties of Pluto and the Coloring Materials across its Surface. <i>Astronomical Journal</i> , 2020, 159, 74.	4.7	18

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19	Molecular and isotopic behavior of insoluble organic matter of the Orgueil meteorite upon heating. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 263, 235-247.	3.9	12
20	A New Two-molecule Combination Band as a Diagnostic of Carbon Monoxide Diluted in Nitrogen Ice on Triton. <i>Astronomical Journal</i> , 2019, 158, 17.	4.7	6
21	The iron record of asteroidal processes in carbonaceous chondrites. <i>Meteoritics and Planetary Science</i> , 2019, 54, 2652-2665.	1.6	9
22	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. <i>Science</i> , 2019, 364, .	12.6	113
23	Organic Matter in Interplanetary Dusts and Meteorites. <i>Advances in Astrobiology and Biogeophysics</i> , 2019, , 23-50.	0.6	6
24	Characterization of the organic matter and hydration state of Antarctic micrometeorites: A reservoir distinct from carbonaceous chondrites. <i>Icarus</i> , 2018, 306, 74-93.	2.5	20
25	Laboratory simulations of the Vis-NIR spectra of comet 67P using sub- μm sized cosmochemical analogues. <i>Icarus</i> , 2018, 306, 306-318.	2.5	23
26	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.	3.9	86
27	What is controlling the reflectance spectra (0.35–150 μm) of hydrated (and dehydrated) carbonaceous chondrites?. <i>Icarus</i> , 2018, 313, 124-138.	2.5	32
28	Pluto's haze as a surface material. <i>Icarus</i> , 2018, 314, 232-245.	2.5	50
29	Triton's surface ices: Distribution, temperature and mixing state from VLT/SINFONI observations. <i>Icarus</i> , 2018, 314, 274-293.	2.5	20
30	Inflight radiometric calibration of New Horizons' Multispectral Visible Imaging Camera (MVIC). <i>Icarus</i> , 2017, 287, 140-151.	2.5	14
31	Previously unknown class of metalorganic compounds revealed in meteorites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2819-2824.	7.1	47
32	Physical state and distribution of materials at the surface of Pluto from New Horizons LEISA imaging spectrometer. <i>Icarus</i> , 2017, 287, 229-260.	2.5	99
33	Pluto's global surface composition through pixel-by-pixel Hapke modeling of New Horizons Ralph/LEISA data. <i>Icarus</i> , 2017, 287, 218-228.	2.5	95
34	Comet 67P outbursts and quiescent coma at 1.3 au from the Sun: dust properties from Rosetta/VIRTIS-H observations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S443-S458.	4.4	56
35	Photometric behaviour of 67P/Churyumov-Gerasimenko and analysis of its pre-perihelion diurnal variations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S346-S356.	4.4	16
36	Thermal history of type 3 chondrites from the Antarctic meteorite collection determined by Raman spectroscopy of their polyaromatic carbonaceous matter. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 189, 312-337.	3.9	82

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37	Detection of exposed H ₂ O ice on the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2016, 595, A102.	5.1	67
38	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.	2.5	127
39	The global surface composition of 67P/CG nucleus by Rosetta/VIRTIS. (I) Prelanding mission phase. <i>Icarus</i> , 2016, 274, 334-349.	2.5	54
40	The formation of Charon's red poles from seasonally cold-trapped volatiles. <i>Nature</i> , 2016, 539, 65-68.	27.8	44
41	Seasonal exposure of carbon dioxide ice on the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Science</i> , 2016, 354, 1563-1566.	12.6	61
42	Cosmochemical implications of CONSERT permittivity characterization of 67P/CG. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, S516-S532.	4.4	59
43	Exposed water ice on the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Nature</i> , 2016, 529, 368-372.	27.8	104
44	Surface compositions across Pluto and Charon. <i>Science</i> , 2016, 351, aad9189.	12.6	242
45	Bidirectional reflectance spectroscopy of carbonaceous chondrites: Implications for water quantification and primary composition. <i>Icarus</i> , 2016, 264, 172-183.	2.5	38
46	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.	4.4	24
47	Photometric properties of comet 67P/Churyumov-Gerasimenko from VIRTIS-M onboard Rosetta. <i>Astronomy and Astrophysics</i> , 2015, 583, A31.	5.1	71
48	Ion irradiation of the Murchison meteorite: Visible to mid-infrared spectroscopic results. <i>Astronomy and Astrophysics</i> , 2015, 577, A41.	5.1	59
49	Hydrogen isotope exchanges between water and methanol in interstellar ices. <i>Astronomy and Astrophysics</i> , 2015, 584, A98.	5.1	27
50	Visible-IR and Raman microspectroscopic investigation of three Itokawa particles collected by Hayabusa: Mineralogy and degree of space weathering based on nondestructive analyses. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1562-1576.	1.6	24
51	Interstellar and interplanetary solids in the laboratory. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 416-419.	0.0	1
52	The asteroid-comet continuum from laboratory and space analyses of comet samples and micrometeorites. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 253-256.	0.0	2
53	The organic-rich surface of comet 67P/Churyumov-Gerasimenko as seen by VIRTIS/Rosetta. <i>Science</i> , 2015, 347, aaa0628.	12.6	293
54	The diurnal cycle of water ice on comet 67P/Churyumov-Gerasimenko. <i>Nature</i> , 2015, 525, 500-503.	27.8	199

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55	Kinetics of hydrogen/deuterium exchanges in cometary ices. <i>Icarus</i> , 2015, 261, 14-30.	2.5	12
56	Formation of analogs of cometary nitrogen-rich refractory organics from thermal degradation of tholin and HCN polymer. <i>Icarus</i> , 2015, 250, 53-63.	2.5	23
57	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.	1.6	21
58	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.	3.9	68
59	Ion irradiation of Allende meteorite probed by visible, IR, and Raman spectroscopies. <i>Icarus</i> , 2014, 237, 278-292.	2.5	60
60	Transmission infrared spectra (2-25 μ m) of carbonaceous chondrites (CI, CM, CV, CK, CR, C2) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.5	114
61	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.	3.9	104
62	Interstellar and interplanetary carbonaceous solids in the laboratory. <i>Geochemical Journal</i> , 2014, 48, 511-518.	1.0	6
63	Short duration thermal metamorphism in CR chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 122, 267-279.	3.9	39
64	UltraCarbonaceous Antarctic micrometeorites, probing the Solar System beyond the nitrogen snow-line. <i>Icarus</i> , 2013, 224, 243-252.	2.5	103
65	Mid-infrared study of the molecular structure variability of insoluble organic matter from primitive chondrites. <i>Icarus</i> , 2013, 223, 534-543.	2.5	85
66	Hydrogen isotopic composition of the water in CR chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 106, 111-133.	3.9	55
67	Compositional and structural investigation of HCN polymer through high resolution mass spectrometry. <i>International Journal of Mass Spectrometry</i> , 2013, 354-355, 193-203.	1.5	22
68	The ¹⁵ N-enrichment in dark clouds and Solar System objects. <i>Icarus</i> , 2013, 223, 582-590.	2.5	85
69	New insights into the structure and chemistry of Titan's tholins via ¹³ C and ¹⁵ N solid state nuclear magnetic resonance spectroscopy. <i>Icarus</i> , 2012, 221, 844-853.	2.5	39
70	Formation of Amino Acids and Nucleotide Bases in a Titan Atmosphere Simulation Experiment. <i>Astrobiology</i> , 2012, 12, 809-817.	3.0	158
71	Origin of iron oxide spherules in the banded iron formation of the Bababudan Group, Dharwar Craton, Southern India. <i>Journal of Asian Earth Sciences</i> , 2012, 52, 31-42.	2.3	23
72	The redox state of iron in the matrix of CI, CM and metamorphosed CM chondrites by XANES spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 99, 305-316.	3.9	36

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73	Optical constants from 370nm to 900nm of Titan tholins produced in a low pressure RF plasma discharge. <i>Icarus</i> , 2012, 218, 356-363.	2.5	33
74	Pressure dependent trace gas trapping in amorphous water ice at 77 K: Implications for determining conditions of comet formation. <i>Icarus</i> , 2012, 218, 760-770.	2.5	28
75	High resolution TEM of chondritic carbonaceous matter: Metamorphic evolution and heterogeneity. <i>Meteoritics and Planetary Science</i> , 2012, 47, 345-362.	1.6	42
76	Methanol ice on the surface of minor bodies in the solar system. <i>Astronomy and Astrophysics</i> , 2012, 544, A20.	5.1	22
77	Fast Precipitation of Acicular Goethite from Ferric Hydroxide Gel under Moderate Temperature (30 Tj ETQq1 1 0.784314 rgBJ /Overlock	3.0	34
78	A reappraisal of the metamorphic history of EH3 and EL3 enstatite chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3088-3102.	3.9	38
79	Raman characterization of carbonaceous matter in CONCORDIA Antarctic micrometeorites. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1363-1375.	1.6	53
80	Goethite as an alternative origin of the 3.1 μ m band on dark asteroids. <i>Astronomy and Astrophysics</i> , 2011, 526, A85.	5.1	46
81	Organic materials in planetary and protoplanetary systems: nature or nurture?. <i>Astronomy and Astrophysics</i> , 2011, 533, A98.	5.1	27
82	NIR spectral trends of HED meteorites: Can we discriminate between the magmatic evolution, mechanical mixing and observation geometry effects?. <i>Icarus</i> , 2011, 216, 560-571.	2.5	39
83	Goethite as an alternative origin of the 3.1 μ m band on dark asteroids (Corrigendum). <i>Astronomy and Astrophysics</i> , 2011, 530, C2.	5.1	1
84	The puzzling deuteration of methanol in low- to high-mass protostars. <i>Astronomy and Astrophysics</i> , 2011, 528, L13.	5.1	34
85	A TENTATIVE IDENTIFICATION OF HCN ICE ON TRITON. <i>Astrophysical Journal Letters</i> , 2010, 718, L53-L57.	8.3	51
86	In situ kinetic measurements of gas-solid carbonation of Ca(OH) ₂ by using an infrared microscope coupled to a reaction cell. <i>Chemical Engineering Journal</i> , 2010, 161, 250-256.	12.7	63
87	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.	3.9	136
88	Speciation of sulfur in the insoluble organic matter from carbonaceous chondrites by XANES spectroscopy. <i>Earth and Planetary Science Letters</i> , 2010, 300, 321-328.	4.4	58
89	Very high resolution mass spectrometry of HCN polymers and tholins. <i>Faraday Discussions</i> , 2010, 147, 495.	3.2	49
90	Pristine extraterrestrial material with unprecedented nitrogen isotopic variation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 10522-10527.	7.1	72

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91	Graphitic carbon nitride C ₆ N ₉ H ₃ ·HCl: Characterisation by UV and near-IR FT Raman spectroscopy. <i>Journal of Solid State Chemistry</i> , 2009, 182, 2670-2677.	2.9	80
92	Removal of oxyanions from synthetic wastewater via carbonation process of calcium hydroxide: Applied and fundamental aspects. <i>Journal of Hazardous Materials</i> , 2009, 166, 788-795.	12.4	61
93	Chemical Characterization of Titanâ€™s Tholins: Solubility, Morphology and Molecular Structure Revisited. <i>Journal of Physical Chemistry A</i> , 2009, 113, 11195-11203.	2.5	81
94	Precursor and metamorphic condition effects on Raman spectra of poorly ordered carbonaceous matter in chondrites and coals. <i>Earth and Planetary Science Letters</i> , 2009, 287, 185-193.	4.4	113
95	STRATIFICATION OF METHANE ICE ON ERIS' SURFACE. <i>Astronomical Journal</i> , 2009, 137, 315-328.	4.7	55
96	Connection between micrometeorites and Wild 2 particles: From Antarctic snow to cometary ices. <i>Meteoritics and Planetary Science</i> , 2009, 44, 1643-1661.	1.6	61
97	Hydrogen/deuterium exchange in interstellar ice analogs. <i>Astronomy and Astrophysics</i> , 2009, 496, L21-L24.	5.1	46
98	New experimental constraints on the composition and structure of tholins. <i>Icarus</i> , 2008, 198, 218-231.	2.5	144
99	Magnetic classification of stony meteorites: 2. Non-ordinary chondrites. <i>Meteoritics and Planetary Science</i> , 2008, 43, 959-980.	1.6	73
100	Tholins and their relevance for astrophysical issues. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 409-416.	0.0	4
101	Organic matter and metamorphic history of CO chondrites. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 1605-1623.	3.9	154
102	Determination of the petrologic type of CV3 chondrites by Raman spectroscopy of included organic matter. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 1849-1863.	3.9	277
103	Reflectance spectra and chemical structure of Titan's tholins: Application to the analysis of Cassiniâ€™Huygens observations. <i>Icarus</i> , 2006, 185, 301-307.	2.5	84
104	A micro-Raman survey of 10 IDPs and 6 carbonaceous chondrites. <i>Planetary and Space Science</i> , 2005, 53, 1443-1448.	1.7	60
105	Maturation grade of coals as revealed by Raman spectroscopy: Progress and problems. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2005, 61, 2368-2377.	3.9	176
106	Metamorphic grade of organic matter in six unequilibrated ordinary chondrites. <i>Meteoritics and Planetary Science</i> , 2003, 38, 795-811.	1.6	105
107	Small hypervelocity particles captured in aerogel collectors: Location, extraction, handling and storage. <i>Meteoritics and Planetary Science</i> , 2002, 37, 855-865.	1.6	21
108	The Temperature-Dependent Spectrum of Methane Ice I between 0.7 and 5 μ m and Opportunities for Near-Infrared Remote Thermometry. <i>Icarus</i> , 2002, 155, 486-496.	2.5	135

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109	Synchrotron radiation as a tool for in situ investigation of extraterrestrial grains in low-density collectors: application to the analyses of the PIE polyimide foams targets. <i>Planetary and Space Science</i> , 2002, 50, 1055-1065.	1.7	6
110	The 2000 Rosetta asteroid targets observational campaign: 140 Siwa and 4979 Otawara. <i>Astronomy and Astrophysics</i> , 2001, 379, 660-663.	5.1	4
111	Structural and chemical alteration of crystalline olivine under low energy He+ irradiation. <i>Astronomy and Astrophysics</i> , 2001, 368, L38-L41.	5.1	130
112	Pluto's Non-isothermal Surface. <i>Icarus</i> , 2000, 147, 220-250.	2.5	63
113	Water Ice on Triton. <i>Icarus</i> , 2000, 147, 309-316.	2.5	66
114	Synchrotron infrared microscopy of micron-sized extraterrestrial grains. <i>Planetary and Space Science</i> , 2000, 48, 1329-1339.	1.7	42
115	Composition, Physical State, and Distribution of Ices at the Surface of Triton. <i>Icarus</i> , 1999, 139, 159-178.	2.5	194
116	Evidence for Methane Segregation at the Surface of Pluto. <i>Icarus</i> , 1999, 142, 421-444.	2.5	149
117	Ethane on Pluto?. <i>Science</i> , 1999, 285, 1355c-1355.	12.6	2
118	The Surface Compositions of Triton, Pluto, and Charon. <i>Astrophysics and Space Science Library</i> , 1998, , 655-684.	2.7	34
119	Optical Properties of Ices From UV to Infrared. <i>Astrophysics and Space Science Library</i> , 1998, , 199-240.	2.7	91
120	Near-Infrared Spectroscopy of Simple Hydrocarbons and Carbon Oxides Diluted in Solid N ₂ and as Pure Ices: Implications for Triton and Pluto. <i>Icarus</i> , 1997, 127, 354-378.	2.5	173
121	A Spectroscopic Study of CO Diluted in N ₂ Ice: Applications for Triton and Pluto. <i>Icarus</i> , 1997, 128, 181-188.	2.5	57
122	Spectroscopy of some ices of astrophysical interest: SO ₂ , N ₂ and N ₂ : CH ₄ mixtures. <i>Planetary and Space Science</i> , 1996, 44, 973-986.	1.7	36
123	The Temperature-Dependent Spectra of $\hat{1}\pm$ and $\hat{1}^2$ Nitrogen Ice with Application to Triton. <i>Icarus</i> , 1993, 105, 254-258.	2.5	63
124	The temporal evolution of exposed water ice-rich areas on the surface of 67P/Churyumov-Gerasimenko: spectral analysis. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stw3281.	4.4	13
125	and seasonal variability. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stw3177.	4.4	10
126	Sample return of primitive matter from the outer Solar System. <i>Experimental Astronomy</i> , 0, , 1.	3.7	2