Andrew John Samuel McGonigle

List of Publications by Year
in descending order

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79	3,645	117625 34	138484 58
papers	citations	h-index	g-index

82	82	82	2755
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Image Correction and In Situ Spectral Calibration for Low-Cost, Smartphone Hyperspectral Imaging. Remote Sensing, 2022, 14, 1152.	4.0	7
2	High-Resolution Hyperspectral Imaging Using Low-Cost Components: Application within Environmental Monitoring Scenarios. Sensors, 2022, 22, 4652.	3.8	17
3	Volatile metal emissions from volcanic degassing and lavaâ€“seawater interactions at KÄ«lauea Volcano, Hawaiâ€™i. Communications Earth & Environment, 2021, 2, .	6.8	25
4	Low-Cost Hyperspectral Imaging with A Smartphone. Journal of Imaging, 2021, 7, 136.	3.0	17
5	Ultraviolet Camera Measurements of Passive and Explosive (Strombolian) Sulphur Dioxide Emissions at Yasur Volcano, Vanuatu. Remote Sensing, 2020, 12, 2703.	4.0	5
6	Low-Cost Hyperspectral Imaging System: Design and Testing for Laboratory-Based Environmental Applications. Sensors, 2020, 20, 3293.	3.8	26
7	First Measurements of Gas Flux with a Low-Cost Smartphone Sensor-Based UV Camera on the Volcanoes of Northern Chile. Remote Sensing, 2020, 12, 2122.	4.0	5
8	Glacier algae accelerate melt rates on the south-western Greenland Ice Sheet. Cryosphere, 2020, 14, 309-330.	3.9	78
9	Hyperspectral Imaging in Environmental Monitoring: A Review of Recent Developments and Technological Advances in Compact Field Deployable Systems. Sensors, 2019, 19, 3071.	3.8	158
10	Measuring and Visualizing Solar UV for a Wide Range of Atmospheric Conditions on Hawaiâ€™i Island. International Journal of Environmental Research and Public Health, 2019, 16, 997.	2.6	3
11	The PiSpec: A Low-Cost, 3D-Printed Spectrometer for Measuring Volcanic SO2 Emission Rates. Frontiers in Earth Science, 2019, 7, .	1.8	12
12	A Rapidly Convecting Lava Lake at Masaya Volcano, Nicaragua. Frontiers in Earth Science, 2019, 6, .	1.8	19
13	Dynamics of Outgassing and Plume Transport Revealed by Proximal Unmanned Aerial System (UAS) Measurements at VolcÁ¡n Villarrica, Chile. Geochemistry, Geophysics, Geosystems, 2019, 20, 730-750.	2.5	41
14	Degassing at Sabancaya volcano measured by UV cameras and the NOVAC network. Volcanica, 2019, 2, 239-252.	1.8	18
15	Smartphone Spectrometers. Sensors, 2018, 18, 223.	3.8	107
16	Thermal Imaging Metrology with a Smartphone Sensor. Sensors, 2018, 18, 2169.	3.8	8
17	Combining Spherical-Cap and Taylor Bubble Fluid Dynamics with Plume Measurements to Characterize Basaltic Degassing. Geosciences (Switzerland), 2018, 8, 42.	2.2	23
18	Volcanic Plumes: Impacts on the Atmosphere and Insights into Volcanic Processes. Geosciences (Switzerland), 2018, 8, 158.	2.2	0

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19	The Development of a Low-Cost, Near Infrared, High-Temperature Thermal Imaging System and Its Application to the Retrieval of Accurate Lava Lake Temperatures at Masaya Volcano, Nicaragua. Remote Sensing, 2018, 10, 450.	4.0	15
20	Low-cost 3D printed 1â€‰â€‰nm resolution smartphone sensor-based spectrometer: instrument design and application in ultraviolet spectroscopy. Optics Letters, 2017, 42, 4323.	3.3	51
21	A Low-Cost Smartphone Sensor-Based UV Camera for Volcanic SO2 Emission Measurements. Remote Sensing, 2017, 9, 27.	4.0	41
22	A Novel and Inexpensive Method for Measuring Volcanic Plume Water Fluxes at High Temporal Resolution. Remote Sensing, 2017, 9, 146.	4.0	7
23	Reply to Kern, C. The Difficulty of Measuring the Absorption of Scattered Sunlight by H2O and CO2 in Volcanic Plumes: A Comment on Pering, et al. â€œA Novel and Inexpensive Method for Measuring Volcanic Plume Water Fluxes at High Temporal Resolutionâ€, Remote Sens. 2017, 9, 146. Remote Sensing, 2017, 9, 1040.	4.0	0
24	Ultraviolet Imaging of Volcanic Plumes: A New Paradigm in Volcanology. Geosciences (Switzerland), 2017, 7, 68.	2.2	34
25	Ultraviolet Imaging with Low Cost Smartphone Sensors: Development and Application of a Raspberry Pi-Based UV Camera. Sensors, 2016, 16, 1649.	3.8	67
26	Conduit dynamics and post explosion degassing on Stromboli: A combined UV camera and numerical modeling treatment. Geophysical Research Letters, 2016, 43, 5009-5016.	4.0	21
27	Dynamics of mild strombolian activity on Mt. Etna. Journal of Volcanology and Geothermal Research, 2015, 300, 103-111.	2.1	26
28	Correlation of oscillatory behaviour in Matlab using wavelets. Computers and Geosciences, 2014, 70, 206-212.	4.2	22
29	High time resolution fluctuations in volcanic carbon dioxide degassing from Mount Etna. Journal of Volcanology and Geothermal Research, 2014, 270, 115-121.	2.1	40
30	Periodic volcanic degassing behavior: The Mount Etna example. Geophysical Research Letters, 2013, 40, 4818-4822.	4.0	53
31	First volatile inventory for Gorely volcano, Kamchatka. Geophysical Research Letters, 2012, 39, .	4.0	52
32	Passive vs. active degassing modes at an open-vent volcano (Stromboli, Italy). Earth and Planetary Science Letters, 2012, 359-360, 106-116.	4.4	80
33	UVolc: A software platform for measuring volcanic SO2 fluxes. Computers and Geosciences, 2012, 40, 194-199.	4.2	3
34	UV camera measurements of fumarole field degassing (La Fossa crater, Vulcano Island). Journal of Volcanology and Geothermal Research, 2011, 199, 47-52.	2.1	41
35	Recent advances in ground-based ultraviolet remote sensing of volcanic SO2 fluxes. Annals of Geophysics, 2011, 54, .	1.0	7
36	Vulcamera: a program for measuring volcanic SO2 using UV cameras. Annals of Geophysics, 2011, 54, .	1.0	9

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37	Protocols for UV camera volcanic SO2 measurements. Journal of Volcanology and Geothermal Research, 2010, 194, 55-60.	2.1	83
38	Ozone depletion in tropospheric volcanic plumes. Geophysical Research Letters, 2010, 37, .	4.0	37
39	Influence of sources and meteorology on surface concentrations of gases and aerosols in a coastal industrial complex. Journal of the Brazilian Chemical Society, 2009, 20, 214-221.	0.6	7
40	Comparison of Low Cost Miniature Spectrometers for Volcanic SO2 Emission Measurements. Sensors, 2009, 9, 3256-3268.	3.8	19
41	Spectroscopic capture of 1 Hz volcanic SO₂ fluxes and integration with volcano geophysical data. Geophysical Research Letters, 2009, 36, .	4.0	26
42	Unmanned aerial vehicle measurements of volcanic carbon dioxide fluxes. Geophysical Research Letters, 2008, 35, .	4.0	142
43	Total volatile flux from Mount Etna. Geophysical Research Letters, 2008, 35, .	4.0	112
44	Ground Based Ultraviolet Remote Sensing of Volcanic Gas Plumes. Sensors, 2008, 8, 1559-1574.	3.8	11
45	Variable SO₂ emission rates for Anatahan volcano, the Commonwealth of the Northern Mariana Islands: Implications for deriving arcâ€wide volatile fluxes from erupting volcanoes. Geophysical Research Letters, 2007, 34, .	4.0	13
46	Degassing of gaseous (elemental and reactive) and particulate mercury from Mount Etna volcano (Southern Italy). Atmospheric Environment, 2007, 41, 7377-7388.	4.1	97
47	Measurement of volcanic SO2 fluxes with differential optical absorption spectroscopy. Journal of Volcanology and Geothermal Research, 2007, 162, 111-122.	2.1	30
48	Sources, size distribution, and downwind grounding of aerosols from Mount Etna. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	41
49	BrO formation in volcanic plumes. Geochimica Et Cosmochimica Acta, 2006, 70, 2935-2941.	3.9	122
50	Comparison of COSPEC and two miniature ultraviolet spectrometer systems for SO2 measurements using scattered sunlight. Bulletin of Volcanology, 2006, 68, 313-322.	3.0	45
51	A reassessment of current volcanic emissions from the Central American arc with specific examples from Nicaragua. Journal of Volcanology and Geothermal Research, 2006, 149, 297-311.	2.1	85
52	Sulfur dioxide fluxes from the volcanoes of Hokkaido, Japan. Journal of Volcanology and Geothermal Research, 2006, 158, 235-243.	2.1	18
53	Mt. Erebus, the largest point source of NO2 in Antarctica. Atmospheric Environment, 2005, 39, 6000-6006.	4.1	48
54	Volcano remote sensing with ground-based spectroscopy. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2005, 363, 2915-2929.	3.4	30

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55	H2S fluxes from Mt. Etna, Stromboli, and Vulcano (Italy) and implications for the sulfur budget at volcanoes. Geochimica Et Cosmochimica Acta, 2005, 69, 1861-1871.	3.9	139
56	Accurate measurement of volcanic SO2flux: Determination of plume transport speed and integrated SO2concentration with a single device. Geochemistry, Geophysics, Geosystems, 2005, 6, .	2.5	30
57	Emission of bromine and iodine from Mount Etna volcano. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	116
58	Plume velocity determination for volcanic SO2flux measurements. Geophysical Research Letters, 2005, 32, .	4.0	49
59	Sulfur, heat, and magma budget of Erta â€˜Ale lava lake, Ethiopia. Geology, 2004, 32, 509.	4.4	74
60	A simple technique for measuring power station SO2 and NO2 emissions. Atmospheric Environment, 2004, 38, 21-25.	4.1	36
61	Aerosol chemistry of emissions from three contrasting volcanoes in Italy. Atmospheric Environment, 2004, 38, 5637-5649.	4.1	37
62	NO2Emissions from Agricultural Burning in SÃ£o Paulo, Brazil. Environmental Science & Technology, 2004, 38, 4557-4561.	10.0	29
63	Sulphur dioxide fluxes from Papua New Guinea's volcanoes. Geophysical Research Letters, 2004, 31, .	4.0	32
64	SO2depletion in tropospheric volcanic plumes. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	68
65	Characterization and evolution of tropospheric plumes from Lascar and Villarrica volcanoes, Chile. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	94
66	Nitric acid from volcanoes. Earth and Planetary Science Letters, 2004, 218, 17-30.	4.4	77
67	Cerium-doped fluoride lasers. IEEE Journal of Quantum Electronics, 2004, 40, 1430-1440.	1.9	58
68	Title is missing!. Journal of Atmospheric Chemistry, 2003, 46, 207-237.	3.2	93
69	A compact frequency-doubled 10-kHz PRF copper-vapour-laser-pumped dye laser. Applied Physics B: Lasers and Optics, 2003, 76, 307-311.	2.2	6
70	A miniaturised ultraviolet spectrometer for remote sensing of SO2 fluxes: a new tool for volcano surveillance. Journal of Volcanology and Geothermal Research, 2003, 119, 241-254.	2.1	334
71	Changes in gas composition prior to a minor explosive eruption at Masaya volcano, Nicaragua. Journal of Volcanology and Geothermal Research, 2003, 126, 327-339.	2.1	91
72	Optical sensing of volcanic gas and aerosol emissions. Geological Society Special Publication, 2003, 213, 149-168.	1.3	20

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73	Compact 25-W 10-kHz Nd:YLF-pumped dye laser. Applied Optics, 2002, 41, 1714.	2.1	6
74	Primary sulfate aerosol and associated emissions from Masaya Volcano, Nicaragua. Journal of Geophysical Research, 2002, 107, ACH 5-1-ACH 5-8.	3.3	91
75	A Ti:sapphire laser end-pumped by a fibre-coupled copper vapour laser. Optics Communications, 2002, 209, 217-221.	2.1	1
76	Temperature-dependent polarization effects in Ce:LiLuF. Applied Optics, 2001, 40, 4326.	2.1	10
77	A 10 kHz Ce:LiSAF laser pumped by the sum-frequency-mixed output of a copper vapour laser. Optics Communications, 2001, 193, 233-236.	2.1	11
78	A 380-mW 7-MHz cerium LiLuF laser pumped by the frequency doubled yellow output of a copper-vapor-laser. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 1526-1531.	2.9	10
79	10 kHz continuously tunable Ce:LiLuF4 laser. Electronics Letters, 1999, 35, 1640.	1.0	27