

# Camilo de Lelis Medeiros de Moraes

## List of Publications by Year in descending order

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104  
papers

1,939  
citations

304743  
22  
h-index

330143  
37  
g-index

105  
all docs

105  
docs citations

105  
times ranked

1935  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tutorial: multivariate classification for vibrational spectroscopy in biological samples. <i>Nature Protocols</i> , 2020, 15, 2143-2162.	12.0	181
2	Differential diagnosis of Alzheimer's disease using spectrochemical analysis of blood. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E7929-E7938.	7.1	125
3	Standardization of complex biologically derived spectrochemical datasets. <i>Nature Protocols</i> , 2019, 14, 1546-1577.	12.0	96
4	Improving data splitting for classification applications in spectrochemical analyses employing a random-mutation Kennard-Stone algorithm approach. <i>Bioinformatics</i> , 2019, 35, 5257-5263.	4.1	72
5	LDA vs. QDA for FT-MIR prostate cancer tissue classification. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2017, 162, 123-129.	3.5	64
6	Raman Spectroscopy to Diagnose Alzheimer's Disease and Dementia with Lewy Bodies in Blood. <i>ACS Chemical Neuroscience</i> , 2018, 9, 2786-2794.	3.5	62
7	Potential of mid-infrared spectroscopy as a non-invasive diagnostic test in urine for endometrial or ovarian cancer. <i>Analyst, The</i> , 2018, 143, 3156-3163.	3.5	59
8	Spectroscopy with computational analysis in virological studies: A decade (2006-2016). <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 97, 244-256.	11.4	58
9	Comparing unfolded and two-dimensional discriminant analysis and support vector machines for classification of EEM data. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2017, 170, 1-12.	3.5	45
10	Low-Cost Method for Quantifying Sodium in Coconut Water and Seawater for the Undergraduate Analytical Chemistry Laboratory: Flame Test, a Mobile Phone Camera, and Image Processing. <i>Journal of Chemical Education</i> , 2014, 91, 1958-1960.	2.3	40
11	Determination of developmental and ripening stages of whole tomato fruit using portable infrared spectroscopy and Chemometrics. <i>BMC Plant Biology</i> , 2019, 19, 236.	3.6	40
12	Attenuated total reflection Fourier-transform infrared spectral discrimination in human bodily fluids of oesophageal transformation to adenocarcinoma. <i>Analyst, The</i> , 2019, 144, 7447-7456.	3.5	34
13	MCR-ALS and PLS coupled to NIR/MIR spectroscopies for quantification and identification of adulterant in biodiesel-diesel blends. <i>Fuel</i> , 2017, 210, 497-506.	6.4	32
14	Detecting Endometrial Cancer by Blood Spectroscopy: A Diagnostic Cross-Sectional Study. <i>Cancers</i> , 2020, 12, 1256.	3.7	32
15	Integrating a Smartphone and Molecular Modeling for Determining the Binding Constant and Stoichiometry Ratio of the Iron(II)-Phenanthroline Complex: An Activity for Analytical and Physical Chemistry Laboratories. <i>Journal of Chemical Education</i> , 2016, 93, 1760-1765.	2.3	29
16	Variable selection with a support vector machine for discriminating <i>Cryptococcus</i> fungal species based on ATR-FTIR spectroscopy. <i>Analytical Methods</i> , 2017, 9, 2964-2970.	2.7	29
17	ATR-FTIR spectroscopy in blood plasma combined with multivariate analysis to detect HIV infection in pregnant women. <i>Scientific Reports</i> , 2020, 10, 20156.	3.3	29
18	Quantification of milk adulterants (starch, H <sub>2</sub> O <sub>2</sub> , and NaClO) using colorimetric assays coupled to smartphone image analysis. <i>Microchemical Journal</i> , 2020, 156, 104968.	4.5	28

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19	Direct identification and visualisation of real-world contaminating microplastics using Raman spectral mapping with multivariate curve resolution-alternating least squares. <i>Journal of Hazardous Materials</i> , 2022, 422, 126892.	12.4	28
20	Blood-based near-infrared spectroscopy for the rapid low-cost detection of Alzheimer's disease. <i>Analyst</i> , The, 2018, 143, 5959-5964.	3.5	26
21	Uncertainty estimation and misclassification probability for classification models based on discriminant analysis and support vector machines. <i>Analytica Chimica Acta</i> , 2019, 1063, 40-46.	5.4	26
22	Detection of ovarian cancer ( $\hat{A}$ ± neo-adjuvant chemotherapy effects) via ATR-FTIR spectroscopy: comparative analysis of blood and urine biofluids in a large patient cohort. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 5095-5107.	3.7	25
23	Revising Fourier-transform infrared (FT-IR) and Raman spectroscopy towards brain cancer detection. <i>Photodiagnosis and Photodynamic Therapy</i> , 2022, 38, 102785.	2.6	24
24	A colorimetric microwell method using a desktop scanner for biochemical assays. <i>Talanta</i> , 2014, 126, 145-150.	5.5	23
25	Determination of the geographical origin and ethanol content of Brazilian sugarcane spirit using near-infrared spectroscopy coupled with discriminant analysis. <i>Analytical Methods</i> , 2016, 8, 5658-5666.	2.7	23
26	Synchrotron- and focal plane array-based Fourier-transform infrared spectroscopy differentiates the basal and functional epithelial endometrial regions and identifies putative stem cell regions of human endometrial glands. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 4541-4554.	3.7	22
27	A three-dimensional principal component analysis approach for exploratory analysis of hyperspectral data: identification of ovarian cancer samples based on Raman microspectroscopy imaging of blood plasma. <i>Analyst</i> , The, 2019, 144, 2312-2319.	3.5	22
28	A low-cost microcontrolled photometer with one color recognition sensor for selective detection of $Pb^{2+}$ using gold nanoparticles. <i>Analytical Methods</i> , 2015, 7, 7917-7922.	2.7	21
29	ATR-FTIR spectroscopy for virus identification: A powerful alternative. <i>Biomedical Spectroscopy and Imaging</i> , 2021, 9, 103-118.	1.2	20
30	Ex Vivo Raman Spectrochemical Analysis Using a Handheld Probe Demonstrates High Predictive Capability of Brain Tumour Status. <i>Biosensors</i> , 2019, 9, 49.	4.7	19
31	Advances in chemometric control of commercial diesel adulteration by kerosene using IR spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 2301-2315.	3.7	19
32	Raman spectral discrimination in human liquid biopsies of oesophageal transformation to adenocarcinoma. <i>Journal of Biophotonics</i> , 2020, 13, e201960132.	2.3	19
33	Paper Spray Ionization Mass Spectrometry as a Potential Tool for Early Diagnosis of Cervical Cancer. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1665-1672.	2.8	19
34	Direct quantitative analysis of cocaine by thin layer chromatography plus a mobile phone and multivariate calibration: a cost-effective and rapid method. <i>Analytical Methods</i> , 2016, 8, 7632-7637.	2.7	18
35	Using Intact Nuts and Near Infrared Spectroscopy to Classify Macadamia Cultivars. <i>Food Analytical Methods</i> , 2018, 11, 1857-1866.	2.6	18
36	Determination of meningioma brain tumour grades using Raman microspectroscopy imaging. <i>Analyst</i> , The, 2019, 144, 7024-7031.	3.5	18

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37	A comparative analysis of different biofluids towards ovarian cancer diagnosis using Raman microspectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 911-922.	3.7	18
38	ATR-FTIR and multivariate analysis as a screening tool for cervical cancer in women from northeast Brazil: a biospectroscopic approach. <i>RSC Advances</i> , 2016, 6, 99648-99655.	3.6	17
39	Imaging cervical cytology with scanning near-field optical microscopy (SNOM) coupled with an IR-FEL. <i>Scientific Reports</i> , 2016, 6, 29494.	3.3	17
40	4-Nonylphenol effects on rat testis and sertoli cells determined by spectrochemical techniques coupled with chemometric analysis. <i>Chemosphere</i> , 2019, 218, 64-75.	8.2	17
41	Spectrochemical differentiation of meningioma tumours based on attenuated total reflection Fourier-transform infrared (ATR-FTIR) spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 1077-1086.	3.7	17
42	Gene-environment interactions between GSTs polymorphisms and targeted epigenetic alterations in hepatocellular carcinoma following organochlorine pesticides (OCPs) exposure. <i>Environment International</i> , 2020, 134, 105313.	10.0	17
43	Spectrochemical differentiation in gestational diabetes mellitus based on attenuated total reflection Fourier-transform infrared (ATR-FTIR) spectroscopy and multivariate analysis. <i>Scientific Reports</i> , 2020, 10, 19259.	3.3	17
44	Spectrochemical analysis in blood plasma combined with subsequent chemometrics for fibromyalgia detection. <i>Scientific Reports</i> , 2020, 10, 11769.	3.3	17
45	Principal Component Analysis with Linear and Quadratic Discriminant Analysis for Identification of Cancer Samples Based on Mass Spectrometry. <i>Journal of the Brazilian Chemical Society</i> , 0, , .	0.6	16
46	Aluminium foil as an alternative substrate for the spectroscopic interrogation of endometrial cancer. <i>Journal of Biophotonics</i> , 2018, 11, e201700372.	2.3	16
47	Attenuated total reflection Fourier transform-infrared (ATR-FTIR) spectroscopy as a new technology for discrimination between <i>Cryptococcus neoformans</i> and <i>Cryptococcus gattii</i> . <i>Analytical Methods</i> , 2016, 8, 7107-7115.	2.7	15
48	Prediction of meat quality traits in Nelore cattle by near-infrared reflectance spectroscopy <sup>1</sup> . <i>Journal of Animal Science</i> , 2018, 96, 4229-4237.	0.5	15
49	Assessment of macadamia kernel quality defects by means of near infrared spectroscopy (NIRS) and nuclear magnetic resonance (NMR). <i>Food Control</i> , 2019, 106, 106695.	5.5	15
50	New approach to investigate Common Variable Immunodeficiency patients using spectrochemical analysis of blood. <i>Scientific Reports</i> , 2019, 9, 7239.	3.3	15
51	Spectrochemical analysis of liquid biopsy harnessed to multivariate analysis towards breast cancer screening. <i>Scientific Reports</i> , 2020, 10, 12818.	3.3	15
52	Spectral classification for diagnosis involving numerous pathologies in a complex clinical setting: A neuro-oncology example. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 206, 89-96.	3.9	13
53	Determination and analytical validation of creatinine content in serum using image analysis by multivariate transfer calibration procedures. <i>Analytical Methods</i> , 2015, 7, 6904-6910.	2.7	11
54	Cold storage of “Palmer” mangoes sorted based on dry matter content using portable near infrared (VIS-NIR) spectrometer. <i>Journal of Food Processing and Preservation</i> , 2018, 42, e13644.	2.0	11

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55	TTWD-DA: A MATLAB toolbox for discriminant analysis based on trilinear three-way data. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2019, 188, 46-53.	3.5	11
56	Determination of serum protein content using cell phone image analysis. <i>Analytical Methods</i> , 2016, 8, 6458-6462.	2.7	10
57	Mass spectrometry and multivariate analysis to classify cervical intraepithelial neoplasia from blood plasma: an untargeted lipidomic study. <i>Scientific Reports</i> , 2018, 8, 3954.	3.3	10
58	SVM for FT-MIR prostate cancer classification: An alternative to the traditional methods. <i>Journal of Chemometrics</i> , 2018, 32, e3075.	1.3	10
59	Comparison of multivariate classification algorithms using EEM fluorescence data to distinguish <i>Cryptococcus neoformans</i> and <i>Cryptococcus gattii</i> pathogenic fungi. <i>Analytical Methods</i> , 2017, 9, 3968-3976.	2.7	9
60	Attenuated total reflection Fourier-transform infrared (ATR-FTIR) spectroscopy to diagnose osteoarthritis in equine serum. <i>Equine Veterinary Journal</i> , 2020, 52, 46-51.	1.7	9
61	Discrimination of fresh frozen non-tumour and tumour brain tissue using spectrochemical analyses and a classification model. <i>British Journal of Neurosurgery</i> , 2020, 34, 40-45.	0.8	9
62	A three-dimensional discriminant analysis approach for hyperspectral images. <i>Analyst</i> , The, 2020, 145, 5915-5924.	3.5	9
63	Identification of resistance in <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> using excitation-emission matrix fluorescence spectroscopy and multivariate analysis. <i>Scientific Reports</i> , 2020, 10, 12994.	3.3	9
64	Non-destructive assessment of the oxidative stability of intact macadamia nuts during the drying process by near-infrared spectroscopy. <i>LWT - Food Science and Technology</i> , 2019, 103, 101-107.	5.2	8
65	Establishing spectrochemical changes in the natural history of oesophageal adenocarcinoma from tissue Raman mapping analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 4077-4087.	3.7	8
66	Distinguishing active from quiescent disease in ANCA-associated vasculitis using attenuated total reflection Fourier-transform infrared spectroscopy. <i>Scientific Reports</i> , 2021, 11, 9981.	3.3	8
67	Estimation and classification of popping expansion capacity in popcorn breeding programs using NIR spectroscopy. <i>Journal of Cereal Science</i> , 2020, 91, 102861.	3.7	7
68	Assessing Binary Mixture Effects from Genotoxic and Endocrine Disrupting Environmental Contaminants Using Infrared Spectroscopy. <i>ACS Omega</i> , 2018, 3, 13399-13412.	3.5	6
69	Estimation of Ascorbic Acid in Intact Acerola ( <i>Malpighia emarginata</i> DC) Fruit by NIRS and Chemometric Analysis. <i>Horticulturae</i> , 2019, 5, 12.	2.8	6
70	Non-destructive genotypes classification and oil content prediction using near-infrared spectroscopy and chemometric tools in soybean breeding program. <i>Journal of Food Composition and Analysis</i> , 2020, 91, 103536.	3.9	6
71	Regional differences in clonal Japanese knotweed revealed by chemometrics-linked attenuated total reflection Fourier-transform infrared spectroscopy. <i>BMC Plant Biology</i> , 2021, 21, 522.	3.6	6
72	Age-Related and Gender-Related Increases in Colorectal Cancer Mortality Rates in Brazil Between 1979 and 2015: Projections for Continuing Rises in Disease. <i>Journal of Gastrointestinal Cancer</i> , 2021, 52, 280-288.	1.3	5

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73	Multivariate classification techniques and mass spectrometry as a tool in the screening of patients with fibromyalgia. <i>Scientific Reports</i> , 2021, 11, 22625.	3.3	5
74	Raman hyperspectral imaging coupled to three-dimensional discriminant analysis: classification of meningiomas brain tumour grades. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2022, 273, 121018.	3.9	5
75	A Multivariate Control Chart Approach for Calibration Transfer between NIR Spectrometers for Simultaneous Determination of Rifampicin and Isoniazid in Pharmaceutical Formulation. <i>Current Analytical Chemistry</i> , 2018, 14, 488-494.	1.2	4
76	Fourier transform infrared and Raman-based biochemical profiling of different grades of pure foetal-type hepatoblastoma. <i>Journal of Biophotonics</i> , 2019, 12, e201800304.	2.3	4
77	Variable Selection Towards Classification of Digital Images: Identification of Altered Glucose Levels in Serum. <i>Analytical Letters</i> , 2019, 52, 2239-2250.	1.8	4
78	Conventional and alternative pre-harvest treatments affect the quality of “Golden delicious” and “York” apple fruit. <i>Environmental and Experimental Botany</i> , 2020, 173, 104005.	4.2	4
79	Spectrochemical identification of kanamycin resistance genes in artificial microbial communities using Clover-assay. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2020, 181, 113108.	2.8	4
80	A comparative analysis of different biofluids using Raman spectroscopy to determine disease activity in ANCA-associated vasculitis. <i>Journal of Biophotonics</i> , 2021, 14, e202000426.	2.3	4
81	Near-infrared spectroscopy of blood plasma with chemometrics towards HIV discrimination during pregnancy. <i>Scientific Reports</i> , 2021, 11, 22609.	3.3	4
82	An imaging dataset of cervical cells using scanning near-field optical microscopy coupled to an infrared free electron laser. <i>Scientific Data</i> , 2017, 4, 170084.	5.3	3
83	Colorimetric Determination of Ascorbic Acid Based on Its Interfering Effect in the Enzymatic Analysis of Glucose: An Approach Using Smartphone Image Analysis. <i>Journal of the Brazilian Chemical Society</i> , 0, , .	0.6	3
84	Identification Using Classification Analysis of Flunitrazepam in Necrophagous Larvae via Differential Pulse Voltammetry and Fluorescence Excitation-Emission Matrix (EEM) Spectroscopy. <i>Journal of the Brazilian Chemical Society</i> , 2018, , .	0.6	3
85	Colourimetric Determination of High-Density Lipoprotein (HDL) Cholesterol Using Red “Green” Blue Digital Colour Imaging. <i>Analytical Letters</i> , 2018, 51, 2860-2867.	1.8	3
86	Machine Learning Approach Using a Handheld Near-Infrared (NIR) Device to Predict the Effect of Storage Conditions on Tomato Biomarkers. <i>ACS Food Science &amp; Technology</i> , 2022, 2, 187-194.	2.7	3
87	Quantification of Synthetic Amino-Nitroquinoxaline Dyes: An Approach Using Image Analysis. <i>Journal of the Brazilian Chemical Society</i> , 2016, , .	0.6	2
88	Attenuated total reflection Fourier-transform infrared spectroscopy coupled with chemometrics directly detects pre- and post-symptomatic changes in tomato plants infected with <i>Botrytis cinerea</i> . <i>Vibrational Spectroscopy</i> , 2020, 111, 103171.	2.2	2
89	Discrimination of oesophageal transformation stages to adenocarcinoma in human tissue samples using Raman microspectroscopy. <i>Vibrational Spectroscopy</i> , 2020, 111, 103141.	2.2	2
90	Spectroscopy of blood samples for the diagnosis of endometrial cancer and classification of its different subtypes.. <i>Journal of Clinical Oncology</i> , 2017, 35, 5596-5596.	1.6	2

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91	Identification of diabetic patients via urine analysis by FTIR: preliminary study (Conference) Tj ETQq1 1 0.784314 rgBT /Overlqck 10 Tf5		
92	The role of T-cells in neurobehavioural development: Insights from the immunodeficient nude mice. Behavioural Brain Research, 2022, 418, 113629.	2.2	2
93	A Low-Cost Video-Based Reflectometer for Selective Detection of Cu <sup>2+</sup> Using Paper-Based Colorimetric Sensors. Journal of the Brazilian Chemical Society, 0, , .	0.6	1
94	Vibrational spectroscopy in protein research toward virus identification: challenges, new research, and future perspectives. , 2020, , 315-335.		1
95	Spectrochemical determination of effects on rat liver of binary exposure to benzo[ a ]pyrene and 2,2â€²,4,4â€²-tetrabromodiphenyl ether. Journal of Applied Toxicology, 2021, 41, 1816-1825.	2.8	1
96	A computational protocol for sample selection in biological-derived infrared spectroscopy datasets using Moraes-Lima-Martin (MLM) algorithm. Protocol Exchange, 0, , .	0.3	1
97	[P1â€²246]: VIBRATIONAL SPECTROSCOPY OF BLOOD PLASMA FOR THE DIAGNOSIS OF ALZHEIMER'S DISEASE AND DIFFERENTIATION FROM DEMENTIA WITH LEWY BODIES. Alzheimer's and Dementia, 2017, 13, P340.	0.8	0
98	Determination of meningioma brain tissue grades using Raman hyperspectral imaging. Neuro-Oncology, 2019, 21, iv5-iv6.	1.2	0
99	Predicting meningioma recurrence using spectrochemical analysis of tissues and subsequent predictive computational algorithms. Neuro-Oncology, 2019, 21, iv5-iv5.	1.2	0
100	P4â€²547: IDENTIFYING SPECTRAL MARKERS FOR THE DIFFERENTIAL DIAGNOSIS OF DEMENTIA IN BIOFLUIDS AND BUCCAL CELLS. Alzheimer's and Dementia, 2019, 15, P1526.	0.8	0
101	EP857â€²...Distinguishing benign vs. cancer states in ovary based on spectrochemical analysis of ascites: a budget omics approach. , 2019, , .		0
102	Detecting Endometrial Cancer by Blood Spectroscopy: A Diagnostic Cross-Sectional Study. SSRN Electronic Journal, 0, , .	0.4	0
103	Laparoscopic cholecystectomy for mild acute gallstone pancreatitis-indication itself is a good predictor of (minimal) intraoperative difficulty-a retrospective cohort study. Turkish Journal of Surgery, 2021, 37, 103-108.	0.5	0
104	Clinical applications of spectroscopic techniques in conjunction with multivariate analysis in virus diagnosis. Biomedical Spectroscopy and Imaging, 2021, , 1-27.	1.2	0