Maria Fernanda Pimentel

List of Publications by Year in Descending Order

108 papers	**2,310** citations	**26** h-index	**42** g-index
116 ext. papers	**2,586** ext. citations	**4.5** avg, IF	**4.98** L-index

#	Paper	IF	Citations
108	Simulation of the soybean oil hydrotreating process for green diesel production **2022**, 100004		2
107	Hierarchical classification models and Handheld NIR spectrometer to human blood stains identification on different floor tiles. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2022**, 267, 120533	4.4	0
106	Handheld near infrared spectrometer and machine learning methods applied to the monitoring of multiple process stages in industrial sugar production. *Food Chemistry*, **2022**, 369, 130919	8.5	1
105	Calibration with virtual standards for monitoring biodiesel production using a miniature NIR spectrometer.. *Talanta*, **2022**, 243, 123329	6.2	0
104	Infrared spectroscopy for document dating - Advantages, challenges and limitations. *Talanta Open*, **2022**, 5, 100102	5.6	0
103	A single model to monitor multistep craft beer manufacturing using near infrared spectroscopy and chemometrics. *Food and Bioproducts Processing*, **2021**, 126, 95-103	4.9	3
102	Evaluation of a handheld ultra-compact NIR spectrometer for rapid and non-destructive determination of apple fruit quality. *Postharvest Biology and Technology*, **2021**, 172, 111375	6.2	15
101	Preliminary study on the identification of synthetic cathinones in street seized samples by Raman spectroscopy and chemometrics. *Journal of Raman Spectroscopy*, **2021**, 52, 901-913	2.3	3
100	Hierarchical method and hyperspectral images for classification of blood stains on colored and printed fabrics. *Chemometrics and Intelligent Laboratory Systems*, **2021**, 210, 104253	3.8	2
99	Multivariate statistical optimization of the ethanol fuel dehydration process using ionic liquids. *Chemical Industry and Chemical Engineering Quarterly*, **2021**, 27, 165-176	0.7	1
98	Quality by design applied to olanzapine and quetiapine LC-MS/MS bioanalysis. *Journal of Chromatographic Science*, **2020**, 58, 117-126	1.4	0
97	Detection and identification of Cannabis sativa L. using near infrared hyperspectral imaging and machine learning methods. A feasibility study. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2020**, 237, 118385	4.4	11
96	A green analytical method for the analysis of polycyclic aromatic hydrocarbons in oral fluids from crack smokers. *Bioanalysis*, **2020**, 12, 1711-1724	2.1	
95	Ultrasonic nebulization inductively coupled plasma optical emission spectrometry method for wine analysis. *Spectrochimica Acta, Part B: Atomic Spectroscopy*, **2020**, 170, 105924	3.1	5
94	Application of luminescent markers to ammunition encoding in forensic routine using a Video Spectral Comparator (VSC). *Microchemical Journal*, **2020**, 159, 105362	4.8	1
93	Identification of Luminescent Markers for Gunshot Residues: Fluorescence, Raman Spectroscopy, and Chemometrics. *Analytical Chemistry*, **2019**, 91, 12444-12452	7.8	14
92	Raman hyperspectral imaging and a novel approach for objective determination of the order of crossing ink lines. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2019**, 223, 117287	4.4	3

91	Revising the synthesis of Stöber silica nanoparticles: A multivariate assessment study on the effects of reaction parameters on the particle size. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2019**, 577, 1-7	5.1	23
90	Evaluating the potential of near infrared hyperspectral imaging associated with multivariate data analysis for examining crossing ink lines. *Forensic Science International*, **2019**, 298, 169-176	2.6	8
89	NIR-based octane rating simulator for use in gasoline compounding processes. *Fuel*, **2019**, 243, 381-389	7.1	12
88	Vibrational Spectroscopy and Chemometrics in Forensic Chemistry: Critical Review, Current Trends and Challenges. *Journal of the Brazilian Chemical Society*, **2019**,	1.5	5
87	Handheld near-infrared spectrometer for on-line monitoring of biodiesel production in a continuous process. *Fuel*, **2019**, 254, 115680	7.1	9
86	Chemometric approaches for document dating: Handling paper variability. *Analytica Chimica Acta*, **2018**, 1031, 28-37	6.6	22
85	OPTIMIZATION OF THE EXTRACTION OF FREE FATTY ACIDS APPLIED TO BIODIESEL PRODUCTION. *Brazilian Journal of Chemical Engineering*, **2018**, 35, 327-340	1.7	7
84	Use of Infrared Spectroscopy and Near Infrared Hyperspectral Images to Evaluate Effects of Different Chemical Agents on PET Bottle Surface. *Materials Research*, **2018**, 21,	1.5	2
83	NIR hyperspectral images for identification of gunshot residue from tagged ammunition. *Analytical Methods*, **2018**, 10, 4711-4717	3.2	14
82	Evaluation and assessment of homogeneity in images. Part 2: Homogeneity assessment on single channel non-binary images. Blending end-point detection as example. *Chemometrics and Intelligent Laboratory Systems*, **2018**, 180, 15-25	3.8	6
81	Dispersive liquid-liquid microextraction based on solidification of floating organic drop and high-performance liquid chromatography to the analysis of cocaine and major adulterants in human urine. *Toxicology*, **2017**, 376, 102-112	4.4	23
80	Comprehensive near infrared study of Jatropha oil esterification with ethanol for biodiesel production. *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, **2017**, 170, 56-64	4.4	8
79	Standardization from a benchtop to a handheld NIR spectrometer using mathematically mixed NIR spectra to determine fuel quality parameters. *Analytica Chimica Acta*, **2017**, 954, 32-42	6.6	34
78	A Simple Device for Lens-to-Sample Distance Adjustment in Laser-Induced Breakdown Spectroscopy (LIBS). *Applied Spectroscopy*, **2017**, 71, 634-639	3.1	8
77	Evaluation and identification of blood stains with handheld NIR spectrometer. *Microchemical Journal*, **2017**, 133, 561-566	4.8	33
76	Comparing the analytical performances of Micro-NIR and FT-NIR spectrometers in the evaluation of acerola fruit quality, using PLS and SVM regression algorithms. *Talanta*, **2017**, 165, 112-116	6.2	102
75	Evaluation and assessment of homogeneity in images. Part 1: Unique homogeneity percentage for binary images. *Chemometrics and Intelligent Laboratory Systems*, **2017**, 171, 26-39	3.8	10
74	Critical review and trends in forensic investigations of crossing ink lines. *TrAC - Trends in Analytical Chemistry*, **2017**, 94, 54-69	14.6	19

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73	Detecting semen stains on fabrics using near infrared hyperspectral images and multivariate models. *TrAC - Trends in Analytical Chemistry*, **2017**, 95, 23-35	14.6	25
72	Projection pursuit and PCA associated with near and middle infrared hyperspectral images to investigate forensic cases of fraudulent documents. *Microchemical Journal*, **2017**, 130, 412-419	4.8	29
71	Multivariate statistical process control charts for batch monitoring of transesterification reactions for biodiesel production based on near-infrared spectroscopy. *Computers and Chemical Engineering*, **2016**, 94, 343-353	4	20
70	Rapid and non-destructive determination of quality parameters in the Tommy Atkins mango using a novel handheld near infrared spectrometer. *Food Chemistry*, **2016**, 197 Pt B, 1207-14	8.5	92
69	Determination of diethyleneglycol content and number of carboxylic end groups in poly(ethylene terephthalate) fibers using imaging and conventional near infrared spectroscopy. *Polymer Testing*, **2016**, 49, 15-21	4.5	5
68	Chromatographic and Spectrophotometric Analysis of Phenolic Compounds from Fruits of Libidibia ferrea Martius. *Pharmacognosy Magazine*, **2016**, 12, S285-91	0.8	16
67	NIR hyperspectral imaging to evaluate degradation in captopril commercial tablets. *European Journal of Pharmaceutics and Biopharmaceutics*, **2016**, 104, 180-8	5.7	11
66	Procrustes rotation as a diagnostic tool for projection pursuit analysis. *Analytica Chimica Acta*, **2015**, 877, 51-63	6.6	10
65	Quantification of biodiesel and adulteration with vegetable oils in diesel/biodiesel blends using portable near-infrared spectrometer. *Fuel*, **2015**, 160, 57-63	7.1	58
64	Determination of detergent and dispensant additives in gasoline by ring-oven and near infrared hypespectral imaging. *Analytica Chimica Acta*, **2015**, 863, 9-19	6.6	16
63	Quantitative analysis of mebendazole polymorphs in pharmaceutical raw materials using near-infrared spectroscopy. *Journal of Pharmaceutical and Biomedical Analysis*, **2015**, 115, 587-93	3.5	15
62	Calibration transfer employing univariate correction and robust regression. *Analytica Chimica Acta*, **2015**, 864, 1-8	6.6	17
61	A process analytical technology approach for the production of fixed-dose combination tablets of zidovudine and lamivudine using near infrared spectroscopy and chemical images. *Microchemical Journal*, **2015**, 118, 252-258	4.8	5
60	Determination of naphtha composition by near infrared spectroscopy and multivariate regression to control steam cracker processes. *Fuel Processing Technology*, **2015**, 131, 230-237	7.2	12
59	Near Infrared Spectroscopy Detection and Quantification of Herbal Medicines Adulterated with Sibutramine. *Journal of Forensic Sciences*, **2015**, 60, 1199-205	1.8	10
58	Classification of Brazilian and foreign gasolines adulterated with alcohol using infrared spectroscopy. *Forensic Science International*, **2015**, 253, 33-42	2.6	15
57	Antimicrobial activity of Ƀlapachone encapsulated into liposomes against meticillin-resistant Staphylococcus aureus and Cryptococcus neoformans clinical strains. *Journal of Global Antimicrobial Resistance*, **2015**, 3, 103-108	3.4	20
56	Near infrared hyperspectral imaging for forensic analysis of document forgery. *Analyst, The*, **2014**, 139, 5176-84	5	62

55	Determination of total mercury in nuts at ultratrace level. *Analytica Chimica Acta*, **2014**, 838, 13-9	6.6	11
54	Classification of gasoline as with or without dispersant and detergent additives using infrared spectroscopy and multivariate classification. *Fuel*, **2014**, 116, 151-157	7.1	36
53	In-line monitoring of the transesterification reactions for biodiesel production using NIR spectroscopy. *Fuel*, **2014**, 115, 46-53	7.1	32
52	Prediction of mechanical properties of poly(ethylene terephthalate) using infrared spectroscopy and multivariate calibration. *Journal of Applied Polymer Science*, **2013**, 127, 3441-3446	2.9	5
51	Classification of blue pen ink using infrared spectroscopy and linear discriminant analysis. *Microchemical Journal*, **2013**, 109, 122-127	4.8	67
50	Quantification of captopril disulphide as a degradation product in captopril tablets using near infrared spectroscopy and chemometrics. *Vibrational Spectroscopy*, **2012**, 62, 35-41	2.1	11
49	Detection of adulteration in hydrated ethyl alcohol fuel using infrared spectroscopy and supervised pattern recognition methods. *Talanta*, **2012**, 93, 129-34	6.2	53
48	Using near-infrared overtone regions to determine biodiesel content and adulteration of diesel/biodiesel blends with vegetable oils. *Analytica Chimica Acta*, **2012**, 716, 101-7	6.6	36
47	Multivariate treatment of LIBS data of prehistoric paintings. *Journal of the Brazilian Chemical Society*, **2012**, 23, 958-965	1.5	9
46	Screening analysis to detect adulteration in diesel/biodiesel blends using near infrared spectrometry and multivariate classification. *Talanta*, **2011**, 85, 2159-65	6.2	46
45	Simultaneous spectrophotometric determination of lamivudine and zidovudine in fixed dose combinations using multivariate calibration. *Quimica Nova*, **2011**, 34, 859-863	1.6	3
44	Simultaneous determination of BTX and total hydrocarbons in water employing near infrared spectroscopy and multivariate calibration. *Sensors and Actuators B: Chemical*, **2011**, 160, 691-697	8.5	13
43	Determination of phosphorus in biodiesel using FIA with spectrophotometric detection. *Fuel*, **2011**, 90, 3254-3258	7.1	13
42	A novel approach for development of a multivariate calibration model using a Doehlert experimental design: Application for prediction of key gasoline properties by Near-infrared Spectroscopy. *Chemometrics and Intelligent Laboratory Systems*, **2011**, 107, 185-193	3.8	16
41	Determining the quality of insulating oils using near infrared spectroscopy and wavelength selection. *Microchemical Journal*, **2011**, 98, 254-259	4.8	22
40	Chemical composition determination of complex organic-aqueous mixtures of alcohols, acetone, acetonitrile, hydrocarbons and water by near-infrared spectroscopy. *Vibrational Spectroscopy*, **2011**, 55, 172-182	2.1	7
39	Evaluation of a PVC sensing phase for determination of chlorinated hydrocarbons in water by mid-infrared spectroscopy. *Journal of the Brazilian Chemical Society*, **2011**, 22, 1470-1477	1.5	5
38	Multivariate calibration transfer employing variable selection and subagging. *Journal of the Brazilian Chemical Society*, **2010**, 21, 127-134	1.5	7

37	Prediction of properties of diesel/biodiesel blends by infrared spectroscopy and multivariate calibration. *Fuel*, **2010**, 89, 405-409	7.1	75
36	Infrared spectroscopy and multivariate calibration to monitor stability quality parameters of biodiesel. *Microchemical Journal*, **2010**, 96, 126-131	4.8	57
35	Determination of degree of polymerization of insulating paper using near infrared spectroscopy and multivariate calibration. *Vibrational Spectroscopy*, **2010**, 52, 154-157	2.1	21
34	Determination of mercury in rice by cold vapor atomic fluorescence spectrometry after microwave-assisted digestion. *Analytica Chimica Acta*, **2010**, 667, 43-8	6.6	72
33	Mineral composition of Lippia alba (Mill.) N.E. Brown leaves. *Journal of the Brazilian Chemical Society*, **2010**, 21, 1905-1909	1.5	2
32	Sensores óticos com deteçõ no infravermelho próximo e médio. *Quimica Nova*, **2009**, 32, 1635-1643	1.6	3
31	Gunshot residues: screening analysis by laser-induced breakdown spectroscopy. *Journal of the Brazilian Chemical Society*, **2009**, 20, 1887-1894	1.5	24
30	Effect of plasticizers on a PVC sensing phase for evaluation of water contamination by aromatic hydrocarbons and fuels using infrared spectroscopy. *Sensors and Actuators B: Chemical*, **2009**, 139, 222-230	8.5	12
29	Direct determination of iron and manganese in wine using the reference element technique and fast sequential multi-element flame atomic absorption spectrometry. *Talanta*, **2008**, 74, 699-702	6.2	35
28	Mineral composition of wheat flour consumed in Brazilian cities. *Journal of the Brazilian Chemical Society*, **2008**, 19, 935-942	1.5	28
27	A comparative study of calibration transfer methods for determination of gasoline quality parameters in three different near infrared spectrometers. *Analytica Chimica Acta*, **2008**, 611, 41-7	6.6	63
26	Spectrophotometric cocaine determination in a biphasic medium employing flow-batch sequential injection analysis. *Analytica Chimica Acta*, **2008**, 629, 98-103	6.6	15
25	A PVC sensing phase for determination of BTEX in water employing mid-infrared spectroscopy. *Vibrational Spectroscopy*, **2008**, 46, 39-44	2.1	15
24	Using principal component analysis to find the best calibration settings for simultaneous spectroscopic determination of several gasoline properties. *Fuel*, **2008**, 87, 3706-3709	7.1	24
23	Application of fractional factorial design to levan production by Zymomonas mobilis. *Brazilian Journal of Microbiology*, **2007**, 38, 45-51	2.2	31
22	Transferência de calibraõ em métodos multivariados. *Quimica Nova*, **2007**, 30, 1301-1312	1.6	23
21	Improving the detection limits of near infrared spectroscopy in the determination of aromatic hydrocarbons in water employing a silicone sensing phase. *Sensors and Actuators B: Chemical*, **2007**, 125, 229-233	8.5	30
20	A flow-batch internal standard procedure for iron determination in hydrated ethanol fuel by flame atomic absorption spectrometry. *Talanta*, **2006**, 70, 522-6	6.2	23

19	Assessment of infrared spectroscopy and multivariate techniques for monitoring the service condition of diesel-engine lubricating oils. *Talanta*, **2006**, 70, 344-52	6.2	56
18	Determination of biodiesel content when blended with mineral diesel fuel using infrared spectroscopy and multivariate calibration. *Microchemical Journal*, **2006**, 82, 201-206	4.8	140
17	Silicone sensing phase for detection of aromatic hydrocarbons in water employing near-infrared spectroscopy. *Analytical Chemistry*, **2005**, 77, 72-7	7.8	37
16	Robust modeling for multivariate calibration transfer by the successive projections algorithm. *Chemometrics and Intelligent Laboratory Systems*, **2005**, 76, 65-72	3.8	45
15	Simultaneous determination of pH, chloride and nickel in electroplating baths using sequential injection analysis. *Analytica Chimica Acta*, **2004**, 506, 197-202	6.6	19
14	Sequential injection analysis of chloride and nitrate in waters with improved accuracy using potentiometric detection. *Talanta*, **2004**, 63, 721-7	6.2	18
13	A solution to the wavelet transform optimization problem in multicomponent analysis. *Chemometrics and Intelligent Laboratory Systems*, **2003**, 66, 205-217	3.8	25
12	A linear semi-infinite programming strategy for constructing optimal wavelet transforms in multivariate calibration problems. *Journal of Chemical Information and Computer Sciences*, **2003**, 43, 928-33		16
11	Recomendações para calibração em química analítica: parte I. Fundamentos e calibração com um componente (calibração univariada). *Quimica Nova*, **2002**, 25, 856-865	1.6	5
10	Analytical curve or standard addition method: how to elect and design--a strategy applied to copper determination in sugarcane spirits using AAS. *Analyst, The*, **2002**, 127, 1520-5	5	19
9	Aspects of the successive projections algorithm for variable selection in multivariate calibration applied to plasma emission spectrometry. *Analytica Chimica Acta*, **2001**, 443, 107-115	6.6	74
8	l-Glutamate determination in food samples by flow-injection analysis. *Analytica Chimica Acta*, **2001**, 448, 207-213	6.6	21
7	Estudo comparativo sobre filtragem de sinais instrumentais usando transformadas de Fourier e Wavelet. *Quimica Nova*, **2001**, 24, 874-884	1.6	5
6	Macroalgae as lead trapping agents in industrial effluents - a factorial design analysis. *Journal of the Brazilian Chemical Society*, **2001**, 12, 499-506	1.5	5
5	Effects of experimental design on calibration curve precision in routine analysis. *Journal of Automated Methods and Management in Chemistry*, **1998**, 20, 9-15		1
4	Conversion of a sequential inductively coupled plasma emission spectrometer into a multichannel simultaneous system using a photodiode array detector. *Journal of Automated Methods and Management in Chemistry*, **1998**, 20, 69-75		4
3	Simultaneous multielemental determination using a low-resolution inductively coupled plasma spectrometer/diode array detection system. *Spectrochimica Acta, Part B: Atomic Spectroscopy*, **1997**, 52, 2151-2161	3.1	7
2	Application of factorial design to improve a FIA system for penicillin determination. *Analytica Chimica Acta*, **1997**, 350, 353-357	6.6	18

1   Determination of Ethanol in Gel Hand Sanitizers Using Mid and Near Infrared Spectroscopy. *Journal of the Brazilian Chemical Society*,   1.5   5

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