Joy A Crisp

List of Publications by Year
in descending order

75 papers	12,756 citations	43973 48 h-index	85405 71 g-index
76 all docs	76 docs citations	76 times ranked	6782 citing authors

#	Article	IF	Citations
1	In Situ Evidence for an Ancient Aqueous Environment at Meridiani Planum, Mars. Science, 2004, 306, 1709-1714.	6.0	845
2	Rates of magma emplacement and volcanic output. Journal of Volcanology and Geothermal Research, 1984, 20, 177-211.	0.8	729
3	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
4	Mars Science Laboratory Mission and Science Investigation. Space Science Reviews, 2012, 170, 5-56.	3.7	650
5	The Chemical Composition of Martian Soil and Rocks Returned by the Mobile Alpha Proton X-ray Spectrometer: Preliminary Results from the X-ray Mode. Science, 1997, 278, 1771.1-1774.	6.0	536
6	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
7	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	6.0	475
8	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
9	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
10	An integrated view of the chemistry and mineralogy of martian soils. Nature, 2005, 436, 49-54.	13.7	348
11	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	6.0	327
12	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
13	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
14	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
15	Long-term volumetric eruption rates and magma budgets. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	322
16	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
17	Mineralogic and compositional properties of Martian soil and dust: Results from Mars Pathfinder. Journal of Geophysical Research, 2000, 105, 1721-1755.	3.3	274
18	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246

#	Article	IF	Citations
19	Isotope Ratios of H, C, and O in CO ₂ and H ₂ O of the Martian Atmosphere. Science, 2013, 341, 260-263.	6.0	241
20	Characterization and petrologic interpretation of olivine-rich basalts at Gusev Crater, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	227
21	Chemical, multispectral, and textural constraints on the composition and origin of rocks at the Mars Pathfinder landing site. Journal of Geophysical Research, 1999, 104, 8679-8715.	3.3	226
22	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
23	Background levels of methane in Marsâ€™ atmosphere show strong seasonal variations. Science, 2018, 360, 1093-1096.	6.0	224
24	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. Space Science Reviews, 2012, 170, 341-399.	3.7	220
25	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	6.0	215
26	A model for lava flows with two thermal components. Journal of Geophysical Research, 1990, 95, 1255-1270.	3.3	189
27	Characterization of the Martian Surface Deposits by the Mars Pathfinder Rover, Sojourner. Science, 1997, 278, 1765-1768.	6.0	173
28	Silicic volcanism on Mars evidenced by tridymite in high-SiO ₂ sedimentary rock at Gale crater. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7071-7076.	3.3	158
29	Selection of the Mars Exploration Rover landing sites. Journal of Geophysical Research, 2003, 108, .	3.3	155
30	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	4.7	150
31	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, .	3.3	148
32	Soil-like deposits observed by Sojourner, the Pathfinder rover. Journal of Geophysical Research, 1999, 104, 8729-8746.	3.3	142
33	Mineralogy and geochemistry of sedimentary rocks and eolian sediments in Gale crater, Mars: A review after six Earth years of exploration with Curiosity. Chemie Der Erde, 2020, 80, 125605.	0.8	137
34	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	0.9	122
35	Overview of the Mars Pathfinder Mission: Launch through landing, surface operations, data sets, and science results. Journal of Geophysical Research, 1999, 104, 8523-8553.	3.3	121
36	Eruption volume, periodicity, and caldera area: Relationships and inferences on development of compositional zonation in silicic magma chambers. Journal of Volcanology and Geothermal Research, 1981, 11, 169-187.	0.8	120

#	Article	IF	Citations
37	Crystallization history of the 1984 Mauna Loa lava flow. Journal of Geophysical Research, 1994, 99, 7177.	3.3	105
38	Overview of the Mars Science Laboratory mission: Bradbury Landing to Yellowknife Bay and beyond. Journal of Geophysical Research E: Planets, 2014, 119, 1134-1161.	1.5	104
39	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	6.0	103
40	Mars Exploration Rover mission. Journal of Geophysical Research, 2003, 108, .	3.3	102
41	Assessment of Mars Exploration Rover landing site predictions. Nature, 2005, 436, 44-48.	13.7	101
42	Mineralogy of volcanic rocks in Gusev Crater, Mars: Reconciling MÃ¶ssbauer, Alpha Particle Xâ€Ray Spectrometer, and Miniature Thermal Emission Spectrometer spectra. Journal of Geophysical Research, 2008, 113, .	3.3	96
43	Influence of crystallization and entrainment of cooler material on the emplacement of basaltic aa lava flows. Journal of Geophysical Research, 1994, 99, 11819-11831.	3.3	83
44	The infrared spectrum of H₂S from 1 to 5â€‚Î¼m. Canadian Journal of Physics, 1994, 72, 989-1000.	0.4	69
45	Thermal infrared spectral character of Hawaiian basaltic glasses. Journal of Geophysical Research, 1990, 95, 21657-21669.	3.3	67
46	The Absorption Spectrum of H2S Between 2150 and 4260 cmâˆ'1: Analysis of the Positions and Intensities in the First (2Î½2, Î½1, and Î½3) and Second (3Î½2, Î½1+ Î½2, and Î½2+ Î½3) Triad Regions. Journal of Molecular Spectroscopy, 1998, 188, 148-174.	0.4	59
47	Eruption constraints on tube-fed planetary lava flows. Journal of Geophysical Research, 1997, 102, 6597-6613.	3.3	57
48	Curiosity's Mission of Exploration at Gale Crater, Mars. Elements, 2015, 11, 19-26.	0.5	55
49	Evidence for Multiple Diagenetic Episodes in Ancient Fluvialâ€Lacustrine Sedimentary Rocks in Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006295.	1.5	45
50	Analysis of active volcanoes from the earth observing system. Remote Sensing of Environment, 1991, 36, 1-12.	4.6	40
51	The first X-ray diffraction measurements on Mars. IUCrJ, 2014, 1, 514-522.	1.0	38
52	A method for estimating eruption rates of planetary lava flows. Icarus, 1990, 85, 512-515.	1.1	37
53	Pyroclastic flows and lavas of the Mogan and Fataga formations, Tejeda Volcano, Gran Canaria, Canary Islands: mineral chemistry, intensive parameters, and magma chamber evolution. Contributions To Mineralogy and Petrology, 1987, 96, 503-518.	1.2	34
54	Bounce Rockâ€"A shergottiteâ€like basalt encountered at Meridiani Planum, Mars. Meteoritics and Planetary Science, 2011, 46, 1-20.	0.7	32

#	Article	IF	Citations
55	Midâ€infrared spectroscopy of Pahala ash palagonite and implications for remote sensing studies of Mars. Journal of Geophysical Research, 1992, 97, 14691-14699.	3.3	29
56	Bedrock formation at Meridiani Planum. Nature, 2006, 443, E1-E2.	13.7	28
57	Remote Sensing of Active Volcanism. Geophysical Monograph Series, 2000, , .	0.1	28
58	The Pathfinder Microrover. Journal of Geophysical Research, 1997, 102, 3989-4001.	3.3	27
59	Mars Science Laboratory Mission and Science Investigation. , 2012, , 5-56.		23
60	New statistics for estimating the bulk rheology of active lava flows: Puu Oo examples. Journal of Geophysical Research, 1998, 103, 5133-5142.	3.3	21
61	Radiative Forcing of the Stratosphere by SO2Gas, Silicate Ash, and H2SO4Aerosols Shortly after the 1982 Eruptions of El ChichÃ³n. Journal of Climate, 1995, 8, 1060-1070.	1.2	19
62	Influence of volatile loss on thickness and density profiles of active basaltic flow lobes. Journal of Geophysical Research, 2001, 106, 13395-13405.	3.3	16
63	Selecting landing sites for the 2003 Mars Exploration Rovers. Planetary and Space Science, 2004, 52, 11-21.	0.9	16
64	The Mars Astrobiology Explorer-Cacher (MAX-C): A Potential Rover Mission for 2018. Astrobiology, 2010, 10, 127-163.	1.5	15
65	Design of a miniature solid state NIR spectrometer. , 1995, , .		14
66	Phase relations to 3 kbar in the systems edenite + H2O and edenite + excess quartz + H2O. Lithos, 1986, 19, 153-163.	0.6	12
67	A novel miniature spectrometer using an integrated acoustoâ€optic tunable filter. Review of Scientific Instruments, 1994, 65, 3653-3656.	0.6	11
68	Characteristics of the Pathfinder APXS sites: Implications for the composition of Martian rocks and soils. Journal of Geophysical Research, 2001, 106, 14621-14665.	3.3	10
69	<i>In situ</i> cleaning of instruments for the sensitive detection of organics on Mars. Review of Scientific Instruments, 2012, 83, 105109.	0.6	10
70	Basaltic rocks analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-5.	6.0	9
71	CILIMUS: A NEW CHONDRITE FALL. Meteoritics, 1981, 16, 69-76.	1.5	4
72	THE TAMBAKWATU CHONDRITE. Meteoritics, 1981, 16, 77-81.	1.5	1

#	Article	IF	Citations
73	Fourier-transform spectrum of H 2 S in 2000 - 9000 cm-1. , 1994, 2205, 238.		1
74	Atmospheric Electron Induced X-Ray Spectrometer (AEXS) Development. , 2007, , .		1
75	Mars Exploration Rover Science Results: This Past Year's Highlights. , 2005, , .		0