Rohit Bhartia

List of Publications by Year
in descending order

#	Article	IF	Citations
1	The power of paired proximity science observations: Co-located data from SHERLOC and PIXL on Mars. Icarus, 2022, 387, 115179.	2.5	11
2	Perseveranceâ€™s Scanning Habitable Environments with Raman and Luminescence for Organics and Chemicals (SHERLOC) Investigation. Space Science Reviews, 2021, 217, 1.	8.1	94
3	Calibration of the SHERLOC Deep Ultraviolet Fluorescenceâ€“Raman Spectrometer on the <i>Perseverance</i> Rover. Applied Spectroscopy, 2021, 75, 000370282110133.	2.2	18
4	Detection and Degradation of Adenosine Monophosphate in Perchlorate-Spiked Martian Regolith Analog, by Deep-Ultraviolet Spectroscopy. Astrobiology, 2021, 21, 511-525.	3.0	10
5	A deep-ultraviolet Raman and Fluorescence spectral library of 62 minerals for the SHERLOC instrument onboard Mars 2020. Planetary and Space Science, 2021, 209, 105356.	1.7	21
6	An Optical Model for Quantitative Raman Microspectroscopy. Applied Spectroscopy, 2020, 74, 684-700.	2.2	16
7	Mars 2020 Mission Overview. Space Science Reviews, 2020, 216, 1.	8.1	239
8	Subsurface <i>In Situ</i> Detection of Microbes and Diverse Organic Matter Hotspots in the Greenland Ice Sheet. Astrobiology, 2020, 20, 1185-1211.	3.0	6
9	Investigating Habitability with an Integrated Rock-Climbing Robot and Astrobiology Instrument Suite. Astrobiology, 2020, 20, 1427-1449.	3.0	23
10	The Processing Electronics and Detector of the Mars 2020 SHERLOC Instrument. , 2020, , .		1
11	Patterns of in situ Mineral Colonization by Microorganisms in a ~60Â°C Deep Continental Subsurface Aquifer. Frontiers in Microbiology, 2020, 11, 536535.	3.5	7
12	â€œDeep-ultraviolet Raman spectra of Mars-relevant evaporite minerals under 248.6Ânm excitationâ€• Icarus, 2020, 351, 113969.	2.5	6
13	Simulating Serpentinization as It Could Apply to the Emergence of Life Using the JPL Hydrothermal Reactor. Astrobiology, 2020, 20, 307-326.	3.0	22
14	Studies of a Lacustrineâ€Volcanic Mars Analog Field Site With Marsâ€2020â€Like Instruments. Earth and Space Science, 2020, 7, e2019EA000720.	2.6	18
15	A Semi-Autonomous Method to Detect Cosmic Rays in Raman Hyperspectral Data Sets. Applied Spectroscopy, 2019, 73, 1019-1027.	2.2	18
16	Attenuation of Ultraviolet Radiation in Rocks and Minerals: Implications for Mars Science. Journal of Geophysical Research E: Planets, 2019, 124, 2599-2612.	3.6	31
17	The Cell and the Sum of Its Parts: Patterns of Complexity in Biosignatures as Revealed by Deep UV Raman Spectroscopy. Frontiers in Microbiology, 2019, 10, 679.	3.5	24
18	WATSON:<i>In Situ</i>Organic Detection in Subsurface Ice Using Deep-UV Fluorescence Spectroscopy. Astrobiology, 2019, 19, 771-784.	3.0	13

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19	The next frontier for planetary and human exploration. Nature Astronomy, 2019, 3, 116-120.	10.1	39
20	A new, hand-held, 1- to 5-m standoff analyzer for real-time detection of trace chemical, biological, and explosive substances on surfaces. , 2019, , .		1
21	NaDos: A real-time, wearable, personal exposure monitor for hazardous organic vapors. Sensors and Actuators B: Chemical, 2018, 255, 2996-3003.	7.8	9
22	Development of a Deep Drill System with Integrated Deep UV/Raman Spectrometer for Mars and Europa. , 2018, , .		2
23	The NASA Mars 2020 Rover Mission and the Search for Extraterrestrial Life. , 2018, , 275-308.		95
24	Rapid optical detection and classification of microbes in suspicious powders. , 2018, , .		1
25	Deep UV Raman spectroscopy for planetary exploration: The search for in situ organics. Icarus, 2017, 290, 201-214.	2.5	64
26	Smoke, Mirrors, and Black Boxes: Imaging the Invisible World. , 2016, , .		0
27	SHERLOC: Scanning habitable environments with Raman & luminescence for organics & chemicals. , 2015, , .		67
28	In situ Detection of Microbial Life in the Deep Biosphere in Igneous Ocean Crust. Frontiers in Microbiology, 2015, 6, 1260.	3.5	14
29	Mackinawite and greigite in ancient alkaline hydrothermal chimneys: Identifying potential key catalysts for emergent life. Earth and Planetary Science Letters, 2015, 430, 105-114.	4.4	69
30	Improved sensing using simultaneous deep-UV Raman and fluorescence detection-II. Proceedings of SPIE, 2014, , .	0.8	6
31	The Drive to Life on Wet and Icy Worlds. Astrobiology, 2014, 14, 308-343.	3.0	232
32	Report of the workshop for life detection in samples from Mars. Life Sciences in Space Research, 2014, 2, 1-5.	2.3	24
33	The Mojave Vadose Zone: A Subsurface Biosphere Analogue for Mars. Astrobiology, 2013, 13, 637-646.	3.0	4
34	Noncontact, reagentless, nondestructive, detection of organics, biosignatures, and water. , 2012, , .		5
35	Wearable real-time direct reading naphthalene and VOC personal exposure monitor. , 2012, , .		3
36	Ultraviolet-Stimulated Fluorescence and Phosphorescence of Aromatic Hydrocarbons in Water Ice. Astrobiology, 2011, 11, 151-156.	3.0	9

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37	Iron-Sulfide-Bearing Chimneys as Potential Catalytic Energy Traps at Life's Emergence. Astrobiology, 2011, 11, 933-950.	3.0	77
38	Label-Free Bacterial Imaging with Deep-UV-Laser-Induced Native Fluorescence. Applied and Environmental Microbiology, 2010, 76, 7231-7237.	3.1	66
39	Performance status of a small robot-mounted or hand-held, solar-blind, standoff chemical, biological, and explosives (CBE) sensor. Proceedings of SPIE, 2009, , .	0.8	5
40	Particle sieving and sorting under simulated martian conditions. Icarus, 2009, 204, 687-696.	2.5	9
41	Classification of Organic and Biological Materials with Deep Ultraviolet Excitation. Applied Spectroscopy, 2008, 62, 1070-1077.	2.2	56
42	Water and surface contamination monitoring using deep UV laser induced native fluorescence and Raman spectroscopy. , 2006, , .		13
43	A self-contained native fluorescence detector for measurement of organic molecules and chemicals of life. , 2006, 6398, 109.		0
44	Status of miniature integrated UV resonance fluorescence and Raman sensors for detection and identification of biochemical warfare agents. , 2005, , .		6
45	Insecticidal Toxins from the Bacterium <i>Photorhabdus luminescens</i>. Science, 1998, 280, 2129-2132.	12.6	395