John A Grant

List of Publications by Year in descending order

115 papers	14,587 citations	25423 59 h-index	31191 106 g-index
124 all docs	124 docs citations	124 times ranked	6396 citing authors

#	Article	IF	Citations
1	Degradation at theInSightLanding Site,Homestead Hollow, Mars: Constraints From Rock Heights and Shapes. Earth and Space Science, 2022, 9, .	1.1	3
2	Orbital Observations of a Marker Horizon at Gale Crater. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	5
3	In Situ and Orbital Stratigraphic Characterization of the InSight Landing Siteâ€"A Type Example of a Regolithâ€Covered Lava Plain on Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	17
4	Clay sediments derived from fluvial activity in and around Ladon basin, Mars. Icarus, 2022, 384, 115090.	1.1	4
5	The Physical Properties and Geochemistry of Grains on Aeolian Bedforms at Gale Crater, Mars. Journal of Geophysical Research E: Planets, 2022, 127, .	1.5	9
6	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 2: Local Meteorology, Transport Dynamics, and Model Analysis. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006514.	1.5	19
7	The Global Distribution of Craters With Alluvial Fans and Deltas on Mars. Geophysical Research Letters, 2021, 48, e2020GL091653.	1.5	38
8	Vortexâ€Dominated Aeolian Activity at InSight's Landing Site, Part 1: Multiâ€Instrument Observations, Analysis, and Implications. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006757.	1.5	23
9	Soil Thermophysical Properties Near the InSight Lander Derived From 50 Sols of Radiometer Measurements. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006859.	1.5	22
10	In Situ Geochronology for the Next Decade: Mission Designs for the Moon, Mars, and Vesta. Planetary Science Journal, 2021, 2, 145.	1.5	6
11	Geology and Geochemistry of Noachian Bedrock and Alteration Events, Meridiani Planum, Mars: MER Opportunity Observations. Journal of Geophysical Research E: Planets, 2021, 126, e2021JE006915.	1.5	6
12	Rock Sizeâ€Frequency Distributions at the InSight Landing Site, Mars. Earth and Space Science, 2021, 8, .	1.1	12
13	Location and Setting of the Mars InSight Lander, Instruments, and Landing Site. Earth and Space Science, 2020, 7, e2020EA001248.	1.1	34
14	Crater Morphometry on the Mafic Floor Unit at Jezero Crater, Mars: Comparisons to a Known Basaltic Lava Plain at the InSight Landing Site. Geophysical Research Letters, 2020, 47, e2020GL089607.	1.5	11
15	Comparison of InSightHomesteadHollow to Hollows at the Spirit Landing Site. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006435.	1.5	10
16	An Impact Crater Origin for the InSight Landing Site at Homestead Hollow, Mars: Implications for Near Surface Stratigraphy, Surface Processes, and Erosion Rates. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006333.	1.5	24
17	Degradation of Homestead Hollow at the InSight Landing Site Based on the Distribution and Properties of Local Deposits. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006350.	1.5	20
18	Geology of the InSight landing site on Mars. Nature Communications, 2020, 11, 1014.	5.8	107

#	Article	IF	Citations
19	Initial results from the InSight mission on Mars. Nature Geoscience, 2020, 13, 183-189.	5.4	274
20	Evidence for Late Alluvial Activity in Gale Crater, Mars. Geophysical Research Letters, 2019, 46, 7287-7294.	1.5	24
21	Degradation of Endeavour Crater Based on Orbital and Roverâ€Based Observations in Combination With Landscape Evolution Modeling. Journal of Geophysical Research E: Planets, 2019, 124, 1472-1494.	1.5	3
22	GEOLOGY OF THE INSIGHT LANDING SITE, MARS. , 2019, , .		2
23	AN IMPACT ORIGIN FOR HOMESTEAD HOLLOW, THE LANDING LOCATION OF THE INSIGHT LANDER ON MARS. , 2019, , .		4
24	SURFACE ALTERATION FROM LANDING INSIGHT ON MARS AND ITS IMPLICATIONS FOR SHALLOW REGOLITH STRUCTURE. , 2019, , .		5
25	MODIFICATION OF HOMESTEAD HOLLOW AT THE INSIGHT LANDING SITE. , 2019, , .		1
26	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.	1.5	28
27	The nature and emplacement of distal aqueousâ€rich ejecta deposits from Hale crater, Mars. Meteoritics and Planetary Science, 2018, 53, 839-856.	0.7	6
28	The Nature and Origin of Deposits in Uzboi Vallis on Mars. Journal of Geophysical Research E: Planets, 2018, 123, 1842-1862.	1.5	4
29	Sand Grain Sizes and Shapes in Eolian Bedforms at Gale Crater, Mars. Geophysical Research Letters, 2018, 45, 9471-9479.	1.5	71
30	The science process for selecting the landing site for the 2020 Mars rover. Planetary and Space Science, 2018, 164, 106-126.	0.9	64
31	NOACHIAN-AGED PRE-IMPACT LITHOLOGY EXPOSED IN ENDEAVOUR CRATER RIM: MARS EXPLORATION ROVER OPPORTUNITY OBSERVATIONS. , 2018, , .		1
32	Quaternary history of the Kiseiba Oasis region, southern Egypt. Journal of African Earth Sciences, 2017, 136, 188-200.	0.9	5
33	Redox stratification of an ancient lake in Gale crater, Mars. Science, 2017, 356, .	6.0	209
34	Radar sounder evidence of thick, porous sediments in Meridiani Planum and implications for iceâ€filled deposits on Mars. Geophysical Research Letters, 2017, 44, 9208-9215.	1.5	12
35	A coldâ€wet middleâ€latitude environment on Mars during the Hesperianâ€Amazonian transition: Evidence from northern Arabia valleys and paleolakes. Journal of Geophysical Research E: Planets, 2016, 121, 1667-1694.	1.5	48
36	Amazonian chemical weathering rate derived from stony meteorite finds at Meridiani Planum on Mars. Nature Communications, 2016, 7, 13459.	5.8	11

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37	Large wind ripples on Mars: A record of atmospheric evolution. Science, 2016, 353, 55-58.	6.0	144
38	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.	1.5	37
39	Paleohydrology of Eberswalde crater, Mars. Geomorphology, 2015, 240, 83-101.	1.1	60
40	Deposition, exhumation, and paleoclimate of an ancient lake deposit, Gale crater, Mars. Science, 2015, 350, aac7575.	6.0	471
41	Gale crater and impact processes â€“ Curiosityâ€™s first 364 Sols on Mars. Icarus, 2015, 249, 108-128.	1.1	37
42	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1245267.	6.0	323
43	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1242777.	6.0	687
44	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1243480.	6.0	508
45	Marsâ€™ Surface Radiation Environment Measured with the Mars Science Laboratoryâ€™s Curiosity Rover. Science, 2014, 343, 1244797.	6.0	475
46	In Situ Radiometric and Exposure Age Dating of the Martian Surface. Science, 2014, 343, 1247166.	6.0	224
47	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. Science, 2014, 343, 1244734.	6.0	246
48	Terrain physical properties derived from orbital data and the first 360 sols of Mars Science Laboratory Curiosity rover observations in Gale Crater. Journal of Geophysical Research E: Planets, 2014, 119, 1322-1344.	1.5	43
49	The timing of alluvial activity in Gale crater, Mars. Geophysical Research Letters, 2014, 41, 1142-1149.	1.5	88
50	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. Science, 2013, 341, 1238932.	6.0	327
51	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. Science, 2013, 341, 1239505.	6.0	280
52	Gypsum, opal, and fluvial channels within a trough of Noctis Labyrinthus, Mars: Implications for aqueous activity during the Late Hesperian to Amazonian. Planetary and Space Science, 2013, 87, 130-145.	0.9	42
53	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. Science, 2013, 341, 263-266.	6.0	327
54	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. Science, 2013, 341, 1238937.	6.0	367

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55	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
56	Martian Fluvial Conglomerates at Gale Crater. Science, 2013, 340, 1068-1072.	6.0	326
57	The Petrochemistry of Jake_M: A Martian Mugearite. Science, 2013, 341, 1239463.	6.0	134
58	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. Science, 2013, 341, 1238670.	6.0	215
59	Ground penetrating radar geologic field studies of the ejecta of Barringer Meteorite Crater, Arizona, as a planetary analog. Journal of Geophysical Research E: Planets, 2013, 118, 1915-1933.	1.5	8
60	Selection of the Mars Science Laboratory Landing Site. Space Science Reviews, 2012, 170, 641-737.	3.7	216
61	A possible synoptic source of water for alluvial fan formation in southern Margaritifer Terra, Mars. Planetary and Space Science, 2012, 72, 44-52.	0.9	60
62	Widespread crater-related pitted materials on Mars: Further evidence for the role of target volatiles during the impact process. Icarus, 2012, 220, 348-368.	1.1	85
63	Ancient Impact and Aqueous Processes at Endeavour Crater, Mars. Science, 2012, 336, 570-576.	6.0	176
64	Selection of the Mars Science Laboratory Landing Site. , 2012, , 641-737.		10
65	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
66	Late alluvial fan formation in southern Margaritifer Terra, Mars. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	84
67	The science process for selecting the landing site for the 2011 Mars Science Laboratory. Planetary and Space Science, 2011, 59, 1114-1127.	0.9	68
68	Origin of the structure and planform of small impact craters in fractured targets: Endurance Crater at Meridiani Planum, Mars. Icarus, 2011, 211, 472-497.	1.1	27
69	A lake in Uzboi Vallis and implications for Late Noachianâ€“Early Hesperian climate on Mars. Icarus, 2011, 212, 110-122.	1.1	27
70	The High Resolution Imaging Science Experiment (HiRISE) during MROâ€™s Primary Science Phase (PSP). Icarus, 2010, 205, 2-37.	1.1	153
71	HiRISE views enigmatic deposits in the Sirenum Fossae region of Mars. Icarus, 2010, 205, 53-63.	1.1	24
72	Aqueous depositional settings in Holden crater, Mars. , 2010, , 323-346.		5

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73	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
74	The northern plains. , 2010, , 249-273.		14
75	Exploration of Victoria Crater by the Mars Rover Opportunity. Science, 2009, 324, 1058-1061.	6.0	141
76	An analysis of sinuous ridges in the southern Argyre Planitia, Mars using HiRISE and CTX images and MOLA data. Journal of Geophysical Research, 2009, 114, .	3.3	57
77	Large basin overflow floods on Mars. , 2009, , 209-224.		11
78	Hydrated silicate minerals on Mars observed by the Mars Reconnaissance Orbiter CRISM instrument. Nature, 2008, 454, 305-309.	13.7	630
79	Clay minerals in delta deposits and organic preservation potential on Mars. Nature Geoscience, 2008, 1, 355-358.	5.4	293
80	Structure, stratigraphy, and origin of Husband Hill, Columbia Hills, Gusev Crater, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	44
81	Lightâ€toned strata and inverted channels adjacent to Juventae and Ganges chasmata, Mars. Geophysical Research Letters, 2008, 35, .	1.5	49
82	Degradation of Victoria crater, Mars. Journal of Geophysical Research, 2008, 113, .	3.3	44
83	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
84	HiRISE imaging of impact megabreccia and sub-meter aqueous strata in Holden Crater, Mars. Geology, 2008, 36, 195.	2.0	105
85	A Closer Look at Water-Related Geologic Activity on Mars. Science, 2007, 317, 1706-1709.	6.0	185
86	Geomorphic and stratigraphic analysis of Crater Terby and layered deposits north of Hellas basin, Mars. Journal of Geophysical Research, 2007, 112, .	3.3	108
87	Mars Reconnaissance Orbiter's High Resolution Imaging Science Experiment (HiRISE). Journal of Geophysical Research, 2007, 112, .	3.3	1,253
88	Pyroclastic Activity at Home Plate in Gusev Crater, Mars. Science, 2007, 316, 738-742.	6.0	174
89	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
90	Crater gradation in Gusev crater and Meridiani Planum, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	63

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91	Spirit rover localization and topographic mapping at the landing site of Gusev crater, Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	36
92	Overview of the Spirit Mars Exploration Rover Mission to Gusev Crater: Landing site to Backstay Rock in the Columbia Hills. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	238
93	Geology of the Gusev cratered plains from the Spirit rover transverse. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	114
94	Distribution of rocks on the Gusev Plains and on Husband Hill, Mars. Geophysical Research Letters, 2006, 33, .	1.5	50
95	Erosion rates at the Mars Exploration Rover landing sites and long-term climate change on Mars. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	215
96	Water alteration of rocks and soils on Mars at the Spirit rover site in Gusev crater. Nature, 2005, 436, 66-69.	13.7	240
97	Assessment of Mars Exploration Rover landing site predictions. Nature, 2005, 436, 44-48.	13.7	101
98	Wind-Related Processes Detected by the Spirit Rover at Gusev Crater, Mars. Science, 2004, 305, 810-813.	6.0	94
99	Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater. Science, 2004, 305, 800-806.	6.0	153
100	Surficial Deposits at Gusev Crater Along Spirit Rover Traverses. Science, 2004, 305, 807-810.	6.0	82
101	Localization and Physical Properties Experiments Conducted by Spirit at Gusev Crater. Science, 2004, 305, 821-824.	6.0	166
102	The Spirit Rover's Athena Science Investigation at Gusev Crater, Mars. Science, 2004, 305, 794-799.	6.0	404
103	The Opportunity Rover's Athena Science Investigation at Meridiani Planum, Mars. Science, 2004, 306, 1698-1703.	6.0	507
104	Basaltic Rocks Analyzed by the Spirit Rover in Gusev Crater. Science, 2004, 305, 842-845.	6.0	244
105	Selecting landing sites for the 2003 Mars Exploration Rovers. Planetary and Space Science, 2004, 52, 11-21.	0.9	16
106	Documenting drainage evolution in Bir Kiseiba, southern Egypt: Constraints from ground-penetrating radar and implications for Mars. Journal of Geophysical Research, 2004, 109, .	3.3	14
107	Ground-penetrating radar as a tool for probing the shallow subsurface of Mars. Journal of Geophysical Research, 2003, 108, .	3.3	29
108	Selection of the Mars Exploration Rover landing sites. Journal of Geophysical Research, 2003, 108, .	3.3	155

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109	Drainage evolution in the Margaritifer Sinus region, Mars. Journal of Geophysical Research, 2002, 107, 4-1.	3.3	129
110	Valley formation in Margaritifer Sinus, Mars, by precipitation-recharged ground-water sapping. Geology, 2000, 28, 223.	2.0	86
111	Evaluating the evolution of process specific degradation signatures around impact craters. International Journal of Impact Engineering, 1999, 23, 331-340.	2.4	31
112	Gradation of the Roter Kamm impact crater, Namibia. Journal of Geophysical Research, 1997, 102, 16327-16338.	3.3	20
113	Degradation of selected terrestrial and Martian impact craters. Journal of Geophysical Research, 1993, 98, 11025-11042.	3.3	77
114	Erosion of ejecta at Meteor Crater, Arizona. Journal of Geophysical Research, 1993, 98, 15033-15047.	3.3	35
115	Gradational epochs on Mars: Evidence from West-Northwest of Isidis Basin and Electris. Icarus, 1990, 84, 166-195.	1.1	79