

# Emmanuel A Lalla

## List of Publications by Year in descending order

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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	Temperature sensor based on the Er <sup>3+</sup> green upconverted emission in a fluorotellurite glass. <i>Sensors and Actuators B: Chemical</i> , 2011, 158, 208-213.	7.8	245
2	Effects of Er <sup>3+</sup> concentration on thermal sensitivity in optical temperature fluorotellurite glass sensors. <i>Sensors and Actuators B: Chemical</i> , 2013, 176, 1167-1175.	7.8	137
3	Optical characterization, 1.5 $\mu$ m emission and IR-to-visible energy upconversion in Er <sup>3+</sup> -doped fluorotellurite glasses. <i>Journal of Luminescence</i> , 2011, 131, 1239-1248.	3.1	66
4	Nd <sup>3+</sup> -doped TeO <sub>2</sub> -PbF <sub>2</sub> -AlF <sub>3</sub> glasses for laser applications. <i>Optical Materials</i> , 2016, 51, 35-41.	3.6	53
5	Judd-Ofelt parameters of RE <sup>3+</sup> -doped fluorotellurite glass (RE <sup>3+</sup> = Pr <sup>3+</sup> , Nd <sup>3+</sup> , Sm <sup>3+</sup> , Tb <sup>3+</sup> , Dy <sup>3+</sup> , Ho <sup>3+</sup> .) <i>Tj ETQq1_1_0.784314 rgBT /Ov</i>	5.5	40
6	Optical temperature sensor based on the Nd <sup>3+</sup> infrared thermalized emissions in a fluorotellurite glass. <i>Journal of Luminescence</i> , 2015, 166, 209-214.	3.1	38
7	ExoMars Raman Laser Spectrometer (RLS): development of chemometric tools to classify ultramafic igneous rocks on Mars. <i>Scientific Reports</i> , 2020, 10, 16954.	3.3	22
8	Optical temperature sensor based on Sm <sup>3+</sup> emissions in a fluorotellurite glass. <i>Optical Fiber Technology</i> , 2019, 47, 178-186.	2.7	20
9	Raman Laser Spectrometer (RLS) calibration target design to allow onboard combined science between the RLS and MicrOmega instruments on the ExoMars rover. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 1718-1730.	2.5	19
10	Raman-Mössbauer-XRD studies of selected samples from the Los Azulejos outcrop: A possible analogue for assessing the alteration processes on Mars. <i>Advances in Space Research</i> , 2016, 57, 2385-2395.	2.6	18
11	Biosignature detection by Mars rover equivalent instruments in samples from the CanMars Mars Sample Return Analogue Deployment. <i>Planetary and Space Science</i> , 2019, 176, 104683.	1.7	17
12	Raman-IR vibrational and XRD characterization of ancient and modern mineralogy from volcanic eruption in Tenerife Island: Implication for Mars. <i>Geoscience Frontiers</i> , 2016, 7, 673-681.	8.4	16
13	ExoMars Raman Laser Spectrometer: A Tool to Semiquantify the Serpentinization Degree of Olivine-Rich Rocks on Mars. <i>Astrobiology</i> , 2021, 21, 307-322.	3.0	13
14	Spectroscopic study of terrestrial analogues to support rover missions to Mars - A Raman-centred review. <i>Analytica Chimica Acta</i> , 2022, 1209, 339003.	5.4	12
15	Raman-IR Spectroscopic Structural Analysis of Rare-Earth (RE <sup>3+</sup> ) Doped Fluorotellurite Glasses at different laser wavelengths. <i>Vibrational Spectroscopy</i> , 2020, 106, 103020.	2.2	11
16	The AMADEE-18 Mars Analog Expedition in the Dhofar Region of Oman. <i>Astrobiology</i> , 2020, 20, 1276-1286.	3.0	11
17	On the application of a novel linear mixture model on laser-induced breakdown spectroscopy: Implications for Mars. <i>Journal of Chemometrics</i> , 2019, 33, e3174.	1.3	10
18	Laboratory Analysis of Returned Samples from the AMADEE-18 Mars Analog Mission. <i>Astrobiology</i> , 2020, 20, 1303-1320.	3.0	10

#	ARTICLE	IF	CITATIONS
19	Combined vibrational, structural, elemental and Mössbauer spectroscopic analysis of natural phillipsite (zeolite) from historical eruptions in Tenerife, Canary Islands: Implication for Mars. <i>Vibrational Spectroscopy</i> , 2019, 101, 10-19.	2.2	8
20	Structural and vibrational analyses of CePO <sub>4</sub> synthetic monazite samples under an optimized precipitation process. <i>Journal of Molecular Structure</i> , 2021, 1223, 129150.	3.6	8
21	Combined Spectroscopic Analysis of Terrestrial Analogs from a Simulated Astronaut Mission Using the Laser-Induced Breakdown Spectroscopy (LIBS) Raman Sensor: Implications for Mars. <i>Applied Spectroscopy</i> , 2021, 75, 1093-1113.	2.2	8
22	The Raman laser spectrometer ExoMars simulator (RLS Sim): A heavy-duty Raman tool for ground testing on ExoMars. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 382-395.	2.5	8
23	A micro-Raman and X-ray study of erupted submarine pyroclasts from El Hierro (Spain) and its' astrobiological implications. <i>Life Sciences in Space Research</i> , 2019, 21, 49-64.	2.3	7
24	Elemental estimation of terrestrial analogues from the CanMars rover field campaign using LiRS: Implications for detecting silica-rich deposits on Mars. <i>Icarus</i> , 2021, 358, 114113.	2.5	7
25	Analytical database of Martian minerals (ADaMM): Project synopsis and Raman data overview. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 364-381.	2.5	7
26	Synthesis, luminescence, and electrical properties of Na <sub>6</sub> Mg(SO <sub>4</sub> ) <sub>4</sub> :xEu vanthoffite ceramics as electrode materials for sodium ion batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2019, 247, 114384.	3.5	6
27	Polarized Raman analyzes of (RE <sub>3</sub> ) <sup>+</sup> doped fluorotellurite glass and ceramics. <i>Vibrational Spectroscopy</i> , 2019, 103, 102934.	2.2	6
28	UV laser-induced fluorescence spectroscopy as a non-destructive technique for mineral and organic detection in carbonaceous chondrites. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2287-2300.	1.6	6
29	Raman characterization of terrestrial analogs from the AMADEE-18 astronaut simulated mission using the ExoMars RLS simulator: Implications for Mars. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 2525-2535.	2.5	5
30	UV Time-Resolved Laser-Induced Fluorescence Spectroscopy of Amino Acids Found in Meteorites: Implications for Space Science and Exploration. <i>Astrobiology</i> , 2021, 21, 1350-1362.	3.0	4
31	Statistical learning for the estimation of Judd-Ofelt parameters: A case study of Er <sup>3+</sup> : Doped tellurite glasses. <i>Journal of Luminescence</i> , 2021, 235, 118020.	3.1	4
32	Raman Characterization of the CanMars Rover Field Campaign Samples Using the Raman Laser Spectrometer ExoMars Simulator: Implications for Mars and Planetary Exploration. <i>Astrobiology</i> , 2022, . .	3.0	3
33	Clinical anisotropy: A case for shared decision making in the age of too much data and patient disintegration. <i>Journal of Evaluation in Clinical Practice</i> , 2020, 26, 604-609.	1.8	2
34	Remote science activities during the AMADEE-18 Mars analog mission: Preparation and execution during a simulated planetary surface mission. <i>Journal of Space Safety Engineering</i> , 2021, 8, 75-85.	0.9	2