

Ken E Herkenhoff

List of Publications by Year in descending order

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95
papers

11,800
citations

30551

56
h-index

46524

93
g-index

99
all docs

99
docs citations

99
times ranked

4797
citing authors

#	ARTICLE	IF	CITATIONS
1	Mars Reconnaissance Orbiter's High Resolution Imaging Science Experiment (HiRISE). Journal of Geophysical Research, 2007, 112, .	3.3	1,253
2	In Situ Evidence for an Ancient Aqueous Environment at Meridiani Planum, Mars. Science, 2004, 306, 1709-1714.	6.0	845
3	The Opportunity Rover's Athena Science Investigation at Meridiani Planum, Mars. Science, 2004, 306, 1698-1703.	6.0	507
4	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. Science, 2004, 305, 794-799.	6.0	404
5	An integrated view of the chemistry and mineralogy of martian soils. Nature, 2005, 436, 49-54.	13.7	348
6	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
7	Mars Exploration Rover Athena Panoramic Camera (Pancam) investigation. Journal of Geophysical Research, 2003, 108, .	3.3	247
8	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
9	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-845.	6.0	244
10	Results from the Mars Pathfinder Camera. Science, 1997, 278, 1758-1765.	6.0	242
11	Water alteration of rocks and soils on Mars at the Spirit rover site in Gusev crater. Nature, 2005, 436, 66-69.	13.7	240
12	Athena Mars rover science investigation. Journal of Geophysical Research, 2003, 108, .	3.3	233
13	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
14	Redox stratification of an ancient lake in Gale crater, Mars. Science, 2017, 356, .	6.0	209
15	North polar region of Mars: Advances in stratigraphy, structure, and erosional modification. Icarus, 2008, 196, 318-358.	1.1	198
16	Two Years at Meridiani Planum: Results from the Opportunity Rover. Science, 2006, 313, 1403-1407.	6.0	188
17	Curiosity's Mars Hand Lens Imager (MAHLI) Investigation. Space Science Reviews, 2012, 170, 259-317.	3.7	185
18	Mars Exploration Rover Engineering Cameras. Journal of Geophysical Research, 2003, 108, .	3.3	178

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19	Ancient Impact and Aqueous Processes at Endeavour Crater, Mars. <i>Science</i> , 2012, 336, 570-576.	6.0	176
20	Ancient Aqueous Environments at Endeavour Crater, Mars. <i>Science</i> , 2014, 343, 1248097.	6.0	176
21	Characteristics, distribution, origin, and significance of opaline silica observed by the Spirit rover in Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	155
22	Soils of Eagle Crater and Meridiani Planum at the Opportunity Rover Landing Site. <i>Science</i> , 2004, 306, 1723-1726.	6.0	153
23	Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater. <i>Science</i> , 2004, 305, 800-806.	6.0	153
24	The High Resolution Imaging Science Experiment (HiRISE) during MRO's Primary Science Phase (PSP). <i>Icarus</i> , 2010, 205, 2-37.	1.1	153
25	Overview of the Opportunity Mars Exploration Rover Mission to Meridiani Planum: Eagle Crater to Purgatory Ripple. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	149
26	Evidence from Opportunity's Microscopic Imager for Water on Meridiani Planum. <i>Science</i> , 2004, 306, 1727-1730.	6.0	146
27	Rocks of the Columbia Hills. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	146
28	Nature and origin of the hematite-bearing plains of Terra Meridiani based on analyses of orbital and Mars Exploration rover data sets. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	144
29	Large wind ripples on Mars: A record of atmospheric evolution. <i>Science</i> , 2016, 353, 55-58.	6.0	144
30	Exploration of Victoria Crater by the Mars Rover Opportunity. <i>Science</i> , 2009, 324, 1058-1061.	6.0	141
31	Pancam Multispectral Imaging Results from the Opportunity Rover at Meridiani Planum. <i>Science</i> , 2004, 306, 1703-1709.	6.0	135
32	Textures of the Soils and Rocks at Gusev Crater from Spirit's Microscopic Imager. <i>Science</i> , 2004, 305, 824-826.	6.0	130
33	Localization and Physical Property Experiments Conducted by Opportunity at Meridiani Planum. <i>Science</i> , 2004, 306, 1730-1733.	6.0	130
34	Athena Microscopic Imager investigation. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	129
35	Physical properties of the Mars Exploration Rover landing sites as inferred from Mini-TES-derived thermal inertia. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	128
36	Spirit Mars Rover Mission: Overview and selected results from the northern Home Plate Winter Haven to the side of Scamander crater. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	127

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37	Overview of the Mars Pathfinder Mission: Launch through landing, surface operations, data sets, and science results. <i>Journal of Geophysical Research</i> , 1999, 104, 8523-8553.	3.3	121
38	The Mars Science Laboratory (MSL) Mast cameras and Descent imager: Investigation and instrument descriptions. <i>Earth and Space Science</i> , 2017, 4, 506-539.	1.1	117
39	The Mars Science Laboratory <i>Curiosity</i> rover Mastcam instruments: Preflight and in-flight calibration, validation, and data archiving. <i>Earth and Space Science</i> , 2017, 4, 396-452.	1.1	113
40	Light-toned salty soils and coexisting Si-rich species discovered by the Mars Exploration Rover Spirit in Columbia Hills. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	108
41	Opportunity Mars Rover mission: Overview and selected results from Purgatory ripple to traverses to Endeavour crater. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	106
42	Meter-Scale Morphology of the North Polar Region of Mars. <i>Science</i> , 2007, 317, 1711-1715.	6.0	102
43	Spirit Mars Rover Mission to the Columbia Hills, Gusev Crater: Mission overview and selected results from the Cumberland Ridge to Home Plate. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	99
44	Ventifacts at the Pathfinder landing site. <i>Journal of Geophysical Research</i> , 1999, 104, 8595-8615.	3.3	94
45	Wind-Related Processes Detected by the Spirit Rover at Gusev Crater, Mars. <i>Science</i> , 2004, 305, 810-813.	6.0	94
46	Color imaging of Mars by the High Resolution Imaging Science Experiment (HiRISE). <i>Icarus</i> , 2010, 205, 38-52.	1.1	89
47	Evidence for montmorillonite or its compositional equivalent in Columbia Hills, Mars. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	81
48	Windy Mars: A dynamic planet as seen by the HiRISE camera. <i>Geophysical Research Letters</i> , 2007, 34, .	1.5	78
49	Magnetic Properties Experiments on the Mars Exploration Rover Spirit at Gusev Crater. <i>Science</i> , 2004, 305, 827-829.	6.0	77
50	The Mars 2020 Perseverance Rover Mast Camera Zoom (Mastcam-Z) Multispectral, Stereoscopic Imaging Investigation. <i>Space Science Reviews</i> , 2021, 217, 24.	3.7	76
51	Imager for Mars Pathfinder (IMP) image calibration. <i>Journal of Geophysical Research</i> , 1999, 104, 8907-8925.	3.3	75
52	Soil grain analyses at Meridiani Planum, Mars. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	75
53	Meteorites on Mars observed with the Mars Exploration Rovers. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	75
54	MAHLI at the Rocknest sand shadow: Science and science-enabling activities. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 2338-2360.	1.5	67

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55	Overview of the Microscopic Imager Investigation during Spirit's first 450 sols in Gusev crater. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	64
56	The construction of Chasma Boreale on Mars. <i>Nature</i> , 2010, 465, 446-449.	13.7	63
57	Veneers, rinds, and fracture fills: Relatively late alteration of sedimentary rocks at Meridiani Planum, Mars. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	57
58	In situ detection of boron by ChemCam on Mars. <i>Geophysical Research Letters</i> , 2017, 44, 8739-8748.	1.5	56
59	High concentrations of manganese and sulfur in deposits on Murray Ridge, Endeavour Crater, Mars. <i>American Mineralogist</i> , 2016, 101, 1389-1405.	0.9	55
60	Seasonally active frostâ€¦dust avalanches on a north polar scarp of Mars captured by HiRISE. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	48
61	Crater population and resurfacing of the Martian north polar layered deposits. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	48
62	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. <i>Science Advances</i> , 2022, 8, .	4.7	47
63	Columbia Hills, Mars: Aeolian features seen from the ground and orbit. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	46
64	Evaluating the meaning of â€œlayerâ€ in the martian north polar layered deposits and the impact on the climate connection. <i>Icarus</i> , 2010, 205, 269-282.	1.1	42
65	A revised surface age for the North Polar Layered Deposits of Mars. <i>Geophysical Research Letters</i> , 2016, 43, 3060-3068.	1.5	42
66	Evidence of phyllosilicates in Woolly Patch, an altered rock encountered at West Spur, Columbia Hills, by the Spirit rover in Gusev crater, Mars. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	40
67	Surface processes recorded by rocks and soils on Meridiani Planum, Mars: Microscopic Imager observations during Opportunity's first three extended missions. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	39
68	Context of ancient aqueous environments on Mars from in situ geologic mapping at Endeavour Crater. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 538-569.	1.5	37
69	Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 2. Opportunity. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	36
70	The Thermophysical Properties of the Bagnold Dunes, Mars: Groundâ€¦Truthing Orbital Data. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1307-1326.	1.5	34
71	<i>In situ</i> observations of the physical properties of the Martian surface. , 2008, , 451-467.		33
72	Bounce Rockâ€”A shergottiteâ€¦like basalt encountered at Meridiani Planum, Mars. <i>Meteoritics and Planetary Science</i> , 2011, 46, 1-20.	0.7	32

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73	Overview of the magnetic properties experiments on the Mars Exploration Rovers. Journal of Geophysical Research, 2009, 114, .	3.3	31
74	Mars Reconnaissance Orbiter and Opportunity observations of the Burns formation: Crater hopping at Meridiani Planum. Journal of Geophysical Research E: Planets, 2015, 120, 429-451.	1.5	30
75	Evidence for mechanical and chemical alteration of iron-nickel meteorites on Mars: Process insights for Meridiani Planum. Journal of Geophysical Research, 2011, 116, .	3.3	28
76	Stratigraphy of the north polar layered deposits of Mars from high-resolution topography. Journal of Geophysical Research E: Planets, 2016, 121, 1445-1471.	1.5	28
77	Diverse Lithologies and Alteration Events on the Rim of Noachian-Aged Endeavour Crater, Meridiani Planum, Mars: In Situ Compositional Evidence. Journal of Geophysical Research E: Planets, 2018, 123, 1255-1306.	1.5	28
78	First high-resolution stratigraphic column of the Martian north polar layered deposits. Geophysical Research Letters, 2010, 37, .	1.5	24
79	Field reconnaissance geologic mapping of the Columbia Hills, Mars, based on Mars Exploration Rover Spirit and MRO HiRISE observations. Journal of Geophysical Research, 2011, 116, .	3.3	24
80	Soil sedimentology at Gusev Crater from Columbia Memorial Station to Winter Haven. Journal of Geophysical Research, 2008, 113, .	3.3	21
81	Properties and distribution of paired candidate stony meteorites at Meridiani Planum, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	19
82	Temporal observations of bright soil exposures at Gusev crater, Mars. Journal of Geophysical Research, 2011, 116, .	3.3	19
83	Sands at Gusev Crater, Mars. Journal of Geophysical Research E: Planets, 2014, 119, 941-967.	1.5	19
84	Esperance: Multiple episodes of aqueous alteration involving fracture fills and coatings at Matijevic Hill, Mars. American Mineralogist, 2016, 101, 1515-1526.	0.9	19
85	Distribution of primary and secondary features in the Pahrump Hills outcrop (Gale crater, Mars) as seen in a Mars Descent Imager (MARDI) "sidewalk" mosaic. Icarus, 2019, 328, 194-209.	1.1	19
86	Active Mars: A Dynamic World. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006876.	1.5	17
87	Optical designs for the Mars '03 rover cameras. , 2001, 4441, 118.		16
88	Regional and grain size influences on the geochemistry of soil at Gusev crater, Mars. Journal of Geophysical Research, 2010, 115, .	3.3	13
89	The albedo of Mars: Six Mars years of observations from Pancam on the Mars Exploration Rovers and comparisons to MOC, CTX and HiRISE. Icarus, 2018, 314, 159-174.	1.1	10
90	A martian case study of segmenting images automatically for granulometry and sedimentology, Part 1: Algorithm. Icarus, 2014, 229, 400-407.	1.1	9

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91	Visible and near-infrared multispectral analysis of geochemically measured rock fragments at the Opportunity landing site in Meridiani Planum. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	7
92	Textures of the soils and rocks at Gusev Crater from Spirit's Microscopic Imager. <i>Science</i> , 2004, 305, 824-6.	6.0	7
93	Overview of Spirit Microscopic Imager Results. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 528-584.	1.5	4
94	A martian case study of segmenting images automatically for granulometry and sedimentology, Part 2: Assessment. <i>Icarus</i> , 2014, 229, 408-417.	1.1	3
95	Curiosity's Mars Hand Lens Imager (MAHLI) Investigation. , 2012, , 259-317.		0