Ashley G Davies

List of Publications by Year
in descending order

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Version: 2024-02-01

89 papers	2,790 citations	172207 29 h-index	214527 47 g-index
91 all docs	91 docs citations	91 times ranked	1436 citing authors

#	Article	IF	Citations
1	Cautionary Analysis of Spectral Radiance from Ioâ€™s Active Volcanoes Derived from Galileo Near-Infrared Mapping Spectrometer Data. Astronomical Journal, 2022, 163, 2.	1.9	1
2	Reply to the â€˜Comment on Cage occupancy of methane clathrate hydrates in the ternary H₂Oâ€“NH₃â€“CH₄ systemâ€™ by S. Alavi and J. Ripmeester, Chem. Commun., 2022, 58, DOI: 10.1039/D1CC06526B. Chemical Communications, 2022, 58, 4099-4102.	2.2	1
3	A 2020 Observational Perspective of Io. Annual Review of Earth and Planetary Sciences, 2021, 49, 643-678.	4.6	15
4	Resolving Ioâ€™s Volcanoes from a Mutual Event Observation at the Large Binocular Telescope. Planetary Science Journal, 2021, 2, 227.	1.5	5
5	Advanced Pointing Imaging Camera (APIC) for planetary science and mission opportunities. Planetary and Space Science, 2020, 194, 105095.	0.9	10
6	Cage occupancy of methane clathrate hydrates in the ternary H2Oâ€“NH3â€“CH4 system. Chemical Communications, 2020, 56, 12391-12394.	2.2	4
7	Phase Behavior of Clathrate Hydrates in the Ternary H₂Oâ€“NH₃â€“Cyclopentane System. ACS Earth and Space Chemistry, 2020, 4, 526-534.	1.2	6
8	Automated Volcano Monitoring Using Multiple Space and Ground Sensors. Journal of Aerospace Information Systems, 2020, 17, 214-228.	1.0	14
9	Nature, distribution and origin of CO2 on Enceladus. Icarus, 2019, 317, 491-508.	1.1	14
10	Ioâ€™s Volcanic Activity from Time Domain Adaptive Optics Observations: 2013â€“2018. Astronomical Journal, 2019, 158, 29.	1.9	32
11	Discovery of a Powerful, Transient, Explosive Thermal Event at Marduk Fluctus, Io, in Galileo NIMS Data. Geophysical Research Letters, 2018, 45, 2926-2933.	1.5	13
12	Enceladusâ€™ near-surface CO2 gas pockets and surface frost deposits. Icarus, 2018, 302, 18-26.	1.1	8
13	Variability and geologic associations of volcanic activity on Io in 2001â€“2016. Icarus, 2018, 312, 267-294.	1.1	19
14	Multi-phase volcanic resurfacing at Loki Patera on Io. Nature, 2017, 545, 199-202.	13.7	26
15	A novel technology for measuring the eruption temperature of silicate lavas with remote sensing: Application to Io and other planets. Journal of Volcanology and Geothermal Research, 2017, 343, 1-16.	0.8	6
16	Magmatic gas percolation through the old lava dome of El Misti volcano. Bulletin of Volcanology, 2017, 79, 46.	1.1	18
17	Two Small Transiting Planets and a Possible Third Body Orbiting HD 106315. Astronomical Journal, 2017, 153, 255.	1.9	51
18	Three decades of Loki Patera observations. Icarus, 2017, 297, 265-281.	1.1	19

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19	Determination of eruption temperature of Io's lavas using lava tube skylights. Icarus, 2016, 278, 266-278.	1.1	7
20	Cryolava flow destabilization of crustal methane clathrate hydrate on Titan. Icarus, 2016, 274, 23-32.	1.1	9
21	Keck observations of eruptions on Io in 2003â€“2005. Icarus, 2016, 274, 284-296.	1.1	12
22	Io: Eruptions at Pillan, and the time evolution of Pele and Pillan from 1996 to 2015. Icarus, 2016, 264, 198-212.	1.1	15
23	The NASA Volcano Sensor Web, advanced autonomy and the remote sensing of volcanic eruptions: a review. Geological Society Special Publication, 2016, 426, 137-158.	0.8	10
24	Map of Ioâ€™s volcanic heat flow. Icarus, 2015, 262, 67-78.	1.1	25
25	Io: Heat flow from small volcanic features. Icarus, 2015, 245, 379-410.	1.1	30
26	Shield Volcano (Io). , 2015, , 1929-1933.		0
27	Eruptive Center (Io). , 2015, , 714-720.		0
28	Eruptive Center (Io). , 2014, , 1-8.		0
29	Near-infrared monitoring of Io and detection of a violent outburst on 29 August 2013. Icarus, 2014, 242, 352-364.	1.1	31
30	Two new, rare, high-effusion outburst eruptions at Rarog and Heno Paterae on Io. Icarus, 2014, 242, 365-378.	1.1	24
31	Global near-IR maps from Gemini-N and Keck in 2010, with a special focus on Janus Patera and Kanehekili Fluctus. Icarus, 2014, 242, 379-395.	1.1	23
32	Shield Volcano (Io). , 2014, , 1-6.		0
33	Near-vertical supersonic and shock-free gas/magma flow at ionian volcanoes: Application to Pillan. Icarus, 2013, 226, 1171-1176.	1.1	1
34	Onboard Product Generation on Earth Observing One: A Pathfinder for the Proposed Hyspiri Mission Intelligent Payload Module. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 257-264.	2.3	12
35	Observing Iceland's EyjafjallajÃ¶kull 2010 eruptions with the autonomous NASA Volcano Sensor Web. Journal of Geophysical Research: Solid Earth, 2013, 118, 1936-1956.	1.4	12
36	Automatic estimation of volcanic ash plume height using WorldView-2 imagery. , 2012, , .		1

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37	Io: Charting thermal emission variability with the Galileo NIMS Io Thermal Emission Database (NITED): Loki Patera. Geophysical Research Letters, 2012, 39, .	1.5	21
38	Charting thermal emission variability at Pele, Janus Patera and Kanehekili Fluctus with the Galileo NIMS Io Thermal Emission Database (NITED). Icarus, 2012, 221, 466-470.	1.1	17
39	Enceladus: A hypothesis for bringing both heat and chemicals to the surface. Icarus, 2012, 221, 53-62.	1.1	46
40	Io: Volcanic thermal sources and global heat flow. Icarus, 2012, 219, 701-722.	1.1	77
41	Estimating eruption temperature from thermal emission spectra of lava fountain activity in the Erta'Ale (Ethiopia) volcano lava lake: Implications for observing Io's volcanoes. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	22
42	The variability of volcanic activity at Zamama, Culann, and Tupan Patera on Io as seen by the Galileo Near Infrared Mapping Spectrometer. Icarus, 2011, 215, 401-416.	1.1	20
43	Io: Heat flow from dark paterae. Icarus, 2011, 212, 236-261.	1.1	29
44	The geothermal gradient of Io: Consequences for lithosphere structure and volcanic eruptive activity. Icarus, 2011, 211, 623-635.	1.1	23
45	Space-based Sensorweb monitoring of wildfires in Thailand. , 2011, , .		10
46	Exploring the limits of identifying sub-pixel thermal features using ASTER TIR data. Journal of Volcanology and Geothermal Research, 2010, 189, 225-237.	0.8	36
47	The thermal signature of volcanic eruptions on Io and Earth. Journal of Volcanology and Geothermal Research, 2010, 194, 75-99.	0.8	38
48	Atmospheric control of the cooling rate of impact melts and cryolavas on Titanâ€™s surface. Icarus, 2010, 208, 887-895.	1.1	14
49	Onboard processing of multispectral and hyperspectral data of volcanic activity for future Earth-orbiting and planetary missions. , 2010, , .		1
50	Optimized Autonomous Space In-Situ Sensor Web for Volcano Monitoring. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2010, 3, 541-546.	2.3	20
51	Onboard instrument processing concepts for the HyspIRI mission. , 2010, , .		1
52	Cooling rate of some active lavas determined using an orbital imaging spectrometer. Journal of Geophysical Research, 2010, 115, .	3.3	30
53	Autonomous Sensorweb Operations for Integrated Space In Situ Monitoring of Volcanic Activity. , 2010, , .		0
54	Volcanic history, geologic analysis and map of the Prometheus Patera region on Io. Journal of Volcanology and Geothermal Research, 2009, 187, 93-105.	0.8	14

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55	Io: Heat flow from dark volcanic fields. Icarus, 2009, 204, 239-253.	1.1	25
56	Onboard classification of hyperspectral data on the Earth Observing One mission. , 2009, , .		1
57	Onboard Science Processing Concepts for the HyspIRI Mission. IEEE Intelligent Systems, 2009, 24, 12-19.	4.0	24
58	Recent geological and hydrological activity on Mars: The Tharsis/Elysium corridor. Planetary and Space Science, 2008, 56, 985-1013.	0.9	92
59	Multi-instrument remote and in situ observations of the Erebus Volcano (Antarctica) lava lake in 2005: A comparison with the Pele lava lake on the jovian moon Io. Journal of Volcanology and Geothermal Research, 2008, 177, 705-724.	0.8	44
60	Sensor Web operations: Rapid data acquisition and product generation during a volcanic crisis. , 2008, , .		0
61	Rapid Response to Volcanic Eruptions with an Autonomous Sensor Web: The Nyamulagira Eruption of 2006. , 2008, , .		6
62	New estimates for Io eruption temperatures: Implications for the interior. Icarus, 2007, 192, 491-502.	1.1	81
63	Sensor web enables rapid response to volcanic activity. Eos, 2006, 87, 1.	0.1	37
64	Io: Loki Patera as a magma sea. Journal of Geophysical Research, 2006, 111, .	3.3	48
65	The heartbeat of the volcano: The discovery of episodic activity at Prometheus on Io. Icarus, 2006, 184, 460-477.	1.1	29
66	Linking satellites via Earth hot spots and the Internet to form ad hoc constellations. , 2005, 5659, 301.		0
67	<title>Real-time decision making on EO-1 using onboard science analysis</title>. , 2005, 5657, 47.		1
68	Post-solidification cooling and the age of Io's lava flows. Icarus, 2005, 176, 123-137.	1.1	22
69	Volcanic activity at Tvashtar Catena, Io. Icarus, 2005, 179, 235-251.	1.1	38
70	Keck AO observations of Io in and out of eclipse. Icarus, 2004, 169, 250-263.	1.1	53
71	Observations and temperatures of Io's Pele Patera from Cassini and Galileo spacecraft images. Icarus, 2004, 169, 65-79.	1.1	58
72	The polar contribution to the heat flow of Io. Icarus, 2004, 169, 264-270.	1.1	40

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73	Volcanism on Io: Estimation of eruption parameters from Galileo NIMS data. Journal of Geophysical Research, 2003, 108, .	3.3	34
74	Extreme volcanism on Io: Latest insights at the end of Galileo era. Eos, 2003, 84, 313.	0.1	21
75	Temperature, age and crust thickness distributions of Loki Patera on Io fromGalileoNIMS data: Implications for resurfacing mechanism. Geophysical Research Letters, 2003, 30, .	1.5	39
76	Loki, Io: A periodic volcano. Geophysical Research Letters, 2002, 29, 84-1-84-4.	1.5	73
77	The summer 1997 eruption at Pillan Patera on Io: Implications for ultrabasic lava flow emplacement. Journal of Geophysical Research, 2001, 106, 33105-33119.	3.3	60
78	Evaluation of sulfur flow emplacement on Io from Galileo data and numerical modeling. Journal of Geophysical Research, 2001, 106, 33161-33174.	3.3	47
79	Thermal signature, eruption style, and eruption evolution at Pele and Pillan on Io. Journal of Geophysical Research, 2001, 106, 33079-33103.	3.3	121
80	Upper bound on Io's heat flow. Journal of Geophysical Research, 2001, 106, 33021-33024.	3.3	16
81	Io in the near infrared: Near-Infrared Mapping Spectrometer (NIMS) results from the Galileo flybys in 1999 and 2000. Journal of Geophysical Research, 2001, 106, 33053-33078.	3.3	185
82	Silicate Cooling Model Fits to Galileo NIMS Data of Volcanism on Io. Icarus, 2000, 148, 211-225.	1.1	43
83	A Close-Up Look at Io from Galileo's Near-Infrared Mapping Spectrometer. Science, 2000, 288, 1201-1204.	6.0	86
84	High-Temperature Silicate Volcanism on Jupiter's Moon Io. , 1998, 281, 87-90.		198
85	The distribution of sulfur dioxide and other infrared absorbers on the surface of Io. Geophysical Research Letters, 1997, 24, 2479-2482.	1.5	92
86	Hot spots on Io: Initial results from Galileo's near infrared mapping spectrometer. Geophysical Research Letters, 1997, 24, 2439-2442.	1.5	53
87	Geology and topography of Ra Patera, Io, in the Voyager era: Prelude to eruption. Geophysical Research Letters, 1997, 24, 2467-2470.	1.5	26
88	Io's Volcanism: Thermo-Physical Models of Silicate Lava Compared with Observations of Thermal Emission. Icarus, 1996, 124, 45-61.	1.1	101
89	Stealth plumes on Io. Geophysical Research Letters, 1995, 22, 3293-3296.	1.5	67