Steven A Hauck Ii

List of Publications by Year
in descending order

59	5,386	117625	206112
papers	citations	34 h-index	48 g-index

60	60	60	3251
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Global Topography of Mars and Implications for Surface Evolution. Science, 1999, 284, 1495-1503.	12.6	826
2	Ancient Geodynamics and Global-Scale Hydrology on Mars. Science, 2001, 291, 2587-2591.	12.6	453
3	Gravity Field and Internal Structure of Mercury from MESSENGER. Science, 2012, 336, 214-217.	12.6	305
4	A Reappraisal of The Habitability of Planets around M Dwarf Stars. Astrobiology, 2007, 7, 30-65.	3.0	286
5	New Perspectives on Ancient Mars. Science, 2005, 307, 1214-1220.	12.6	265
6	Thermal and crustal evolution of Mars. Journal of Geophysical Research, 2002, 107, 6-1.	3.3	262
7	Radioactive Elements on Mercuryâ€™s Surface from MESSENGER: Implications for the Planetâ€™s Formation and Evolution. Science, 2011, 333, 1850-1852.	12.6	233
8	Topography of the Northern Hemisphere of Mercury from MESSENGER Laser Altimetry. Science, 2012, 336, 217-220.	12.6	223
9	The curious case of Mercury's internal structure. Journal of Geophysical Research E: Planets, 2013, 118, 1204-1220.	3.6	210
10	Mercuryâ€™s global contraction much greater than earlier estimates. Nature Geoscience, 2014, 7, 301-307.	12.9	181
11	Evidence for geochemical terranes on Mercury: Global mapping of major elements with MESSENGER's X-Ray Spectrometer. Earth and Planetary Science Letters, 2015, 416, 109-120.	4.4	167
12	Internal and tectonic evolution of Mercury. Earth and Planetary Science Letters, 2004, 222, 713-728.	4.4	163
13	The tectonics of Mercury: The view after MESSENGER's first flyby. Earth and Planetary Science Letters, 2009, 285, 283-296.	4.4	135
14	The redox state, FeO content, and origin of sulfurâ€rich magmas on Mercury. Journal of Geophysical Research E: Planets, 2013, 118, 138-146.	3.6	112
15	Nonâ€ideal liquidus curve in the Feâ€S system and Mercury's snowing core. Geophysical Research Letters, 2008, 35, .	4.0	111
16	Mercury's moment of inertia from spin and gravity data. Journal of Geophysical Research, 2012, 117, .	3.3	98
17	Sulfur's impact on core evolution and magnetic field generation on Ganymede. Journal of Geophysical Research, 2006, 111, .	3.3	96
18	Venus: Crater distribution and plains resurfacing models. Journal of Geophysical Research, 1998, 103, 13635-13642.	3.3	94

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19	Low-altitude magnetic field measurements by MESSENGER reveal Mercuryâ€™s ancient crustal field. Science, 2015, 348, 892-895.	12.6	89
20	Magnesiumâ€rich crustal compositions on Mercury: Implications for magmatism from petrologic modeling. Journal of Geophysical Research, 2012, 117, .	3.3	83
21	Geodetic Evidence That Mercury Has A Solid Inner Core. Geophysical Research Letters, 2019, 46, 3625-3633.	4.0	80
22	Interior Evolution of Mercury. Space Science Reviews, 2007, 132, 229-260.	8.1	71
23	Iron snow zones as a mechanism for generating Mercury's weak observed magnetic field. Journal of Geophysical Research, 2010, 115, .	3.3	69
24	Thermal evolution of Mercury as constrained by MESSENGER observations. Journal of Geophysical Research E: Planets, 2013, 118, 1033-1044.	3.6	63
25	Strikeâ€slip faults on Mars: Observations and implications for global tectonics and geodynamics. Journal of Geophysical Research, 2008, 113, .	3.3	62
26	Climate and interior coupled evolution on Venus. Geophysical Research Letters, 2001, 28, 1779-1782.	4.0	53
27	MESSENGER observations of induced magnetic fields in Mercury's core. Geophysical Research Letters, 2016, 43, 2436-2444.	4.0	51
28	Laser Altimeter Observations from MESSENGER's First Mercury Flyby. Science, 2008, 321, 77-79.	12.6	44
29	The equatorial shape and gravity field of Mercury from MESSENGER flybys 1 and 2. Icarus, 2010, 209, 88-100.	2.5	43
30	The tides of Mercury and possible implications for its interior structure. Journal of Geophysical Research E: Planets, 2014, 119, 850-866.	3.6	43
31	Despinning plus global contraction and the orientation of lobate scarps on Mercury: Predictions for MESSENGER. Icarus, 2008, 198, 274-276.	2.5	38
32	Variable conductivity: Effects on the thermal structure of subducting slabs. Geophysical Research Letters, 1999, 26, 3257-3260.	4.0	37
33	The lowâ€degree shape of Mercury. Geophysical Research Letters, 2015, 42, 6951-6958.	4.0	36
34	Lithospheric structure and tectonics at Isidis Planitia, Mars. Icarus, 2009, 201, 528-539.	2.5	34
35	Earth's inner core nucleation paradox. Earth and Planetary Science Letters, 2018, 487, 9-20.	4.4	31
36	Accommodation of lithospheric shortening on Mercury from altimetric profiles of ridges and lobate scarps measured during MESSENGER flybys 1 and 2. Icarus, 2010, 209, 247-255.	2.5	29

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37	Distribution of largeâ€scale contractional tectonic landforms on Mercury: Implications for the origin of global stresses. Geophysical Research Letters, 2015, 42, 3755-3763.	4.0	29
38	Predicted recovery of Mercury's internal structure by MESSENGER. Geophysical Research Letters, 2007, 34, .	4.0	27
39	The Geophysics of Mercury: Current Status and Anticipated Insights from the MESSENGER Mission. Space Science Reviews, 2007, 131, 105-132.	8.1	27
40	Consequences of a solid inner core on Mercuryâ€™s spin configuration. Icarus, 2016, 264, 443-455.	2.5	27
41	Mercuryâ€™s Internal Structure. , 2018, , 85-113.		26
42	Effect of coreâ€“mantle and tidal torques on Mercuryâ€™s spin axis orientation. Icarus, 2014, 231, 206-220.	2.5	18
43	On the origin of mascon basins on the Moon (and beyond). Geophysical Research Letters, 2013, 40, 28-32.	4.0	17
44	A whole new Mercury: MESSENGER reveals a dynamic planet at the last frontier of the inner solar system. Journal of Geophysical Research E: Planets, 2016, 121, 2349-2362.	3.6	13
45	Mercuryâ€™s Global Evolution. , 2018, , 516-543.		8
46	Sharing Planetary Science in Plain Language. Journal of Geophysical Research E: Planets, 2019, 124, 2462-2464.	3.6	7
47	Mercury: Inside the Iron Planet. Elements, 2019, 15, 21-26.	0.5	6
48	The 2015 peer reviewer appreciation. Journal of Geophysical Research E: Planets, 2016, 121, 108-110.	3.6	2
49	Science Goals and Mission Concept for a Landed Investigation of Mercury. Planetary Science Journal, 2022, 3, 68.	3.6	2
50	Interior Evolution of Mercury. Space Sciences Series of ISSI, 2008, , 47-78.	0.0	1
51	Introduction to the special issue of Icarus on â€œMercury after Two MESSENGER Flybysâ€• Icarus, 2010, 209, 1-2.	2.5	0
52	Appreciation of Peer Reviewers for 2014. Journal of Geophysical Research E: Planets, 2015, 120, 359-361.	3.6	0
53	Twenty five years of planetary science: Discoveries and new questions. Journal of Geophysical Research E: Planets, 2016, 121, 1829-1830.	3.6	0
54	Thank you to our 2016 peer reviewers. Journal of Geophysical Research E: Planets, 2017, 122, 292-294.	3.6	0

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55	Thank You to Our 2017 Peer Reviewers. Journal of Geophysical Research E: Planets, 2018, 123, 319-321.	3.6	0
56	Thank You to Our 2018 Peer Reviewers. Journal of Geophysical Research E: Planets, 2019, 124, 867-870.	3.6	0
57	In Appreciation of Our 2019 Peer Reviewers. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006420.	3.6	0
58	The case for landed Mercury science. Experimental Astronomy, 0, , 1.	3.7	0
59	The Geophysics of Mercury: Current Status and Anticipated Insights from the MESSENGER Mission. , 2007, , 105-132.		0