Ken E Herkenhoff

List of Publications by Year
in descending order

95 papers	11,800 citations	26630 56 h-index	40979 93 g-index
99 all docs	99 docs citations	99 times ranked	4355 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.	12.6	845
3	The Opportunity Rover's Athena Science Investigation at Meridiani Planum, Mars. Science, 2004, 306, 1698-1703.	12.6	507
4	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. Science, 2004, 305, 794-799.	12.6	404
5	An integrated view of the chemistry and mineralogy of martian soils. Nature, 2005, 436, 49-54.	27.8	348
6	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	12.6	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.	12.6	246
9	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-845.	12.6	244
10	Results from the Mars Pathfinder Camera. Science, 1997, 278, 1758-1765.	12.6	242
11	Water alteration of rocks and soils on Mars at the Spirit rover site in Gusev crater. Nature, 2005, 436, 66-69.	27.8	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, .	12.6	209
15	North polar region of Mars: Advances in stratigraphy, structure, and erosional modification. Icarus, 2008, 196, 318-358.	2.5	198
16	Two Years at Meridiani Planum: Results from the Opportunity Rover. Science, 2006, 313, 1403-1407.	12.6	188
17	Curiosityâ€™s Mars Hand Lens Imager (MAHLI) Investigation. Space Science Reviews, 2012, 170, 259-317.	8.1	185
18	Mars Exploration Rover Engineering Cameras. Journal of Geophysical Research, 2003, 108, .	3.3	178

#	Article	IF	Citations
19	Ancient Impact and Aqueous Processes at Endeavour Crater, Mars. Science, 2012, 336, 570-576.	12.6	176
20	Ancient Aqueous Environments at Endeavour Crater, Mars. Science, 2014, 343, 1248097.	12.6	176
21	Characteristics, distribution, origin, and significance of opaline silica observed by the Spirit rover in Gusev crater, Mars. Journal of Geophysical Research, 2011, 116, .	3.3	155
22	Soils of Eagle Crater and Meridiani Planum at the Opportunity Rover Landing Site. Science, 2004, 306, 1723-1726.	12.6	153
23	Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater. Science, 2004, 305, 800-806.	12.6	153
24	The High Resolution Imaging Science Experiment (HiRISE) during MROâ€™s Primary Science Phase (PSP). Icarus, 2010, 205, 2-37.	2.5	153
25	Overview of the Opportunity Mars Exploration Rover Mission to Meridiani Planum: Eagle Crater to Purgatory Ripple. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	149
26	Evidence from Opportunity's Microscopic Imager for Water on Meridiani Planum. Science, 2004, 306, 1727-1730.	12.6	146
27	Rocks of the Columbia Hills. Journal of Geophysical Research, 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. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	144
29	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	12.6	144
30	Exploration of Victoria Crater by the Mars Rover Opportunity. Science, 2009, 324, 1058-1061.	12.6	141
31	Pancam Multispectral Imaging Results from the Opportunity Rover at Meridiani Planum. Science, 2004, 306, 1703-1709.	12.6	135
32	Textures of the Soils and Rocks at Gusev Crater from Spirit's Microscopic Imager. Science, 2004, 305, 824-826.	12.6	130
33	Localization and Physical Property Experiments Conducted by Opportunity at Meridiani Planum. Science, 2004, 306, 1730-1733.	12.6	130
34	Athena Microscopic Imager investigation. Journal of Geophysical Research, 2003, 108, .	3.3	129
35	Physical properties of the Mars Exploration Rover landing sites as inferred from Mini-TES-derived thermal inertia. Journal of Geophysical Research, 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. Journal of Geophysical Research, 2010, 115, .	3.3	127

#	Article	IF	Citations
37	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
38	The Mars Science Laboratory (MSL) Mast cameras and Descent imager: Investigation and instrument descriptions. Earth and Space Science, 2017, 4, 506-539.	2.6	117
39	The Mars Science Laboratory Curiosity rover Mastcam instruments: Preflight and inâ€flight calibration, validation, and data archiving. Earth and Space Science, 2017, 4, 396-452.	2.6	113
40	Lightâ€toned salty soils and coexisting Siâ€rich species discovered by the Mars Exploration Rover Spirit in Columbia Hills. Journal of Geophysical Research, 2008, 113, .	3.3	108
41	Opportunity Mars Rover mission: Overview and selected results from Purgatory ripple to traverses to Endeavour crater. Journal of Geophysical Research, 2011, 116, .	3.3	106
42	Meter-Scale Morphology of the North Polar Region of Mars. Science, 2007, 317, 1711-1715.	12.6	102
43	Spirit Mars Rover Mission to the Columbia Hills, Gusev Crater: Mission overview and selected results from the Cumberland Ridge to Home Plate. Journal of Geophysical Research, 2008, 113, .	3.3	99
44	Ventifacts at the Pathfinder landing site. Journal of Geophysical Research, 1999, 104, 8595-8615.	3.3	94
45	Wind-Related Processes Detected by the Spirit Rover at Gusev Crater, Mars. Science, 2004, 305, 810-813.	12.6	94
46	Color imaging of Mars by the High Resolution Imaging Science Experiment (HiRISE). Icarus, 2010, 205, 38-52.	2.5	89
47	Evidence for montmorillonite or its compositional equivalent in Columbia Hills, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	81
48	Windy Mars: A dynamic planet as seen by the HiRISE camera. Geophysical Research Letters, 2007, 34, .	4.0	78
49	Magnetic Properties Experiments on the Mars Exploration Rover Spirit at Gusev Crater. Science, 2004, 305, 827-829.	12.6	77
50	The Mars 2020 Perseverance Rover Mast Camera Zoom (Mastcam-Z) Multispectral, Stereoscopic Imaging Investigation. Space Science Reviews, 2021, 217, 24.	8.1	76
51	Imager for Mars Pathfinder (IMP) image calibration. Journal of Geophysical Research, 1999, 104, 8907-8925.	3.3	75
52	Soil grain analyses at Meridiani Planum, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	75
53	Meteorites on Mars observed with the Mars Exploration Rovers. Journal of Geophysical Research, 2008, 113, .	3.3	75
54	MAHLI at the Rocknest sand shadow: Science and scienceâ€enabling activities. Journal of Geophysical Research E: Planets, 2013, 118, 2338-2360.	3.6	67

#	Article	IF	Citations
55	Overview of the Microscopic Imager Investigation during Spirit's first 450 sols in Gusev crater. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	64
56	The construction of Chasma Boreale on Mars. Nature, 2010, 465, 446-449.	27.8	63
57	Veneers, rinds, and fracture fills: Relatively late alteration of sedimentary rocks at Meridiani Planum, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	57
58	In situ detection of boron by ChemCam on Mars. Geophysical Research Letters, 2017, 44, 8739-8748.	4.0	56
59	High concentrations of manganese and sulfur in deposits on Murray Ridge, Endeavour Crater, Mars. American Mineralogist, 2016, 101, 1389-1405.	1.9	55
60	Seasonally active frostâ€dust avalanches on a north polar scarp of Mars captured by HiRISE. Geophysical Research Letters, 2008, 35, .	4.0	48
61	Crater population and resurfacing of the Martian north polar layered deposits. Journal of Geophysical Research, 2010, 115, .	3.3	48
62	The dynamic atmospheric and aeolian environment of Jezero crater, Mars. Science Advances, 2022, 8, .	10.3	47
63	Columbia Hills, Mars: Aeolian features seen from the ground and orbit. Journal of Geophysical Research, 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. Icarus, 2010, 205, 269-282.	2.5	42
65	A revised surface age for the North Polar Layered Deposits of Mars. Geophysical Research Letters, 2016, 43, 3060-3068.	4.0	42
66	Evidence of phyllosilicates in Wooly Patch, an altered rock encountered at West Spur, Columbia Hills, by the Spirit rover in Gusev crater, Mars. Journal of Geophysical Research, 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. Journal of Geophysical Research, 2008, 113, .	3.3	39
68	Context of ancient aqueous environments on Mars from in situ geologic mapping at Endeavour Crater. Journal of Geophysical Research E: Planets, 2015, 120, 538-569.	3.6	37
69	Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 2. Opportunity. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	36
70	The Thermophysical Properties of the Bagnold Dunes, Mars: Groundâ€Truthing Orbital Data. Journal of Geophysical Research E: Planets, 2018, 123, 1307-1326.	3.6	34
71	In situ 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. Meteoritics and Planetary Science, 2011, 46, 1-20.	1.6	32

#	Article	IF	Citations
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.	3.6	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 highâ€resolution topography. Journal of Geophysical Research E: Planets, 2016, 121, 1445-1471.	3.6	28
77	Diverse Lithologies and Alteration Events on the Rim of Noachianâ€Aged Endeavour Crater, Meridiani Planum, Mars: In Situ Compositional Evidence. Journal of Geophysical Research E: Planets, 2018, 123, 1255-1306.	3.6	28
78	First highâ€resolution stratigraphic column of the Martian north polar layered deposits. Geophysical Research Letters, 2010, 37, .	4.0	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.	3.6	19
84	Esperance: Multiple episodes of aqueous alteration involving fracture fills and coatings at Matijevic Hill, Mars. American Mineralogist, 2016, 101, 1515-1526.	1.9	19
85	Distribution of primary and secondary features in the Pahrump Hills outcrop (Gale crater, Mars) as seen in a Mars Descent Imager (MARDI) â€œsidewalkâ€•mosaic. Icarus, 2019, 328, 194-209.	2.5	19
86	Active Mars: A Dynamic World. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006876.	3.6	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.	2.5	10
90	A martian case study of segmenting images automatically for granulometry and sedimentology, Part 1: Algorithm. Icarus, 2014, 229, 400-407.	2.5	9

#	Article	IF	Citations
91	Visible and nearâ€infrared multispectral analysis of geochemically measured rock fragments at the Opportunity landing site in Meridiani Planum. Journal of Geophysical Research, 2010, 115, .	3.3	7
92	Textures of the Soils and Rocks at Gusev Crater from Spirit's Microscopic Imager. Science, 2004, 305, 824-826.	12.6	7
93	Overview of Spirit Microscopic Imager Results. Journal of Geophysical Research E: Planets, 2019, 124, 528-584.	3.6	4
94	A martian case study of segmenting images automatically for granulometry and sedimentology, Part 2: Assessment. Icarus, 2014, 229, 408-417.	2.5	3
95	Curiosityâ€™s Mars Hand Lens Imager (MAHLI) Investigation. , 2012, , 259-317.		0