

# Maria Soledad Larrechi

## List of Publications by Year in descending order

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77  
papers

2,103  
citations

279798

23  
h-index

243625

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77  
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77  
docs citations

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times ranked

2382  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and quantitative analysis of water association in ethylammonium nitrate mixtures using soft modeling resolution of NIR spectra and molecular dynamics simulations. <i>Journal of Molecular Liquids</i> , 2021, 327, 114789.	4.9	1
2	Quantitative analysis of the interaction of ammonia with 1-(2-hydroxyethyl)-3-methylimidazolium tetrafluoroborate ionic liquid. Understanding the volumetric and transport properties of their mixtures. <i>Journal of Molecular Liquids</i> , 2020, 301, 112440.	4.9	4
3	Ranking the solubility of ammonia in ionic liquids using near infrared spectroscopy and multivariate curve resolution. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019, 215, 88-96.	3.9	7
4	Quantitative analysis of free water in ionic liquid-water mixtures. <i>Talanta</i> , 2019, 199, 407-414.	5.5	9
5	Comprehensive near infrared study of Jatropha oil esterification with ethanol for biodiesel production. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2017, 170, 56-64.	3.9	10
6	A method based on near-infrared spectroscopy for the in-situ determination of the ammonia concentration in ammonia/water mixtures in an absorber test bench. <i>Talanta</i> , 2017, 175, 528-534.	5.5	4
7	Implementing a method based on near infrared spectroscopy for the in-situ determination of ammonia/water composition in an absorber test bench. <i>Journal of Physics: Conference Series</i> , 2016, 745, 032106.	0.4	0
8	Polybenzoxazine foams: Modeling mechanical properties. <i>Journal of Cellular Plastics</i> , 2016, 52, 657-669.	2.4	0
9	Determination of Free Water Concentration in Lithium Salt Solutions by Multivariate Curve Resolution of near Infrared Spectra. <i>NIR News</i> , 2016, 27, 11-13.	0.3	0
10	Quantitative analysis of the hydration of lithium salts in water using multivariate curve resolution of near-infrared spectra. <i>Analytica Chimica Acta</i> , 2016, 919, 20-27.	5.4	30
11	Determining the composition of ammonia/water mixtures using short-wave near-infrared spectroscopy. <i>Talanta</i> , 2016, 147, 111-116.	5.5	6
12	Simultaneous Determination of Organic Dyes Using Second-Order Data. <i>Data Handling in Science and Technology</i> , 2015, 29, 399-426.	3.1	5
13	Quantitative analysis of the effect of zidovudine, efavirenz, and ritonavir on insulin aggregation by multivariate curve resolution alternating least squares of infrared spectra. <i>Analytica Chimica Acta</i> , 2013, 760, 16-24.	5.4	13
14	UV-visible-DAD and 1H-NMR spectroscopy data fusion for studying the photodegradation process of azo-dyes using MCR-ALS. <i>Talanta</i> , 2013, 117, 75-80.	5.5	33
15	Phosphorus flame retardant polybenzoxazine foams based on renewable diphenolic acid. <i>Polymer Degradation and Stability</i> , 2013, 98, 2617-2626.	5.8	45
16	MCR-ALS analysis of insulin aggregation/association processes. Influence of biochemical variables. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2013, 127, 49-54.	3.5	2
17	Chemometrics analysis of insulin aggregation induced by an antiretroviral drug (AZT). <i>Chemometrics and Intelligent Laboratory Systems</i> , 2012, 118, 180-186.	3.5	1
18	Evaluation of the adsorption and rate constants of a photocatalytic degradation by means of HS-MCR-ALS. Study of process variables using experimental design. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2012, 114, 64-71.	3.5	18

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19	Aza-Michael reaction with enone-modified vegetable oils: evidence of the keto-enolic equilibrium by NIR chemical imaging and evolving factor analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 1975-1982.	3.7	1
20	Polybenzoxazines from renewable diphenolic acid. <i>Journal of Polymer Science Part A</i> , 2011, 49, 1219-1227.	2.3	111
21	Kinetic analysis of C.I. Acid Yellow 9 photooxidative decolorization by UV-visible and chemometrics. <i>Journal of Hazardous Materials</i> , 2011, 190, 986-992.	12.4	12
22	Analysing the Temperature Effect on the Competitiveness of the Amine Addition versus the Amidation Reaction in the Epoxidized Oil/Amine System by MCR-ALS of FTIR Data. <i>International Journal of Analytical Chemistry</i> , 2011, 2011, 1-10.	1.0	6
23	Spectroscopic and Quantitative Chemometric Analysis of the Epoxidised Oil/Amine System. <i>Journal of Near Infrared Spectroscopy</i> , 2010, 18, 281-290.	1.5	3
24	Modelling of the simultaneous photodegradation of Acid Red 97, Acid Orange 61 and Acid Brown 425 using factor screening and response surface strategies. <i>Journal of Hazardous Materials</i> , 2010, 180, 474-480.	12.4	20
25	An analytical overview of processes for removing organic dyes from wastewater effluents. <i>TrAC - Trends in Analytical Chemistry</i> , 2010, 29, 1202-1211.	11.4	201
26	Determination of sulphate in water and biodiesel samples by a sequential injection analysis-Multivariate curve resolution method. <i>Analytica Chimica Acta</i> , 2010, 676, 28-33.	5.4	22
27	Spectroscopic Evidence of the Mechanism Involved in the Cationic Diglycidyl Ether of Bisphenol A Curing with Rare Earth Metal Triflates. <i>Applied Spectroscopy</i> , 2010, 64, 104-111.	2.2	7
28	A Methodology to Estimate Concentration Profiles from Two-Dimensional Covariance Spectroscopy Applied to Kinetic Data. <i>Applied Spectroscopy</i> , 2010, 64, 177-186.	2.2	4
29	Sequential injection titration method using second-order signals: Determination of acidity in plant oils and biodiesel samples. <i>Talanta</i> , 2010, 81, 1572-1577.	5.5	17
30	Multisyringe chromatography (MSC) using a monolithic column for the determination of sulfonated azo dyes. <i>Talanta</i> , 2010, 82, 137-142.	5.5	17
31	Chemometric resolution of NIR spectra data of a model aza-Michael reaction with a combination of local rank exploratory analysis and multivariate curve resolution-alternating least squares (MCR-ALS) method. <i>Analytica Chimica Acta</i> , 2009, 642, 148-154.	5.4	9
32	MCR-ALS for sequential estimation of FTIR-ATR spectra to resolve a curing process using global phase angle convergence criterion. <i>Analytica Chimica Acta</i> , 2009, 642, 155-162.	5.4	22
33	Study of the influential factors in the simultaneous photocatalytic degradation process of three textile dyes. <i>Talanta</i> , 2009, 79, 1292-1297.	5.5	36
34	Rapid and quantitative evaluation of the effect of process variables on the kinetics of photocatalytic degradation of phenol using experimental design techniques and parallel factor (PARAFAC) analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 1203-1207.	3.7	8
35	Multivariate curve resolution-alternating least squares (MCR-ALS) applied to spectroscopic data from monitoring chemical reactions processes. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 390, 2059-2066.	3.7	219
36	Two-dimensional Fourier transform infrared correlation spectroscopy and evolving factor analysis in the study of cationic curing of DGEBA and $\gamma$ -valerolactone mixtures. <i>Journal of Polymer Science Part A</i> , 2008, 46, 3886-3899.	2.3	7

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37	Synthesis and study of the thermal crosslinking of bis( <i>m</i> -aminophenyl) methylphosphine oxide based benzoxazine. <i>Journal of Polymer Science Part A</i> , 2008, 46, 7162-7172.	2.3	39
38	Spectroscopic and quantitative analysis of spiroorthoester synthesis by two-dimensional correlation and multivariate curve resolution methods of NIR data. <i>Analyst, The</i> , 2008, 133, 1028.	3.5	6
39	PARAFAC and MCR-ALS applied to the quantitative monitoring of the photodegradation process of polycyclic aromatic hydrocarbons using three-dimensional excitation emission fluorescent spectra Comparative results with HPLC. <i>Talanta</i> , 2007, 71, 1703-1709.	5.5	41
40	Resolution of phenol, and its di-hydroxyderivative mixtures by excitation-emission fluorescence using MCR-ALS Application to the quantitative monitoring of phenol photodegradation. <i>Talanta</i> , 2007, 72, 800-807.	5.5	26
41	Kinetic and adsorption study of acid dye removal using activated carbon. <i>Chemosphere</i> , 2007, 69, 1151-1158.	8.2	292
42	Near infrared spectroscopy and multivariate curve resolution-Alternating least squares incorporating <sup>13</sup> C-NMR information for monitoring epoxy resins reactions. <i>Journal of Chemometrics</i> , 2007, 21, 263-269.	1.3	3
43	Kinetic analysis of reactions of Si-based epoxy resins by near-infrared spectroscopy, <sup>13</sup> C NMR and soft-hard modelling. <i>Analytica Chimica Acta</i> , 2007, 583, 392-401.	5.4	13
44	Validation of the concentration profiles obtained from the near infrared/multivariate curve resolution monitoring of reactions of epoxy resins using high performance liquid chromatography as a reference method. <i>Analytica Chimica Acta</i> , 2007, 585, 277-285.	5.4	19
45	Multivariate Curve Resolution-Alternating Least Squares and Kinetic Modeling Applied to Near-Infrared Data from Curing Reactions of Epoxy Resins: Mechanistic Approach and Estimation of Kinetic Rate Constants. <i>Applied Spectroscopy</i> , 2006, 60, 174-181.	2.2	10
46	Curing reaction of glycidylthioether resins: Kinetic model study by near infrared spectroscopy and multivariate curve resolution. <i>Journal of Polymer Science Part A</i> , 2006, 44, 4846-4856.	2.3	10
47	Reactivity of silicon-based epoxy monomers as studied by near-infrared spectroscopy and multivariate curve resolution methods. <i>Journal of Polymer Science Part A</i> , 2006, 44, 1447-1456.	2.3	14
48	Determination of phenol in the presence of its principal degradation products in water during a TiO <sub>2</sub> -photocatalytic degradation process by three-dimensional excitation-emission matrix fluorescence and parallel factor analysis. <i>Analytica Chimica Acta</i> , 2006, 559, 240-247.	5.4	39
49	Chromium speciation using sequential injection analysis and multivariate curve resolution. <i>Analytica Chimica Acta</i> , 2006, 571, 129-135.	5.4	15
50	Simultaneous analysis of the photocatalytic degradation of polycyclic aromatic hydrocarbons using three-dimensional excitation-emission matrix fluorescence and parallel factor analysis. <i>Analytica Chimica Acta</i> , 2006, 576, 184-191.	5.4	30
51	Calculation of band boundaries of feasible solutions obtained by Multivariate Curve Resolution-Alternating Least Squares of multiple runs of a reaction monitored by NIR spectroscopy. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2005, 76, 111-120.	3.5	41
52	Multivariate resolution of rank-deficient near-infrared spectroscopy data from the reaction of curing epoxy resins using the rank augmentation strategy and multivariate curve resolution alternating least squares approach. <i>Analytica Chimica Acta</i> , 2004, 515, 65-73.	5.4	57
53	Spectra and Concentration Profiles Throughout the Reaction of Curing Epoxy Resins from Near-Infrared Spectroscopy and Multivariate Curve Resolution Methods. <i>Applied Spectroscopy</i> , 2004, 58, 47-53.	2.2	28
54	Modeling of Complex Viscosity Changes in the Curing of Epoxy Resins from Near-Infrared Spectroscopy and Multivariate Regression Analysis. <i>Applied Spectroscopy</i> , 2004, 58, 1424-1430.	2.2	2

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55	Strategy for introducing NIR spectroscopy and multivariate calibration techniques in industry. <i>TrAC - Trends in Analytical Chemistry</i> , 2003, 22, 634-640.	11.4	54
56	Near-infrared spectroscopy and multivariate calibration for the quantitative determination of certain properties in the petrochemical industry. <i>TrAC - Trends in Analytical Chemistry</i> , 2002, 21, 799-806.	11.4	89
57	Outlier Detection in the Ethylene Content Determination in Propylene Copolymer by Near-Infrared Spectroscopy and Multivariate Calibration. <i>Applied Spectroscopy</i> , 2001, 55, 1532-1536.	2.2	12
58	Monitoring ethylene content in heterophasic copolymers by near-infrared spectroscopy. <i>Analytica Chimica Acta</i> , 2001, 445, 213-220.	5.4	37
59	Multivariate detection limits with fixed probabilities of error. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1999, 45, 397-408.	3.5	64
60	Multivariate determination of several compositional parameters related to the content of hydrocarbon in naphtha by MIR spectroscopy. <i>Analyst, The</i> , 1999, 124, 1827-1831.	3.5	15
61	On-line automated analytical signal diagnosis in sequential injection analysis systems using artificial neural networks. <i>Analytica Chimica Acta</i> , 1997, 348, 113-127.	5.4	13
62	Figures of merit in multivariate calibration. Determination of four pesticides in water by flow injection analysis and spectrophotometric detection. <i>Analytica Chimica Acta</i> , 1997, 348, 167-175.	5.4	24
63	New chemometric tools to study the origin of amphorae produced in the Roman Empire. <i>TrAC - Trends in Analytical Chemistry</i> , 1996, 15, 137-151.	11.4	19
64	Expert system for the voltammetric determination of trace metals. <i>Analytica Chimica Acta</i> , 1994, 285, 377-389.	5.4	13
65	Expert system for the voltammetric determination of trace metals. <i>Analytica Chimica Acta</i> , 1994, 285, 193-208.	5.4	25
66	Automatic simultaneous determination of Ca and Mg in natural waters with no interference separation. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1994, 24, 55-63.	3.5	20
67	Expert system for the voltammetric determination of trace metals. <i>Analytica Chimica Acta</i> , 1993, 284, 435-443.	5.4	11
68	Chemometric characterization of 5th century A.D. amphora-producing centres in the Mediterranean. <i>Talanta</i> , 1993, 40, 1749-1757.	5.5	12
69	Computer-aided voltammetric method development employing a knowledge-based expert system. <i>TrAC - Trends in Analytical Chemistry</i> , 1992, 11, 135-142.	11.4	8
70	Expert system for the voltammetric determination of trace metals. <i>Analytica Chimica Acta</i> , 1992, 268, 95-105.	5.4	26
71	Expert system for the voltammetric determination of trace metals. <i>Analytica Chimica Acta</i> , 1992, 268, 107-114.	5.4	17
72	Teaching chemistry with expert systems: Systematic chemical separation of cations in aqueous media. <i>Journal of Chemical Education</i> , 1991, 68, 659.	2.3	3

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73	Factor Analysis for Assigning Sources of Groundwater Pollution. International Journal of Environmental Analytical Chemistry, 1990, 38, 389-397.	3.3	4
74	Metals in coastal waters of Santa Cruz de Tenerife, Canary Islands. Marine Pollution Bulletin, 1990, 21, 91-95.	5.0	15
75	The application of multivariate techniques to data from spanish glass-making objects from the Roman Era. Analytica Chimica Acta, 1989, 225, 69-81.	5.4	9
76	Cluster Analysis as a Tool in the Study of Groundwater Quality. International Journal of Environmental Analytical Chemistry, 1988, 32, 255-268.	3.3	11
77	Multivariate data analysis applied to the definition of two Catalan viticultural regions I. Cluster analysis. Zeitschrift Fur Lebensmittel-Untersuchung Und -Forschung, 1987, 185, 181-184.	0.6	7