

# MarÃ-a Castro Puyana

## List of Publications by Year in descending order

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91  
papers

3,127  
citations

147801

31  
h-index

182427

51  
g-index

95  
all docs

95  
docs citations

95  
times ranked

3446  
citing authors

#	ARTICLE	IF	CITATIONS
1	Compressed fluids for the extraction of bioactive compounds. <i>TrAC - Trends in Analytical Chemistry</i> , 2013, 43, 67-83.	11.4	267
2	Chiral capillary electrophoresis. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 124, 115807.	11.4	147
3	Extraction and Characterization of Bioactive Compounds with Health Benefits from Marine Resources: Macro and Micro Algae, Cyanobacteria, and Invertebrates. , 2012, , 55-98.		132
4	Metabolomics approaches based on mass spectrometry for food safety, quality and traceability. <i>TrAC - Trends in Analytical Chemistry</i> , 2013, 52, 74-87.	11.4	123
5	Global Foodomics strategy to investigate the health benefits of dietary constituents. <i>Journal of Chromatography A</i> , 2012, 1248, 139-153.	3.7	107
6	Water as green extraction solvent: Principles and reasons for its use. <i>Current Opinion in Green and Sustainable Chemistry</i> , 2017, 5, 31-36.	5.9	103
7	Metabolomics, peptidomics and proteomics applications of capillary electrophoresis-mass spectrometry in Foodomics: A review. <i>Analytica Chimica Acta</i> , 2013, 802, 1-13.	5.4	97
8	Application of mass spectrometry-based metabolomics approaches for food safety, quality and traceability. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 93, 102-118.	11.4	85
9	Recent advances in the application of capillary electromigration methods for food analysis and Foodomics. <i>Electrophoresis</i> , 2012, 33, 147-167.	2.4	80
10	Optimization of clean extraction methods to isolate carotenoids from the microalga <i>Neochloris oleoabundans</i> and subsequent chemical characterization using liquid chromatography tandem mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 4607-4616.	3.7	80
11	Recent advances in the application of capillary electromigration methods for food analysis and Foodomics. <i>Electrophoresis</i> , 2014, 35, 147-169.	2.4	69
12	About the role of enantioselective selector-selectand interactions and the mobilities of diastereomeric associates in enantiomer separations using CE. <i>Electrophoresis</i> , 2009, 30, 2803-2811.	2.4	66
13	Recent advances in the application of capillary electromigration methods for food analysis and Foodomics. <i>Electrophoresis</i> , 2018, 39, 136-159.	2.4	65
14	Pressurized liquid extraction of <i>Neochloris oleoabundans</i> for the recovery of bioactive carotenoids with anti-proliferative activity against human colon cancer cells. <i>Food Research International</i> , 2017, 99, 1048-1055.	6.2	61
15	Enantioseparation by Capillary Electrophoresis Using Ionic Liquids as Chiral Selectors. <i>Critical Reviews in Analytical Chemistry</i> , 2018, 48, 429-446.	3.5	59
16	Recovering Bioactive Compounds from Olive Oil Filter Cake by Advanced Extraction Techniques. <i>International Journal of Molecular Sciences</i> , 2014, 15, 16270-16283.	4.1	52
17	Life cycle assessment of green pilot-scale extraction processes to obtain potent antioxidants from rosemary leaves. <i>Journal of Supercritical Fluids</i> , 2012, 72, 205-212.	3.2	51
18	Determination of l- and d-carnitine in dietary food supplements using capillary electrophoresis-tandem mass spectrometry. <i>Food Chemistry</i> , 2010, 120, 921-928.	8.2	48

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19	Recent approaches in sensitive enantioseparations by CE. <i>Electrophoresis</i> , 2012, 33, 228-242.	2.4	47
20	Reprint of: Application of mass spectrometry-based metabolomics approaches for food safety, quality and traceability. <i>TrAC - Trends in Analytical Chemistry</i> , 2017, 96, 62-78.	11.4	46
21	Amino acid chiral ionic liquids combined with hydroxypropyl- $\beta$ -cyclodextrin for drug enantioseparation by capillary electrophoresis. <i>Journal of Chromatography A</i> , 2019, 1607, 460375.	3.7	46
22	Chiral Discrimination of DL-Amino Acids by Trapped Ion Mobility Spectrometry after Derivatization with (+)-1-(9-Fluorenyl)ethyl Chloroformate. <i>Analytical Chemistry</i> , 2019, 91, 3277-3285.	6.5	46
23	Supercritical antisolvent fractionation of rosemary extracts obtained by pressurized liquid extraction to enhance their antiproliferative activity. <i>Journal of Supercritical Fluids</i> , 2016, 107, 581-589.	3.2	45
24	Development of a CE-MS <sup>2</sup> method for the enantiomeric separation of L/D-carnitine: Application to the analysis of infant formulas. <i>Electrophoresis</i> , 2009, 30, 337-348.	2.4	44
25	Potential of vancomycin for the enantiomeric resolution of FMOCAmino acids by capillary electrophoresis-mass spectrometry. <i>Electrophoresis</i> , 2014, 35, 1244-1250.	2.4	41
26	Effect of the combined use of $\beta$ -cyclodextrin and a chiral ionic liquid on the enantiomeric separation of homocysteine by capillary electrophoresis. <i>Journal of Chromatography A</i> , 2018, 1568, 222-228.	3.7	39
27	Enantioselective separation ofazole compounds by EKC. Reversal of migration order of enantiomers with CD concentration. <i>Electrophoresis</i> , 2007, 28, 2667-2674.	2.4	38
28	Recent advances in the analysis of antibiotics by CE and CEC. <i>Electrophoresis</i> , 2008, 29, 274-293.	2.4	37
29	Capillary electrophoresis determination of non-protein amino acids as quality markers in foods. <i>Journal of Chromatography A</i> , 2016, 1428, 97-114.	3.7	36
30	Detection of saffron adulteration with gardenia extracts through the determination of geniposide by liquid chromatography-mass spectrometry. <i>Journal of Food Composition and Analysis</i> , 2017, 55, 30-37.	3.9	35
31	Formation and relevance of 5-hydroxymethylfurfural in bioactive subcritical water extracts from olive leaves. <i>Food Research International</i> , 2012, 47, 31-37.	6.2	34
32	Recent advances in the analysis of antibiotics by CE and CEC. <i>Electrophoresis</i> , 2010, 31, 229-250.	2.4	33
33	Revalorization of <i>Neochloris oleoabundans</i> biomass as source of biodiesel by concurrent production of lipids and carotenoids. <i>Algal Research</i> , 2014, 5, 16-22.	4.6	32
34	Enantiomeric separation of ivabradine by cyclodextrin-electrokinetic chromatography. Effect of amino acid chiral ionic liquids. <i>Journal of Chromatography A</i> , 2019, 1608, 460407.	3.7	31
35	Enantiomeric separation of ketoconazole and terconazole antifungals by electrokinetic chromatography: Rapid quantitative analysis of ketoconazole in pharmaceutical formulations. <i>Electrophoresis</i> , 2005, 26, 3960-3968.	2.4	30
36	Fast Determination of Sudan Dyes in Chilli Tomato Sauces Using Partial Filling Micellar Electrokinetic Chromatography. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 11903-11909.	5.2	29

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37	Use of choline chloride-D-sorbitol deep eutectic solvent as additive in cyclodextrin-electrokinetic chromatography for the enantiomeric separation of lacosamide. <i>Microchemical Journal</i> , 2021, 160, 105669.	4.5	28
38	Identification and quantitation of cis-ketoconazole impurity by capillary zone electrophoresis-mass spectrometry. <i>Journal of Chromatography A</i> , 2006, 1114, 170-177.	3.7	25
39	Enantiomeric separation of bupropion enantiomers by electrokinetic chromatography: Quantitative analysis in pharmaceutical formulations. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 875, 260-265.	2.3	25
40	A novel method for the quality control of saffron through the simultaneous analysis of authenticity and adulteration markers by liquid chromatography-(quadrupole-time of flight)-mass spectrometry. <i>Food Chemistry</i> , 2017, 228, 403-410.	8.2	25
41	Analysis of antibiotics by CE and CEC and their use as chiral selectors: An update. <i>Electrophoresis</i> , 2018, 39, 235-259.	2.4	25
42	A non-targeted metabolomic approach based on reversed-phase liquid chromatography-mass spectrometry to evaluate coffee roasting process. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 7859-7870.	3.7	25
43	Separation of enantiomers of deprenyl with various CDs in CE and the effect of enantiomer migration order on enantiomeric impurity determination of selegiline in active ingredients and tablets. <i>Electrophoresis</i> , 2007, 28, 388-394.	2.4	24
44	CE methods for the determination of non-protein amino acids in foods. <i>Electrophoresis</i> , 2007, 28, 4031-4045.	2.4	24
45	Comprehensive metabolomic study of the response of HK-2 cells to hyperglycemic hypoxic diabetic-like milieu. <i>Scientific Reports</i> , 2021, 11, 5058.	3.3	24
46	Chiral Micellar Electrokinetic Chromatography. <i>Journal of Chromatography A</i> , 2020, 1626, 461383.	3.7	23
47	Determination of betaines in vegetable oils by capillary electrophoresis tandem mass spectrometry application to the detection of olive oil adulteration with seed oils. <i>Electrophoresis</i> , 2011, 32, 1394-1401.	2.4	22
48	Enantiomeric separation of the antiuremic drug colchicine by electrokinetic chromatography. Method development and quantitative analysis. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2017, 138, 189-196.	2.8	22
49	Isolation of proteins from spent coffee grounds. Polyphenol removal and peptide identification in the protein hydrolysates by RP-HPLC-ESI-Q-TOF. <i>Food Research International</i> , 2020, 137, 109368.	6.2	22
50	Enantiomeric determination of econazole and sulconazole by electrokinetic chromatography using hydroxypropyl- $\beta$ -cyclodextrin combined with ionic liquids based on L-lysine and L-glutamic acid. <i>Journal of Chromatography A</i> , 2020, 1621, 461085.	3.7	22
51	Sensitized phosphorescence as detection method for the enantioseparation of bupropion by capillary electrophoresis. <i>Electrophoresis</i> , 2010, 31, 3928-3936.	2.4	21
52	Strategies for a cleaner new scientific discipline of green foodomics. <i>TrAC - Trends in Analytical Chemistry</i> , 2013, 52, 23-35.	11.4	21
53	Nuclear magnetic resonance to study the interactions acting in the enantiomeric separation of homocysteine by capillary electrophoresis with a dual system of $\beta$ -cyclodextrin and the chiral ionic liquid EtCholNTf <sub>2</sub> . <i>Electrophoresis</i> , 2019, 40, 1913-1920.	2.4	21
54	Enantiomeric separation of homocysteine and cysteine by electrokinetic chromatography using mixtures of $\beta$ -cyclodextrin and carnitine-based ionic liquids. <i>Microchemical Journal</i> , 2020, 157, 105070.	4.5	21

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55	Capillary electrophoresis-mass spectrometry metabolic fingerprinting of green and roasted coffee. <i>Journal of Chromatography A</i> , 2019, 1605, 360353.	3.7	19
56	Separation and quantitation of the four stereoisomers of itraconazole in pharmaceutical formulations by electrokinetic chromatography. <i>Electrophoresis</i> , 2006, 27, 887-895.	2.4	18
57	Sensitive and fast determination of Sudan dyes in chilli powder by partial filling micellar electrokinetic chromatography-tandem mass spectrometry. <i>Electrophoresis</i> , 2012, 33, 705-712.	2.4	18
58	An untargeted metabolomic strategy based on liquid chromatography-mass spectrometry to study high glucose-induced changes in HK-2 cells. <i>Journal of Chromatography A</i> , 2019, 1596, 124-133.	3.7	18
59	CHAPTER 6. Supercritical Fluid Extraction. <i>RSC Green Chemistry</i> , 2013, , 196-230.	0.1	16
60	Untargeted HILIC-MS-Based Metabolomics Approach to Evaluate Coffee Roasting Process: Contributing to an Integrated Metabolomics Multiplatform. <i>Molecules</i> , 2020, 25, 887.	3.8	16
61	Simultaneous separation of epinephrine and norepinephrine enantiomers by EKC: Application to the analysis of pharmaceutical formulations. <i>Electrophoresis</i> , 2009, 30, 2947-2954.	2.4	14
62	Subcritical water extraction of bioactive components from algae. , 2013, , 534-560.		14
63	Enantiomeric separation of non-protein amino acids by electrokinetic chromatography. <i>Journal of Chromatography A</i> , 2016, 1467, 409-416.	3.7	14
64	Use of single and dual systems of $\beta$ -cyclodextrin or $\beta$ -cyclodextrin/L-Carnitine derived ionic liquid for the enantiomeric determination of cysteine by electrokinetic chromatography. A comparative study. <i>Microchemical Journal</i> , 2021, 169, 106596.	4.5	13
65	Quenched phosphorescence as alternative detection mode in the chiral separation of methotrexate by electrokinetic chromatography. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 400, 2913-2919.	3.7	12
66	Advances in the Determination of Nonprotein Amino Acids in Foods and Biological Samples by Capillary Electrophoresis. <i>Critical Reviews in Analytical Chemistry</i> , 2019, 49, 459-475.	3.5	12
67	Enantiomeric separation of prothioconazole and prothioconazole-desthio by Capillary Electrophoresis. Degradation studies in environmental samples. <i>Journal of Chromatography A</i> , 2021, 1651, 462255.	3.7	12
68	The first contribution of capillary electrophoresis to the study of abiotic origins of homochirality: Investigation of the enantioselective adsorption of 3-carboxy adipic acid on minerals. <i>Electrophoresis</i> , 2008, 29, 1548-1555.	2.4	11
69	A Non-Targeted Capillary Electrophoresis-Mass Spectrometry Strategy to Study Metabolic Differences in an In Vitro Model of High-Glucose Induced Changes in Human Proximal Tubular HK-2 Cells. <i>Molecules</i> , 2020, 25, 512.	3.8	11
70	High resolution liquid chromatography tandem mass spectrometry for the separation and identification of peptides in coffee silverskin protein hydrolysates. <i>Microchemical Journal</i> , 2019, 149, 103951.	4.5	10
71	A capillary micellar electrokinetic chromatography method for the stereoselective quantitation of bioallethrin in biotic and abiotic samples. <i>Journal of Chromatography A</i> , 2017, 1510, 108-116.	3.7	9
72	Simultaneous enantioselective separation of polychlorinated biphenyls and their methyl sulfone metabolites by heart MDGC: Determination of enantiomeric fractions in fish oils and cow liver samples. <i>Chirality</i> , 2012, 24, 577-583.	2.6	8

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73	A micellar electrokinetic chromatography approach using diastereomeric derivatization and a volatile surfactant for the enantioselective separation of selenomethionine. <i>Electrophoresis</i> , 2019, 40, 1951-1958.	2.4	8
74	Separation and identification of peptides in hydrolysed protein extracts from edible macroalgae by HPLC-ESI-QTOF/MS. <i>Algal Research</i> , 2019, 39, 101465.	4.6	8
75	Synthesis and characterization of carnitine-based ionic liquids and their evaluation as additives in cyclodextrin-electrokinetic chromatography for the chiral separation of thiol amino acids. <i>Journal of Chromatography A</i> , 2022, 1670, 462955.	3.7	8
76	Polyphenols analysis and related challenges. , 2018, , 177-232.		7
77	Derivatization in Capillary Electrophoresis. <i>Methods in Molecular Biology</i> , 2016, 1483, 37-52.	0.9	6
78	Chiral Capillary Electrophoresis-Mass Spectrometry. <i>Methods in Molecular Biology</i> , 2019, 1985, 391-405.	0.9	6
79	A rapid electrokinetic chromatography method using short-end injection for the enantioselective separation of tryptophan. <i>Microchemical Journal</i> , 2021, 168, 106508.	4.5	6
80	Compositional Analysis of Foods. , 2013, , 295-317.		4
81	Compositional analysis of foods. , 2017, , 359-380.		4
82	Time-series proteomic study of the response of HK-2 cells to hyperglycemic, hypoxic diabetic-like milieu. <i>PLoS ONE</i> , 2020, 15, e0235118.	2.5	4
83	Electrophoretic Technique: Capillary Zone Electrophoresis. , 2018, , 659-685.		3
84	Exploratory Metabolomic Analysis Based on Reversed-Phase Liquid Chromatography-Mass Spectrometry to Study an In Vitro Model of Hypoxia-Induced Metabolic Alterations in HK-2 Cells. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7399.	4.1	3
85	Chiral Analysis of Non-Protein Amino Acids by Capillary Electrophoresis. <i>Methods in Molecular Biology</i> , 2019, 2030, 277-291.	0.9	2
86	Rapid and simultaneous determination of polychlorinated biphenyls and their main metabolites (hydroxylated and methyl sulfonyl) by gas chromatography coupled to mass spectrometry: Comparison of different ionisation modes. <i>Analytica Chimica Acta</i> , 2013, 787, 148-154.	5.4	1
87	Pressure hot water processing of food and natural products. , 2019, , 193-220.		1
88	Chiral Capillary Electrophoresis in Food Analysis. <i>Current and Future Developments in Food Science</i> , 2022, , 291-320.	0.1	1
89	Advanced Analytical Tools to Reveal Food-Health Associations. , 2021, , 542-557.		0
90	Capillary Electrophoresis: Chiral Separations. , 2018, , 334-334.		0

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91	Amino Acid Analysis by Capillary Electromigration Methods. Current and Future Developments in Food Science, 2022, , 147-173.	0.1	0