

# Romã Tauler

## List of Publications by Year in descending order

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Version: 2024-02-01

47  
papers

1,958  
citations

279798

23  
h-index

254184

43  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2658  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of the variable importance in projection (VIP) and of the selectivity ratio (SR) methods for variable selection and interpretation. <i>Journal of Chemometrics</i> , 2015, 29, 528-536.	1.3	402
2	Data analysis strategies for targeted and untargeted LC-MS metabolomic studies: Overview and workflow. <i>TrAC - Trends in Analytical Chemistry</i> , 2016, 82, 425-442.	11.4	240
3	Chemometrics in analytical chemistry—part II: modeling, validation, and applications. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 6691-6704.	3.7	102
4	Assessment of endocrine disruptors effects on zebrafish ( <i>Danio rerio</i> ) embryos by untargeted LC-HRMS metabolomic analysis. <i>Science of the Total Environment</i> , 2018, 635, 156-166.	8.0	97
5	Chemometrics in analytical chemistry—part I: history, experimental design and data analysis tools. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 5891-5899.	3.7	95
6	Detection of Olive Oil Adulteration Using FT-IR Spectroscopy and PLS with Variable Importance of Projection (VIP) Scores. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2012, 89, 1807-1812.	1.9	90
7	Untargeted Comprehensive Two-Dimensional Liquid Chromatography Coupled with High-Resolution Mass Spectrometry Analysis of Rice Metabolome Using Multivariate Curve Resolution. <i>Analytical Chemistry</i> , 2017, 89, 7675-7683.	6.5	72
8	Is independent component analysis appropriate for multivariate resolution in analytical chemistry?. <i>TrAC - Trends in Analytical Chemistry</i> , 2012, 31, 134-143.	11.4	68
9	Application of Multivariate Curve Resolution Alternating Least Squares (MCR-ALS) to remote sensing hyperspectral imaging. <i>Analytica Chimica Acta</i> , 2013, 762, 25-38.	5.4	58
10	Trilinearity and component interaction constraints in the multivariate curve resolution investigation of NO and O3 pollution in Barcelona. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 2015-2029.	3.7	50
11	Chemometric analysis of comprehensive two dimensional gas chromatography—mass spectrometry metabolomics data. <i>Journal of Chromatography A</i> , 2017, 1488, 113-125.	3.7	48
12	Influence of minerals on the taste of bottled and tap water: A chemometric approach. <i>Water Research</i> , 2013, 47, 693-704.	11.3	43
13	Metabolomic analysis of the effects of cadmium and copper treatment in <i>Oryza sativa</i> L. using untargeted liquid chromatography coupled to high resolution mass spectrometry and all-ion fragmentation. <i>Metallomics</i> , 2017, 9, 660-675.	2.4	43
14	LC-MS based metabolomics and chemometrics study of the toxic effects of copper on <i>Saccharomyces cerevisiae</i> . <i>Metallomics</i> , 2016, 8, 790-798.	2.4	42
15	Phenotypic malignant changes and untargeted lipidomic analysis of long-term exposed prostate cancer cells to endocrine disruptors. <i>Environmental Research</i> , 2015, 140, 18-31.	7.5	36
16	Chemometric analysis of comprehensive LC—LC-MS data: Resolution of triacylglycerol structural isomers in corn oil. <i>Talanta</i> , 2016, 160, 624-635.	5.5	34
17	Handling Different Spatial Resolutions in Image Fusion by Multivariate Curve Resolution-Alternating Least Squares for Incomplete Image Multisets. <i>Analytical Chemistry</i> , 2018, 90, 6757-6765.	6.5	31
18	Application of the area correlation constraint in the MCR-ALS quantitative analysis of complex mixture samples. <i>Analytica Chimica Acta</i> , 2020, 1113, 52-65.	5.4	31

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19	Multivariate Curve Resolution for Quantitative Analysis. <i>Data Handling in Science and Technology</i> , 2015, 29, 247-292.	3.1	30
20	Application of maximum likelihood multivariate curve resolution to noisy data sets. <i>Journal of Chemometrics</i> , 2013, 27, 34-41.	1.3	28
21	Exploring the interaction between O <sub>3</sub> and NO <sub>x</sub> pollution patterns in the atmosphere of Barcelona, Spain using the MCR-ALS method. <i>Science of the Total Environment</i> , 2015, 517, 151-161.	8.0	26
22	Quantifying the Prediction Error in Analytical Multivariate Curve Resolution Studies of Multicomponent Systems. <i>Analytical Chemistry</i> , 2018, 90, 7040-7047.	6.5	26
23	Validation of the Regions of Interest Multivariate Curve Resolution (ROIMCR) procedure for untargeted LC-MS lipidomic analysis. <i>Analytica Chimica Acta</i> , 2018, 1025, 80-91.	5.4	25
24	Non-target protein analysis of samples from wastewater treatment plants using the regions of interest-multivariate curve resolution (ROIMCR) chemometrics method. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105752.	6.7	20
25	Untangling comprehensive two-dimensional liquid chromatography data sets using regions of interest and multivariate curve resolution approaches. <i>TrAC - Trends in Analytical Chemistry</i> , 2021, 137, 116207.	11.4	18
26	Compression of multidimensional NMR spectra allows a faster and more accurate analysis of complex samples. <i>Chemical Communications</i> , 2018, 54, 3090-3093.	4.1	17
27	N-BANDS: A new algorithm for estimating the extension of feasible bands in multivariate curve resolution of multicomponent systems in the presence of noise and rotational ambiguity. <i>Journal of Chemometrics</i> , 2021, 35, e3317.	1.3	17
28	Comparative analysis of <sup>1</sup> H NMR and <sup>1</sup> H- <sup>13</sup> C HSQC NMR metabolomics to understand the effects of medium composition in yeast growth. <i>Analytical Chemistry</i> , 2018, 90, 12422-12430.	6.5	16
29	Untargeted assignment and automatic integration of <sup>1</sup> H NMR metabolomic datasets using a multivariate curve resolution approach. <i>Analytica Chimica Acta</i> , 2017, 964, 55-66.	5.4	14
30	Deciphering the Underlying Metabolomic and Lipidomic Patterns Linked to Thermal Acclimation in <i>Saccharomyces cerevisiae</i> . <i>Journal of Proteome Research</i> , 2018, 17, 2034-2044.	3.7	14
31	Evaluation of the extension of rotation ambiguity associated to multivariate curve resolution solutions by the application of the MCR-BANDS method. <i>Talanta</i> , 2019, 202, 554-564.	5.5	14
32	Multivariate curve resolution of multiway data using the multilinearity constraint. <i>Journal of Chemometrics</i> , 2021, 35, e3279.	1.3	14
33	Assessment of the effects of As(III) treatment on cyanobacteria lipidomic profiles by LC-MS and MCR-ALS. <i>Analytical and Bioanalytical Chemistry</i> , 2016, 408, 5829-5841.	3.7	12
34	Local rank-based spatial information for improvement of remote sensing hyperspectral imaging resolution. <i>Talanta</i> , 2016, 146, 1-9.	5.5	12
35	Untargeted lipidomic analysis of primary human epidermal melanocytes acutely and chronically exposed to UV radiation. <i>Molecular Omics</i> , 2018, 14, 170-180.	2.8	11
36	Adverse Effects of Arsenic Uptake in Rice Metabolome and Lipidome Revealed by Untargeted Liquid Chromatography Coupled to Mass Spectrometry (LC-MS) and Regions of Interest Multivariate Curve Resolution. <i>Separations</i> , 2022, 9, 79.	2.4	10

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37	Non-targeted Gas Chromatography Orbitrap Mass Spectrometry qualitative and quantitative analysis of semi-volatile organic compounds in indoor dust using the Regions of Interest Multivariate Curve Resolution chemometrics procedure. <i>Journal of Chromatography A</i> , 2022, 1668, 462907.	3.7	9
38	Chemometric evaluation of different experimental conditions on wheat ( <i>Triticum aestivum</i> L.) development using liquid chromatography mass spectrometry (LC-MS) profiles of benzoxazinone derivatives. <i>Analytica Chimica Acta</i> , 2012, 731, 24-31.	5.4	8
39	Chemometric evaluation of hydrophilic interaction liquid chromatography stationary phases: resolving complex mixtures of metabolites. <i>Analytical Methods</i> , 2017, 9, 774-785.	2.7	8
40	Extraction of climatic signals from fossil organic compounds in marine sediments up to 11.7Ma old (IODP-U1318). <i>Analytica Chimica Acta</i> , 2015, 879, 1-9.	5.4	7
41	Multivariate analysis of the operational parameters and environmental factors of an industrial solar pond. <i>Solar Energy</i> , 2021, 223, 113-124.	6.1	6
42	Understanding temporal and spatial changes of O <sub>3</sub> or NO <sub>2</sub> concentrations combining multivariate data analysis methods and air quality transport models. <i>Science of the Total Environment</i> , 2022, 806, 150923.	8.0	6
43	Monitoring biodiesel and its intermediates in transesterification reactions with multivariate curve resolution alternating least squares calibration models. <i>Fuel</i> , 2021, 283, 119275.	6.4	3
44	Quantification strategies for two-dimensional liquid chromatography datasets using regions of interest and multivariate curve resolution approaches. <i>Talanta</i> , 2022, 247, 123586.	5.5	3
45	An underground strategy to increase mercury tolerance in the salt marsh halophyte <i>Juncus maritimus</i> Lam.: Lipid remodelling and Hg restriction. <i>Environmental and Experimental Botany</i> , 2021, 191, 104619.	4.2	2
46	European Analytical Column No. 42. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 3525-3529.	3.7	0
47	European analytical column number 42. <i>Accreditation and Quality Assurance</i> , 2014, 19, 225-229.	0.8	0