Noam R Izenberg

List of Publications by Year
in descending order

83 papers	5,530 citations	101543 36 h-index	102487 66 g-index
87 all docs	87 docs citations	87 times ranked	3824 citing authors

#	Article	IF	Citations
1	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on Mars Reconnaissance Orbiter (MRO). Journal of Geophysical Research, 2007, 112, .	3.3	796
2	Hydrated silicate minerals on Mars observed by the Mars Reconnaissance Orbiter CRISM instrument. Nature, 2008, 454, 305-309.	27.8	630
3	Impact craters and Venus resurfacing history. Journal of Geophysical Research, 1992, 97, 15923-15948.	3.3	303
4	NEAR at Eros: Imaging and Spectral Results. Science, 2000, 289, 2088-2097.	12.6	250
5	The landing of the NEAR-Shoemaker spacecraft on asteroid 433 Eros. Nature, 2001, 413, 390-393.	27.8	190
6	NEAR's Flyby of 253 Mathilde: Images of a C Asteroid. Science, 1997, 278, 2109-2114.	12.6	185
7	Eros: Shape, Topography, and Slope Processes. Icarus, 2002, 155, 18-37.	2.5	154
8	Imaging of Small-Scale Features on 433 Eros from NEAR: Evidence for a Complex Regolith. Science, 2001, 292, 484-488.	12.6	147
9	Hollows on Mercury: MESSENGER Evidence for Geologically Recent Volatile-Related Activity. Science, 2011, 333, 1856-1859.	12.6	136
10	NEAR Encounter with Asteroid 253 Mathilde: Overview. Icarus, 1999, 140, 3-16.	2.5	121
11	Impact History of Eros: Craters and Boulders. Icarus, 2002, 155, 104-118.	2.5	119
12	The MESSENGER mission to Mercury: scientific payload. Planetary and Space Science, 2001, 49, 1467-1479.	1.7	118
13	Satellite sensor requirements for monitoring essential biodiversity variables of coastal ecosystems. Ecological Applications, 2018, 28, 749-760.	3.8	116
14	Surface modification of Venus as inferred from Magellan observations of plains. Journal of Geophysical Research, 1992, 97, 13303-13317.	3.3	114
15	NEAR Infrared Spectrometer Photometry of Asteroid 433 Eros. Icarus, 2002, 155, 189-204.	2.5	113
16	Mercuryâ€™s Weather-Beaten Surface: Understanding Mercury in the Context of Lunar and Asteroidal Space Weathering Studies. Space Science Reviews, 2014, 181, 121-214.	8.1	108
17	Orbital multispectral mapping of Mercury with the MESSENGER Mercury Dual Imaging System: Evidence for the origins of plains units and low-reflectance material. Icarus, 2015, 254, 287-305.	2.5	95
18	Spectroscopic Observations of Mercury's Surface Reflectance During MESSENGER's First Mercury Flyby. Science, 2008, 321, 62-65.	12.6	94

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19	The composition of 433 Eros: A mineralogicalâ€”chemical synthesis. Meteoritics and Planetary Science, 2001, 36, 1661-1672.	1.6	93
20	Space weathering on Eros: Constraints from albedo and spectral measurements of Psyche crater. Meteoritics and Planetary Science, 2001, 36, 1617-1637.	1.6	89
21	MESSENGER Observations of Mercuryâ€™s Exosphere: Detection of Magnesium and Distribution of Constituents. Science, 2009, 324, 610-613.	12.6	83
22	Exposure of spectrally distinct material by impact craters on Mercury: Implications for global stratigraphy. Icarus, 2010, 209, 210-223.	2.5	82
23	The low-iron, reduced surface of Mercury as seen in spectral reflectance by MESSENGER. Icarus, 2014, 228, 364-374.	2.5	82
24	Global inventory and characterization of pyroclastic deposits on Mercury: New insights into pyroclastic activity from MESSENGER orbital data. Journal of Geophysical Research E: Planets, 2014, 119, 635-658.	3.6	79
25	Color Variations on Eros from NEAR Multispectral Imaging. Icarus, 2002, 155, 145-168.	2.5	78
26	Mercury's Exosphere: Observations During MESSENGER's First Mercury Flyby. Science, 2008, 321, 92-94.	12.6	77
27	Impact crater degradation on venusian plains. Geophysical Research Letters, 1994, 21, 289-292.	4.0	76
28	Ponded deposits on asteroid 433 Eros. Meteoritics and Planetary Science, 2002, 37, 1095-1105.	1.6	74
29	Near-IR Reflectance Spectroscopy of 433 Eros from the NIS Instrument on the NEAR Mission. Icarus, 2002, 155, 119-144.	2.5	70
30	Mercuryâ€™s Complex Exosphere: Results from MESSENGERâ€™s Third Flyby. Science, 2010, 329, 672-675.	12.6	70
31	Revealing the Mysteries of Venus: The DAVINCI Mission. Planetary Science Journal, 2022, 3, 117.	3.6	62
32	Imaging of Asteroid 433 Eros During NEAR's Flyby Reconnaissance. Science, 1999, 285, 562-564.	12.6	61
33	Evidence from MESSENGER for sulfurâ€•and carbonâ€•driven explosive volcanism on Mercury. Geophysical Research Letters, 2016, 43, 3653-3661.	4.0	57
34	Mineralogical interpretation of reflectance spectra of Eros from NEAR nearâ€•infrared spectrometer low phase flyby. Meteoritics and Planetary Science, 2001, 36, 1711-1726.	1.6	45
35	Mineralogical indicators of Mercury's hollows composition in MESSENGER color observations. Geophysical Research Letters, 2016, 43, 1450-1456.	4.0	42
36	Erosional and depositional patterns associated with the 1993 Missouri River floods inferred from SIR-C and TOPSAR radar data. Journal of Geophysical Research, 1996, 101, 23149-23167.	3.3	40

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37	Ejecta correlations with spatial crater density and Venus resurfacing history. Geophysical Research Letters, 1995, 22, 1517-1520.	4.0	37
38	Inflight Calibration of the NEAR Multispectral Imager. Icarus, 1999, 140, 66-91.	2.5	35
39	Whole-disk spectrophotometric properties of Mercury: Synthesis of MESSENGER and ground-based observations. Icarus, 2010, 209, 101-124.	2.5	35
40	Basalt Oxidation and the Formation of Hematite on the Surface of Venus. Icarus, 1995, 118, 373-383.	2.5	33
41	Spectral properties and geologic processes on Eros from combined NEAR NIS and MSI data sets. Meteoritics and Planetary Science, 2003, 38, 1053-1077.	1.6	33
42	Microwave Signatures and Surface Properties of Ovda Regio and Surroundings, Venus. Icarus, 1994, 112, 171-186.	2.5	26
43	A comparison of the ultraviolet to near-infrared spectral properties of Mercury and the Moon as observed by MESSENGER. Icarus, 2010, 209, 179-194.	2.5	26
44	Radiative transfer modeling of MESSENGER VIRS spectra: Detection and mapping of submicroscopic iron and carbon. Icarus, 2017, 293, 206-217.	2.5	24
45	Inflight Calibration of the NEAR Multispectral Imager. Icarus, 2002, 155, 229-243.	2.5	20
46	Detection of Temperature-Dependent Spectral Variation on the Asteroid Eros and New Evidence for the Presence of an Olivine-Rich Silicate Assemblage. Icarus, 2002, 155, 181-188.	2.5	20
47	CRISM (Compact Reconnaissance Imaging Spectrometer for Mars) on MRO (Mars Reconnaissance) Tj ETQq1 1 0.784314 rgBT /Overlo		18
48	The Fundamental Connections between the Solar System and Exoplanetary Science. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006643.	3.6	15
49	How dielectric breakdown may contribute to the global weathering of regolith on the moon. Icarus, 2019, 319, 785-794.	2.5	14
50	Astrobiological molecularly imprinted polymer sensors. Planetary and Space Science, 2009, 57, 846-853.	1.7	13
51	Habitability Models for Astrobiology. Astrobiology, 2021, 21, 1017-1027.	3.0	13
52	Parker Solar Probe Imaging of the Night Side of Venus. Geophysical Research Letters, 2022, 49, .	4.0	12
53	Comment on â€œThe global resurfacing of Venusâ€•by R. G. Strom, G. G. Schaber, and D. D. Dawson. Journal of Geophysical Research, 1995, 100, 23355.	3.3	11
54	In-Flight Calibration of the Near Earth Asteroid Rendezvous Mission's Near Infrared Spectrometer I. Initial Calibrations. Icarus, 2000, 148, 550-571.	2.5	11

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55	Shallow crustal composition of Mercury as revealed by spectral properties and geological units of two impact craters. Planetary and Space Science, 2015, 119, 250-263.	1.7	11
56	Spectral Reflectance Constraints on the Composition and Evolution of Mercuryâ€™s Surface. , 2018, , 191-216.		9
57	Hierarchical Bayesian Atmospheric Retrieval Modeling for Population Studies of Exoplanet Atmospheres: A Case Study on the Habitable Zone. Astronomical Journal, 2022, 163, 140.	4.7	9
58	Transmission Spectroscopy of the Earthâ€“Sun System to Inform the Search for Extrasolar Life. Planetary Science Journal, 2021, 2, 140.	3.6	8
59	Analysis of the MESSENGER MASCS photometric targets part I: Photometric standardization for examining spectral variability across Mercury's surface. Icarus, 2019, 319, 247-263.	2.5	6
60	A Geologically Robust Procedure for Observing Rocky Exoplanets to Ensure that Detection of Atmospheric Oxygen Is a Modern Earth-like Biosignature. Astrophysical Journal Letters, 2020, 898, L17.	8.3	5
61	Retrieving Exoplanet Atmospheres Using Planetary Infrared Excess: Prospects for the Night Side of WASP-43 b and Other Hot Jupiters. Astrophysical Journal Letters, 2021, 921, L4.	8.3	5
62	NEAR swings by Earth en route to eros. Eos, 1998, 79, 289-289.	0.1	4
63	Venus Exploration in the New Human Spaceflight Age. Acta Astronautica, 2021, 180, 100-104.	3.2	4
64	Triton Haze Analogs: The Role of Carbon Monoxide in Haze Formation. Journal of Geophysical Research E: Planets, 2022, 127, .	3.6	4
65	Analysis of the MESSENGER MASCS photometric targets part II: Photometric variability between geomorphological units. Icarus, 2019, 319, 140-246.	2.5	3
66	Habitability Models for Planetary Sciences. , 2021, 53, .		3
67	Selected configuration tradeoffs of contour optical instruments. Acta Astronautica, 2003, 52, 111-116.	3.2	2
68	Compact reconnaissance imaging spectrometer for Mars (CRISM): characterization results for instrument and focal plane subsystems. , 2004, , .		2
69	Visible to near-infrared hyperspectral measurements of mercury: Challenges for deciphering surface mineralogy. , 2014, , .		2
70	Science Goals and Mission Concept for a Landed Investigation of Mercury. Planetary Science Journal, 2022, 3, 68.	3.6	2
71	CONTOUR forward imager on the Comet Nucleus Tour mission. , 2004, , .		1
72	Hot Times at Mercury: Mission Operations for the Mercury Atmospheric and Surface Composition Spectrometer on MESSENGER. , 2012, , .		1

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73	A spaceborne visible-NIR hyperspectral imager for coastal phenology. Proceedings of SPIE, 2016, , .	0.8	1
74	Looking Back is Looking Forward: The Need for Retrospective Solar System Observations in Advance of Exoplanet Retrievals. , 2021, 53, .		1
75	Venus Surface Platforms. , 2021, 53, .		1
76	The CONTOUR remote imager and spectrograph. Acta Astronautica, 2003, 52, 427-431.	3.2	0
77	The CONTOUR remote imager and spectrometer (CRISP). , 2004, 5163, 84.		0
78	Prometheus's Challenge: Scheduling MASCS Observations Using SciBox for Orbital Operations at Mercury. , 2010, , .		0
79	Spectral Analyses of Mercury. , 2019, , 351-367.		0
80	Hopper Missions to Triton and Pluto using a Vehicle with In-Situ Refueling. , 2021, 53, .		0
81	The Venus Life Equation. , 2021, 53, .		0
82	In Situ Exploration of Venusâ€™ Clouds by Dynamic Soaring. , 2021, 53, .		0
83	Future Exploration of Venus: International Coordination and Collaborations. , 2021, 53, .		0