Rohit Bhartia

List of Publications by Year
in descending order

45	1,860	471509 17	377865 34
papers	citations	h-index	g-index

46	46	46	1875
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Insecticidal Toxins from the Bacterium Photorhabdus luminescens. Science, 1998, 280, 2129-2132.	12.6	395
2	Mars 2020 Mission Overview. Space Science Reviews, 2020, 216, 1.	8.1	239
3	The Drive to Life on Wet and Icy Worlds. Astrobiology, 2014, 14, 308-343.	3.0	232
4	The NASA Mars 2020 Rover Mission and the Search for Extraterrestrial Life. , 2018, , 275-308.		95
5	Perseveranceâ€™s Scanning Habitable Environments with Raman and Luminescence for Organics and Chemicals (SHERLOC) Investigation. Space Science Reviews, 2021, 217, 1.	8.1	94
6	Iron-Sulfide-Bearing Chimneys as Potential Catalytic Energy Traps at Life's Emergence. Astrobiology, 2011, 11, 933-950.	3.0	77
7	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
8	SHERLOC: Scanning habitable environments with Raman & luminescence for organics & chemicals. , 2015, , .		67
9	Label-Free Bacterial Imaging with Deep-UV-Laser-Induced Native Fluorescence. Applied and Environmental Microbiology, 2010, 76, 7231-7237.	3.1	66
10	Deep UV Raman spectroscopy for planetary exploration: The search for in situ organics. Icarus, 2017, 290, 201-214.	2.5	64
11	Classification of Organic and Biological Materials with Deep Ultraviolet Excitation. Applied Spectroscopy, 2008, 62, 1070-1077.	2.2	56
12	The next frontier for planetary and human exploration. Nature Astronomy, 2019, 3, 116-120.	10.1	39
13	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
14	Report of the workshop for life detection in samples from Mars. Life Sciences in Space Research, 2014, 2, 1-5.	2.3	24
15	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
16	Investigating Habitability with an Integrated Rock-Climbing Robot and Astrobiology Instrument Suite. Astrobiology, 2020, 20, 1427-1449.	3.0	23
17	Simulating Serpentinization as It Could Apply to the Emergence of Life Using the JPL Hydrothermal Reactor. Astrobiology, 2020, 20, 307-326.	3.0	22
18	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

#	Article	IF	Citations
19	A Semi-Autonomous Method to Detect Cosmic Rays in Raman Hyperspectral Data Sets. Applied Spectroscopy, 2019, 73, 1019-1027.	2.2	18
20	Studies of a Lacustrineâ€Volcanic Mars Analog Field Site With Marsâ€2020â€Like Instruments. Earth and Space Science, 2020, 7, e2019EA000720.	2.6	18
21	Calibration of the SHERLOC Deep Ultraviolet Fluorescenceâ€“Raman Spectrometer on the Perseverance Rover. Applied Spectroscopy, 2021, 75, 000370282110133.	2.2	18
22	An Optical Model for Quantitative Raman Microspectroscopy. Applied Spectroscopy, 2020, 74, 684-700.	2.2	16
23	In situ Detection of Microbial Life in the Deep Biosphere in Igneous Ocean Crust. Frontiers in Microbiology, 2015, 6, 1260.	3.5	14
24	Water and surface contamination monitoring using deep UV laser induced native fluorescence and Raman spectroscopy. , 2006, , .		13
25	WATSON:In SituOrganic Detection in Subsurface Ice Using Deep-UV Fluorescence Spectroscopy. Astrobiology, 2019, 19, 771-784.	3.0	13
26	The power of paired proximity science observations: Co-located data from SHERLOC and PIXL on Mars. Icarus, 2022, 387, 115179.	2.5	11
27	Detection and Degradation of Adenosine Monophosphate in Perchlorate-Spiked Martian Regolith Analog, by Deep-Ultraviolet Spectroscopy. Astrobiology, 2021, 21, 511-525.	3.0	10
28	Particle sieving and sorting under simulated martian conditions. Icarus, 2009, 204, 687-696.	2.5	9
29	Ultraviolet-Stimulated Fluorescence and Phosphorescence of Aromatic Hydrocarbons in Water Ice. Astrobiology, 2011, 11, 151-156.	3.0	9
30	NaDos: A real-time, wearable, personal exposure monitor for hazardous organic vapors. Sensors and Actuators B: Chemical, 2018, 255, 2996-3003.	7.8	9
31	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
32	Status of miniature integrated UV resonance fluorescence and Raman sensors for detection and identification of biochemical warfare agents. , 2005, , .		6
33	Improved sensing using simultaneous deep-UV Raman and fluorescence detection-II. Proceedings of SPIE, 2014, , .	0.8	6
34	Subsurface In Situ Detection of Microbes and Diverse Organic Matter Hotspots in the Greenland Ice Sheet. Astrobiology, 2020, 20, 1185-1211.	3.0	6
35	â€œDeep-ultraviolet Raman spectra of Mars-relevant evaporite minerals under 248.6Ânm excitationâ€• Icarus, 2020, 351, 113969.	2.5	6
36	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

#	Article	IF	Citations
37	Noncontact, reagentless, nondestructive, detection of organics, biosignatures, and water. , 2012, , .		5
38	The Mojave Vadose Zone: A Subsurface Biosphere Analogue for Mars. Astrobiology, 2013, 13, 637-646.	3.0	4
39	Wearable real-time direct reading naphthalene and VOC personal exposure monitor. , 2012, , .		3
40	Development of a Deep Drill System with Integrated Deep UV/Raman Spectrometer for Mars and Europa. , 2018, , .		2
41	The Processing Electronics and Detector of the Mars 2020 SHERLOC Instrument. , 2020, , .		1
42	Rapid optical detection and classification of microbes in suspicious powders. , 2018, , .		1
43	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
44	A self-contained native fluorescence detector for measurement of organic molecules and chemicals of life. , 2006, 6398, 109.		0
45	Smoke, Mirrors, and Black Boxes: Imaging the Invisible World. , 2016, , .		0