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	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
2	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
3	Clay mineral diversity and abundance in sedimentary rocks of Gale crater, Mars. Science Advances, 2018, 4, eaar3330.	4.7	150
4	Background levels of methane in Marsâ€™ atmosphere show strong seasonal variations. Science, 2018, 360, 1093-1096.	6.0	224
5	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
6	The origin and implications of clay minerals from Yellowknife Bay, Gale crater, Mars. American Mineralogist, 2015, 100, 824-836.	0.9	122
7	Curiosity's Mission of Exploration at Gale Crater, Mars. Elements, 2015, 11, 19-26.	0.5	55
8	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
9	The first X-ray diffraction measurements on Mars. IUCrJ, 2014, 1, 514-522.	1.0	38
10	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
11	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
12	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
13	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	6.0	475
14	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
15	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
16	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
17	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	6.0	327
18	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280

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19	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
20	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367
21	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
22	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
23	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	6.0	215
24	Low Upper Limit to Methane Abundance on Mars. Science, 2013, 342, 355-357.	6.0	103
25	<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
26	Mars Science Laboratory Mission and Science Investigation. Space Science Reviews, 2012, 170, 5-56.	3.7	650
27	Characterization and Calibration of the CheMin Mineralogical Instrument on Mars Science Laboratory. Space Science Reviews, 2012, 170, 341-399.	3.7	220
28	Mars Science Laboratory Mission and Science Investigation. , 2012, , 5-56.		23
29	Bounce Rockâ€”A shergottiteâ€like basalt encountered at Meridiani Planum, Mars. Meteoritics and Planetary Science, 2011, 46, 1-20.	0.7	32
30	The Mars Astrobiology Explorer-Cacher (MAX-C): A Potential Rover Mission for 2018. Astrobiology, 2010, 10, 127-163.	1.5	15
31	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
32	Atmospheric Electron Induced X-Ray Spectrometer (AEXS) Development. , 2007, , .		1
33	Long-term volumetric eruption rates and magma budgets. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	322
34	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
35	Alkaline volcanic rocks from the Columbia Hills, Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, .	3.3	148
36	Bedrock formation at Meridiani Planum. Nature, 2006, 443, E1-E2.	13.7	28

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37	An integrated view of the chemistry and mineralogy of martian soils. Nature, 2005, 436, 49-54.	13.7	348
38	Assessment of Mars Exploration Rover landing site predictions. Nature, 2005, 436, 44-48.	13.7	101
39	Mars Exploration Rover Science Results: This Past Year's Highlights. , 2005, , .		0
40	In Situ Evidence for an Ancient Aqueous Environment at Meridiani Planum, Mars. Science, 2004, 306, 1709-1714.	6.0	845
41	Selecting landing sites for the 2003 Mars Exploration Rovers. Planetary and Space Science, 2004, 52, 11-21.	0.9	16
42	Basaltic rocks analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-5.	6.0	9
43	Mars Exploration Rover mission. Journal of Geophysical Research, 2003, 108, .	3.3	102
44	Selection of the Mars Exploration Rover landing sites. Journal of Geophysical Research, 2003, 108, .	3.3	155
45	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
46	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
47	Mineralogic and compositional properties of Martian soil and dust: Results from Mars Pathfinder. Journal of Geophysical Research, 2000, 105, 1721-1755.	3.3	274
48	Remote Sensing of Active Volcanism. Geophysical Monograph Series, 2000, , .	0.1	28
49	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
50	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
51	Soil-like deposits observed by Sojourner, the Pathfinder rover. Journal of Geophysical Research, 1999, 104, 8729-8746.	3.3	142
52	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
53	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
54	Eruption constraints on tube-fed planetary lava flows. Journal of Geophysical Research, 1997, 102, 6597-6613.	3.3	57

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55	Characterization of the Martian Surface Deposits by the Mars Pathfinder Rover, Sojourner. Science, 1997, 278, 1765-1768.	6.0	173
56	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
57	The Pathfinder Microrover. Journal of Geophysical Research, 1997, 102, 3989-4001.	3.3	27
58	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
59	Design of a miniature solid state NIR spectrometer. , 1995, , .		14
60	A novel miniature spectrometer using an integrated acoustoâ€optic tunable filter. Review of Scientific Instruments, 1994, 65, 3653-3656.	0.6	11
61	Crystallization history of the 1984 Mauna Loa lava flow. Journal of Geophysical Research, 1994, 99, 7177.	3.3	105
62	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
63	The infrared spectrum of H₂S from 1 to 5â€‚Î¼m. Canadian Journal of Physics, 1994, 72, 989-1000.	0.4	69
64	Fourier-transform spectrum of H 2 S in 2000 - 9000 cm-1. , 1994, 2205, 238.		1
65	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
66	Analysis of active volcanoes from the earth observing system. Remote Sensing of Environment, 1991, 36, 1-12.	4.6	40
67	A method for estimating eruption rates of planetary lava flows. Icarus, 1990, 85, 512-515.	1.1	37
68	A model for lava flows with two thermal components. Journal of Geophysical Research, 1990, 95, 1255-1270.	3.3	189
69	Thermal infrared spectral character of Hawaiian basaltic glasses. Journal of Geophysical Research, 1990, 95, 21657-21669.	3.3	67
70	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
71	Phase relations to 3 kbar in the systems edenite + H2O and edenite + excess quartz + H2O. Lithos, 1986, 19, 153-163.	0.6	12
72	Rates of magma emplacement and volcanic output. Journal of Volcanology and Geothermal Research, 1984, 20, 177-211.	0.8	729

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73	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
74	THE TAMBAKWATU CHONDRITE. Meteoritics, 1981, 16, 77-81.	1.5	1
75	CILIMUS: A NEW CHONDRITE FALL. Meteoritics, 1981, 16, 69-76.	1.5	4