Vincenzo Orofino

List of Publications by Year
in descending order

75 papers	2,148 citations	361413 20 h-index	233421 45 g-index
78 all docs	78 docs citations	78 times ranked	1886 citing authors

#	Article	IF	Citations
1	The organic-rich surface of comet 67P/Churyumov-Gerasimenko as seen by VIRTIS/Rosetta. Science, 2015, 347, aaa0628.	12.6	293
2	Scientific goals for the observation of Venus by VIRTIS on ESA/Venus express mission. Planetary and Space Science, 2007, 55, 1653-1672.	1.7	155
3	The Planetary Fourier Spectrometer (PFS) onboard the European Mars Express mission. Planetary and Space Science, 2005, 53, 963-974.	1.7	151
4	Refractory and semi-volatile organics at the surface of comet 67P/Churyumov-Gerasimenko: Insights from the VIRTIS/Rosetta imaging spectrometer. Icarus, 2016, 272, 32-47.	2.5	127
5	Spectral alteration of the Meteorite Epinal (H5) induced by heavy ion irradiation: a simulation of space weathering effects on near-Earth asteroids. Icarus, 2005, 174, 31-35.	2.5	116
6	South-polar features on Venus similar to those near the north pole. Nature, 2007, 450, 637-640.	27.8	110
7	The Surface Composition and Temperature of Asteroid 21 Lutetia As Observed by Rosetta/VIRTIS. Science, 2011, 334, 492-494.	12.6	110
8	Exposed water ice on the nucleus of comet 67P/Churyumovâ€“Gerasimenko. Nature, 2016, 529, 368-372.	27.8	104
9	A dynamic upper atmosphere of Venus as revealed by VIRTIS on Venus Express. Nature, 2007, 450, 641-645.	27.8	95
10	Modeling asteroid surfaces from observations and irradiation experiments: The case of 832 Karin. Icarus, 2006, 184, 327-337.	2.5	92
11	Space weathering of silicates simulated by nanosecond pulse UV excimer laser. Icarus, 2006, 180, 546-554.	2.5	89
12	Virtis : an imaging spectrometer for the rosetta mission. Planetary and Space Science, 1998, 46, 1291-1304.	1.7	72
13	Global Map of Martian Fluvial Systems: Age and Total Eroded Volume Estimations. Earth and Space Science, 2018, 5, 560-577.	2.6	34
14	The changing temperature of the nucleus of comet 67P induced by morphological and seasonal effects. Nature Astronomy, 2019, 3, 649-658.	10.1	34
15	Optical characterization of laser ablated silicates. Icarus, 2007, 191, 381-393.	2.5	31
16	The infrared optical constants of limestone particles and implications for the search of carbonates on Mars. Planetary and Space Science, 1998, 46, 1659-1669.	1.7	30
17	Cluster analysis of planetary remote sensing spectral data. Journal of Geophysical Research, 2006, 111, .	3.3	28
18	Estimate of the water flow duration in large Martian fluvial systems. Planetary and Space Science, 2018, 163, 83-96.	1.7	26

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19	Statistical exploration and volume reduction of planetary remote sensing spectral data. Journal of Geophysical Research, 2008, 113, .	3.3	22
20	Interstellar amorphous carbon. Astrophysical Journal, 1987, 321, L87.	4.5	22
21	Carbonaceous materials as components of cometary dust. Advances in Space Research, 1989, 9, 285-289.	2.6	21
22	Presence and detection of carbonates on the Martian surface. Journal of Geophysical Research, 2001, 106, 27815-27822.	3.3	20
23	Effect of composition on IR spectra of synthetic amorphous silicate cosmic dust analogues. Planetary and Space Science, 1995, 43, 1241-1246.	1.7	19
24	The complex refractive index of limestone particles: an extension to the FIR range for Mars applications. Planetary and Space Science, 2002, 50, 839-847.	1.7	17
25	Carbonates and coated particles on Mars. Planetary and Space Science, 2000, 48, 1341-1347.	1.7	16
26	Study of terrestrial fossils in phyllosilicate-rich soils: Implication in the search for biosignatures on Mars. Icarus, 2010, 208, 202-206.	2.5	16
27	Infrared transmission spectroscopy of carbonate samples of biotic origin relevant to Mars exobiological studies. Icarus, 2007, 187, 457-463.	2.5	15
28	Hydrogenated amorphous carbon grains in Comet Halley?. Astrophysical Journal, 1990, 348, 718.	4.5	14
29	Crystalline comet dust: Laboratory experiments on a simple silicate system. Meteoritics and Planetary Science, 2003, 38, 457-478.	1.6	13
30	Infrared spectroscopy of microbially induced carbonates and past life on Mars. Icarus, 2013, 226, 119-126.	2.5	13
31	Time-dependent degradation of biotic carbonates and the search for past life on Mars. Planetary and Space Science, 2009, 57, 632-639.	1.7	12
32	New Possible Astronomic Alignments at the Megalithic Site of Göbekli Tepe, Turkey. Archaeological Discovery, 2015, 03, 40-50.	0.5	12
33	2.5â€“300 Î¼m laboratory observations of submicron SiC particles as cosmic dust candidates. Infrared Physics, 1986, 26, 37-42.	0.5	11
34	Amorphous carbon around carbon stars. Astrophysics and Space Science, 1987, 138, 127-140.	1.4	11
35	Modelling the influence of surface emittance and atmospheric transmittance on Martian spectra. Advances in Space Research, 1997, 19, 1281-1284.	2.6	11
36	The optical constants of gypsum particles as analog of Martian sulfates. Advances in Space Research, 2004, 33, 2246-2251.	2.6	11

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37	Ultraviolet spectra of amorphous carbon grains: Comparison with the circumstellar extinction around C-rich objects. Astrophysical Journal, 1994, 436, 831.	4.5	11
38	Carbon Grains Produced in Partially Hydrogenated Atmospheres and Their Astrophysical Relevance. Astrophysical Journal, 1996, 472, 419-423.	4.5	11
39	Crystallisation processes in cosmic silicates: Laboratory progress towards understanding structuralâ€“spectral relationships. Advances in Space Research, 2007, 39, 375-391.	2.6	9
40	Raman spectra of submicron amorphous carbon grains and mixtures of polycyclic aromatic hydrocarbons. Infrared Physics, 1988, 28, 383-388.	0.5	8
41	Raman spectra of different carbonaceous materials of astrophysical interest. Infrared Physics, 1990, 30, 19-25.	0.5	8
42	Evaluation of carbonate abundance in putative martian paleolake basins. Icarus, 2009, 200, 426-435.	2.5	8
43	Midinfrared spectra and optical constants of bulk hematite: Comparison with particulate hematite spectra. Icarus, 2011, 211, 839-848.	2.5	8
44	Kinetics of White Soft Minerals (WSMs) Decomposition under Conditions of Interest for Astrobiology: A Theoretical and Experimental Study. Geosciences (Switzerland), 2019, 9, 101.	2.2	8
45	A Model for the Amorphous Carbon Grains around C-rich Objects. Astrophysical Journal, 1995, 448, 339.	4.5	8
46	Diffuse reflectance of altered olivine grains: Remote sensing detection and implications for Mars studies. Planetary and Space Science, 2006, 54, 784-793.	1.7	7
47	On the Interstellar Extinction Hump and Laboratory Carbonaceous Grains. Astrophysical Journal, 1996, 462, 1020.	4.5	7
48	The 4.6 micron feature of â€“SiH groups in silicate dust grains and infrared cometary spectra. Planetary and Space Science, 1999, 47, 781-785.	1.7	6
49	Optical constants of particulate minerals from reflectance measurements: The case of calcite. Journal of Quantitative Spectroscopy and Radiative Transfer, 2006, 100, 250-255.	2.3	6
50	Microbialites vs detrital micrites: Degree of biogenicity, parameter suitable for Mars analogues. Planetary and Space Science, 2014, 97, 34-42.	1.7	6
51	Comparison of astronomical software programs for archaeoastronomical applications. Astronomy and Computing, 2018, 25, 118-132.	1.7	6
52	Taurid complex smoking gun: Detection of cometary activity. Planetary and Space Science, 2021, 207, 105306.	1.7	6
53	Temperature behavior of infrared spectra of polycyclic aromatic hydrocarbons and the Unidentified Infrared Bands. Astrophysical Journal, 1990, 364, 152.	4.5	6
54	A spectroscopic method for identifying terrestrial biocarbonates and application to Mars. Icarus, 2011, 213, 473-479.	2.5	5

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55	Kinetics of Thermal Decomposition of Particulate Samples of MgCO3: Experiments and Models. Chemistry, 2022, 4, 548-559.	2.2	5
56	The spectroscopic search for carbonates on the surface and in the atmosphere of mars: Laboratory measurements and numerical simulations. Advances in Space Research, 1999, 23, 1609-1612.	2.6	4
57	On Potential Spectroscopic Detection of Microfossils on Mars. Earth, Moon and Planets, 2007, 101, 127-140.	0.6	4
58	Radiation transfer modelling of the dust torus of phobos in view of the Mars mission. Planetary and Space Science, 1995, 43, 1479-1483.	1.7	3
59	Infrared reflectance spectra of particulate mixtures. Journal of Geophysical Research, 2010, 115, .	3.3	3
60	SEM morphological studies of carbonates and the search for ancient life on Mars. International Journal of Astrobiology, 2017, 16, 137-142.	1.6	3
61	Aqueous alteration detection in Tikhonravov crater, Mars. Planetary and Space Science, 2018, 152, 165-175.	1.7	3
62	Detection of aqueous alteration minerals in Martian open and closed paleolake basins. Planetary and Space Science, 2021, 208, 105342.	1.7	3
63	Laboratory simulations of martian dust. Advances in Space Research, 1997, 20, 1605-1608.	2.6	2
64	Processing of amorphous carbon grains produced in hydrogen-rich atmosphere. Advances in Space Research, 1999, 24, 443-447.	2.6	2
65	An infrared zoom for space applications. Planetary and Space Science, 2000, 48, 523-528.	1.7	2
66	Far-infrared emission from dust in the Bok globule Barnard 335. Monthly Notices of the Royal Astronomical Society, 1993, 262, 805-811.	4.4	1
67	Variability of Circumstellar Emission from Dust Envelopes Around Carbon Stars. Astrophysics and Space Science, 1998, 262, 107-113.	1.4	1
68	Photometric modelling of the Martian dust rings. Planetary and Space Science, 1998, 46, 1697-1709.	1.7	1
69	A study of physical processes on the surface of mars and their possible bearing on the detectability of carbonates. Advances in Space Research, 2001, 28, 1191-1196.	2.6	1
70	Measurements of spectral emissivity related to planetary missions. Advances in Space Research, 2002, 29, 789-795.	2.6	1
71	Assessing spectral evidence of aqueous activity in two putative martian paleolakes. Icarus, 2011, 214, 240-245.	2.5	1
72	The role of particle size in the laboratory reflectance spectra of pyroxenes: The case of the 670-nm minor feature. Planetary and Space Science, 2015, 117, 96-105.	1.7	1

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73	Laboratory Spectra of Amorphous and Crystalline Olivine: An Application to Comet Halley IR Spectrum. International Astronomical Union Colloquium, 1991, 126, 125-128.	0.1	0
74	The fir emission of dust particles around c-rich IRAS sources. Astrophysics and Space Science, 1995, 224, 227-231.	1.4	0
75	Variability of Circumstellar Emission from Dust Envelopes Around Carbon Stars. Astrophysics and Space Science, 1997, 251, 97-102.	1.4	0