Emmanuel A Lalla

List of Publications by Year
in descending order

34 papers	849 citations	687363 13 h-index	477307 29 g-index
36 all docs	36 docs citations	36 times ranked	828 citing authors

#	Article	IF	Citations
1	Spectroscopic study of terrestrial analogues to support rover missions to Mars â€“ A Raman-centred review. Analytica Chimica Acta, 2022, 1209, 339003.	5.4	12
2	Analytical database of Martian minerals (ADaMM): Project synopsis and Raman data overview. Journal of Raman Spectroscopy, 2022, 53, 364-381.	2.5	7
3	The Raman laser spectrometer ExoMars simulator (RLS Sim): A heavyâ€duty Raman tool for ground testing on ExoMars. Journal of Raman Spectroscopy, 2022, 53, 382-395.	2.5	8
4	Raman Characterization of the CanMars Rover Field Campaign Samples Using the Raman Laser Spectrometer ExoMars Simulator: Implications for Mars and Planetary Exploration. Astrobiology, 2022, , .	3.0	3
5	Elemental estimation of terrestrial analogues from the CanMars rover field campaign using LiRS: Implications for detecting silica-rich deposits on Mars. Icarus, 2021, 358, 114113.	2.5	7
6	Structural and vibrational analyses of CePO4 synthetic monazite samples under an optimized precipitation process. Journal of Molecular Structure, 2021, 1223, 129150.	3.6	8
7	ExoMars Raman Laser Spectrometer: A Tool to Semiquantify the Serpentinization Degree of Olivine-Rich Rocks on Mars. Astrobiology, 2021, 21, 307-322.	3.0	13
8	Remote science activities during the AMADEE-18 Mars analog mission: Preparation and execution during a simulated planetary surface mission. Journal of Space Safety Engineering, 2021, 8, 75-85.	0.9	2
9	Combined Spectroscopic Analysis of Terrestrial Analogs from a Simulated Astronaut Mission Using the Laser-Induced Breakdown Spectroscopy (LIBS) Raman Sensor: Implications for Mars. Applied Spectroscopy, 2021, 75, 1093-1113.	2.2	8
10	UV Time-Resolved Laser-Induced Fluorescence Spectroscopy of Amino Acids Found in Meteorites: Implications for Space Science and Exploration. Astrobiology, 2021, 21, 1350-1362.	3.0	4
11	Statistical learning for the estimation of Judd-Ofelt parameters: A case study of Er3+: Doped tellurite glasses. Journal of Luminescence, 2021, 235, 118020.	3.1	4
12	Raman-IR Spectroscopic Structural Analysis of Rare-Earth (RE3+) Doped Fluorotellurite Glasses at different laser wavelengths. Vibrational Spectroscopy, 2020, 106, 103020.	2.2	11
13	Clinical anisotropy: A case for shared decision making in the age of too much data and patient disâ€integration. Journal of Evaluation in Clinical Practice, 2020, 26, 604-609.	1.8	2
14	Judd-Ofelt parameters of RE3+-doped fluorotellurite glass (RE3+= Pr3+, Nd3+, Sm3+, Tb3+, Dy3+, Ho3+,) Tj ETQq0 0 0 rgBT /Overlock 1	5.5	40
15	UV laserâ€induced fluorescence spectroscopy as a nonâ€destructive technique for mineral and organic detection in carbonaceous chondrites. Meteoritics and Planetary Science, 2020, 55, 2287-2300.	1.6	6
16	Laboratory Analysis of Returned Samples from the AMADEE-18 Mars Analog Mission. Astrobiology, 2020, 20, 1303-1320.	3.0	10
17	ExoMars Raman Laser Spectrometer (RLS): development of chemometric tools to classify ultramafic igneous rocks on Mars. Scientific Reports, 2020, 10, 16954.	3.3	22
18	Raman characterization of terrestrial analogs from the AMADEEâ€18 astronaut simulated mission using the ExoMars RLS simulator: Implications for Mars. Journal of Raman Spectroscopy, 2020, 51, 2525-2535.	2.5	5

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19	Raman Laser Spectrometer (RLS) calibration target design to allow onboard combined science between the RLS and MicrOmega instruments on the ExoMars rover. Journal of Raman Spectroscopy, 2020, 51, 1718-1730.	2.5	19
20	The AMADEE-18 Mars Analog Expedition in the Dhofar Region of Oman. Astrobiology, 2020, 20, 1276-1286.	3.0	11
21	On the application of a novel linear mixture model on laserâ€induced breakdown spectroscopy: Implications for Mars. Journal of Chemometrics, 2019, 33, e3174.	1.3	10
22	Synthesis, luminescence, and electrical properties of Na6Mg(SO4)4:xEu vanthoffite ceramics as electrode materials for sodium ion batteries. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 247, 114384.	3.5	6
23	Biosignature detection by Mars rover equivalent instruments in samples from the CanMars Mars Sample Return Analogue Deployment. Planetary and Space Science, 2019, 176, 104683.	1.7	17
24	Polarized Raman analyzes of (RE3+) doped fluorotellurite glass and ceramics. Vibrational Spectroscopy, 2019, 103, 102934.	2.2	6
25	A micro-Raman and X-ray study of erupted submarine pyroclasts from El Hierro (Spain) and its' astrobiological implications. Life Sciences in Space Research, 2019, 21, 49-64.	2.3	7
26	Combined vibrational, structural, elemental and MÃ¶ssbauer spectroscopic analysis of natural phillipsite (zeolite) from historical eruptions in Tenerife, Canary Islands: Implication for Mars. Vibrational Spectroscopy, 2019, 101, 10-19.	2.2	8
27	Optical temperature sensor based on Sm3+ emissions in a fluorotellurite glass. Optical Fiber Technology, 2019, 47, 178-186.	2.7	20
28	Raman-IR vibrational and XRD characterization of ancient and modern mineralogy from volcanic eruption in Tenerife Island: Implication for Mars. Geoscience Frontiers, 2016, 7, 673-681.	8.4	16
29	Ramanâ€“MÃ¶ssbauerâ€“XRD studies of selected samples from â€œLos Azulejosâ€•outcrop: A possible analogue for assessing the alteration processes on Mars. Advances in Space Research, 2016, 57, 2385-2395.	2.6	18
30	Nd3+-doped TeO2â€“PbF2â€“AlF3 glasses for laser applications. Optical Materials, 2016, 51, 35-41.	3.6	53
31	Optical temperature sensor based on the Nd3+ infrared thermalized emissions in a fluorotellurite glass. Journal of Luminescence, 2015, 166, 209-214.	3.1	38
32	Effects of Er3+ concentration on thermal sensitivity in optical temperature fluorotellurite glass sensors. Sensors and Actuators B: Chemical, 2013, 176, 1167-1175.	7.8	137
33	Optical characterization, 1.5Î¼m emission and IR-to-visible energy upconversion in Er3+-doped fluorotellurite glasses. Journal of Luminescence, 2011, 131, 1239-1248.	3.1	66
34	Temperature sensor based on the Er3+ green upconverted emission in a fluorotellurite glass. Sensors and Actuators B: Chemical, 2011, 158, 208-213.	7.8	245