

Maria Chiara Pietrogrande

List of Publications by Year in descending order

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83
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2,307
citations

186265
28
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243625
44
g-index

83
all docs

83
docs citations

83
times ranked

2585
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of aqueous secondary organic aerosol from biomass-burning emissions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10013-10018.	7.1	243
2	Spot overlapping in two-dimensional maps: A serious problem ignored for much too long. Proteomics, 2005, 5, 2385-2395.	2.2	130
3	Determination of synthetic phenolic antioxidants and their metabolites in water samples by downscaled solid-phase extraction, silylation and gas chromatography-mass spectrometry. Journal of Chromatography A, 2010, 1217, 6428-6435.	3.7	125
4	Urban PM2.5 oxidative potential: Importance of chemical species and comparison of two spectrophotometric cell-free assays. Environmental Pollution, 2016, 219, 72-79.	7.5	103
5	GC-MS analytical methods for the determination of personal-care products in water matrices. TrAC - Trends in Analytical Chemistry, 2007, 26, 1086-1094.	11.4	78
6	Gas chromatography-mass spectrometry analysis of amino acid enantiomers as methyl chloroformate derivatives: Application to space analysis. Journal of Chromatography A, 2007, 1150, 162-172.	3.7	65
7	Seasonal variation and source estimation of organic compounds in urban aerosol of Augsburg, Germany. Environmental Pollution, 2011, 159, 1861-1868.	7.5	57
8	PM2.5 and PM10 oxidative potential at a Central Mediterranean Site: Contrasts between dithiothreitol- and ascorbic acid-measured values in relation with particle size and chemical composition. Atmospheric Environment, 2019, 210, 143-155.	4.1	48
9	A Quantitative Theory of the Statistical Degree of Peak Overlapping in Chromatography. Analytical Chemistry, 1998, 70, 766-773.	6.5	46
10	Spot overlapping in two-dimensional polyacrylamide gel electrophoresis separations: A statistical study of complex protein maps. Electrophoresis, 2002, 23, 283-291.	2.4	46
11	Polar organic marker compounds in atmospheric aerosol in the Po Valley during the Supersito campaigns - Part 2: Seasonal variations of sugars. Atmospheric Environment, 2014, 97, 215-225.	4.1	46
12	Fourier analysis of multicomponent chromatograms. Application to experimental chromatograms. Analytical Chemistry, 1993, 65, 2209-2222.	6.5	45
13	GC-MS analysis of low-molecular-weight dicarboxylic acids in atmospheric aerosol: comparison between silylation and esterification derivatization procedures. Analytical and Bioanalytical Chemistry, 2010, 396, 877-885.	3.7	45
14	PM10 oxidative potential at a Central Mediterranean Site: Association with chemical composition and meteorological parameters. Atmospheric Environment, 2018, 188, 97-111.	4.1	44
15	Review of PM Oxidative Potential Measured with Acellular Assays in Urban and Rural Sites across Italy. Atmosphere, 2019, 10, 626.	2.3	43
16	Spot overlapping in two-dimensional polyacrylamide gel electrophoresis maps: Relevance to proteomics. Electrophoresis, 2003, 24, 217-224.	2.4	42
17	Optimization of a SPME/GC/MS Method for the Simultaneous Determination of Pharmaceuticals and Personal Care Products in Waters. Chromatographia, 2012, 75, 361-370.	1.3	42
18	Peer Reviewed: Decoding Complex Multicomponent Chromatograms. Analytical Chemistry, 2001, 73, 618 A-626 A.	6.5	39

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19	Chemical composition and oxidative potential of atmospheric coarse particles at an industrial and urban background site in the alpine region of northern Italy. <i>Atmospheric Environment</i> , 2018, 191, 340-350.	4.1	34
20	Distribution of <i>n</i> -Alkanes in the Northern Italy Aerosols: Data Handling of GC-MS Signals for Homologous Series Characterization. <i>Environmental Science & Technology</i> , 2010, 44, 4232-4240.	10.0	33
21	Polar organic marker compounds in atmospheric aerosol in the Po Valley during the Supersito campaigns " Part 1: Low molecular weight carboxylic acids in cold seasons. <i>Atmospheric Environment</i> , 2014, 86, 164-175.	4.1	33
22	Analysis of complex mixtures recovered from space missions. <i>Journal of Chromatography A</i> , 2001, 939, 69-77.	3.7	32
23	Decoding Two-Dimensional Complex Multicomponent Separations by Autocovariance Function. <i>Analytical Chemistry</i> , 2004, 76, 3055-3068.	6.5	32
24	Characterization of atmospheric aerosols in the Po valley during the supersito campaigns " Part 3: Contribution of wood combustion to wintertime atmospheric aerosols in Emilia Romagna region (Northern Italy). <i>Atmospheric Environment</i> , 2015, 122, 291-305.	4.1	32
25	Characteristics and major sources of carbonaceous aerosols in PM _{2.5} in Emilia Romagna Region (Northern Italy) from four-year observations. <i>Science of the Total Environment</i> , 2016, 553, 172-183.	8.0	32
26	Ascorbate assay as a measure of oxidative potential for ambient particles: Evidence for the importance of cell-free surrogate lung fluid composition. <i>Atmospheric Environment</i> , 2019, 211, 103-112.	4.1	32
27	In situ analysis of the Martian soil by gas chromatography: Decoding of complex chromatograms of organic molecules of exobiological interest. <i>Journal of Chromatography A</i> , 2005, 1071, 255-261.	3.7	29
28	Decoding 2D-PAGE complex maps: Relevance to proteomics". <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2006, 833, 51-62.	2.3	29
29	Indoor Air Quality in Domestic Environments during Periods Close to Italian COVID-19 Lockdown. <i>International Journal of Environmental Research and Public Health</i> , 2021, 18, 4060.	2.6	29
30	Study of the lipophilic character of xanthine and adenosine derivatives. <i>Journal of Chromatography A</i> , 1990, 498, 179-190.	3.7	28
31	Enantiomeric resolution of biomarkers in space analysis: Chemical derivatization and signal processing for gas chromatography-mass spectrometry analysis of chiral amino acids. <i>Journal of Chromatography A</i> , 2010, 1217, 1126-1133.	3.7	28
32	Temperature effect on HPLC retention of PCBs on porous graphitic carbon. <i>Chromatographia</i> , 2000, 51, 193-198.	1.3	24
33	GC-MS analysis of water-soluble organics in atmospheric aerosol: Response surface methodology for optimizing silyl-derivatization for simultaneous analysis of carboxylic acids and sugars. <i>Analytica Chimica Acta</i> , 2011, 689, 257-264.	5.4	24
34	High-performance liquid chromatographic determination of naphthols as 4-aminoantipyrine derivatives. <i>Journal of Chromatography A</i> , 1985, 349, 63-68.	3.7	23
35	HRGC separation performance evaluation by a simplified fourier analysis approach. <i>Journal of High Resolution Chromatography</i> , 1996, 19, 327-332.	1.4	23
36	Characterization of new types of stationary phases for fast and ultra-fast liquid chromatography by signal processing based on AutoCovariance Function: A case study of application to <i>Passiflora incarnata</i> L. extract separations. <i>Journal of Chromatography A</i> , 2010, 1217, 4355-4364.	3.7	23

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37	GC/MS analysis of water-soluble organics in atmospheric aerosol: optimization of a solvent extraction procedure for simultaneous analysis of carboxylic acids and sugars. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 1095-1104.	3.7	20
38	Relationship between the chromatographic behaviour of dermorphin-related oligopeptides and the composition of the mobile phase in reversed-phase thin-layer chromatography: comparison of extrapolated RF values. <i>Journal of Chromatography A</i> , 1984, 287, 259-270.	3.7	19
39	Decoding two-dimensional polyacrylamide gel electrophoresis complex maps by autocovariance function: A simplified approach useful for proteomics. <i>Electrophoresis</i> , 2005, 26, 2739-2748.	2.4	19
40	Study of the lipophilic character of a series of β^2 -carbolines. <i>Journal of Chromatography A</i> , 1989, 469, 121-126.	3.7	18
41	Retention Behavior of Benzodiazepines in Normal-Phase HPLC. Silica, Cyano, and Amino Phases Comparison. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1988, 11, 1313-1333.	1.0	17
42	HPLC analysis of PCBs on porous graphitic carbon: Retention behavior and gradient elution. <i>Chromatographia</i> , 2000, 52, 425-432.	1.3	17
43	Enantioselective separation of amino acids as biomarkers indicating life in extraterrestrial environments. <i>Analytical and Bioanalytical Chemistry</i> , 2013, 405, 7931-7940.	3.7	17
44	Octadecyl, Phenyl and Cyano Phases Comparison for the RP-HPLC Prediction of Octanol-Water Partition Coefficient. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1987, 10, 1065-1075.	1.0	16
45	Identification and Quantification of Homologous Series of Compound in Complex Mixtures: An Autocovariance Study of GC/MS Chromatograms. <i>Analytical Chemistry</i> , 2006, 78, 2579-2592.	6.5	16
46	Effect of filter extraction solvents on the measurement of the oxidative potential of airborne PM2.5. <i>Environmental Science and Pollution Research</i> , 2021, 28, 29551-29563.	5.3	16
47	Signal processing to evaluate parameters affecting SPE for multi-residue analysis of personal care products. <i>Journal of Separation Science</i> , 2009, 32, 1249-1261.	2.5	15
48	Chemical characterization of polar organic markers in aerosols in a local area around Bologna, Italy. <i>Atmospheric Environment</i> , 2013, 75, 279-286.	4.1	15
49	R _m Values, retention times and R _f values of a series of potentially mutagenic nitroimidazo[2,1-b]thiazoles. <i>Journal of Chromatography A</i> , 1985, 320, 281-291.	3.7	14
50	Decoding of complex isothermal chromatograms: Application to chromatograms recovered from space missions. <i>Journal of Separation Science</i> , 2003, 26, 569-577.	2.5	14
51	Gas chromatographic-mass spectrometric analysis of di(2-ethylhexyl) phthalate and its metabolites in hepatic microsomal incubations. <i>Analytica Chimica Acta</i> , 2003, 480, 1-10.	5.4	14
52	Effects of different organic modifiers in optimization of reversed-phase high-performance liquid chromatographic gradient elution of a mixture of natural secoiridoid compounds. <i>Journal of Chromatography A</i> , 1989, 485, 631-645.	3.7	13
53	Decoding of complex isothermal chromatograms recovered from space missions. <i>Journal of Chromatography A</i> , 2003, 1002, 179-192.	3.7	13
54	Multi-residual GC-MS determination of personal care products in waters using solid-phase microextraction. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 2257-2265.	3.7	13

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55	Reversed-phase ion-pair systems to predict partition coefficients of β^2 -carbolines by HPLC and TLC. <i>Chromatographia</i> , 1987, 23, 713-716.	1.3	12
56	Characteristics of carbonaceous aerosols in Emilia-Romagna (Northern Italy) based on two fall/winter field campaigns. <i>Atmospheric Research</i> , 2016, 167, 100-107.	4.1	12
57	Chemical composition and oxidative potential of atmospheric particles heavily impacted by residential wood burning in the alpine region of northern Italy. <i>Atmospheric Environment</i> , 2021, 253, 118360.	4.1	12
58	Polycyclic aromatic hydrocarbons and their oxygenated derivatives in urban aerosol: levels, chemical profiles, and contribution to PM _{2.5} oxidative potential. <i>Environmental Science and Pollution Research</i> , 2022, 29, 54391-54406.	5.3	12
59	Statistical method to evaluate clean-up procedures in polychlorinated biphenyl analysis. <i>Analyst, The</i> , 1998, 123, 1199-1204.	3.5	11
60	Data handling of complex GC-MS chromatograms: characterization of n-alkane distribution as chemical marker in organic input source identification. <i>Analyst, The</i> , 2009, 134, 671.	3.5	11
61	Data handling of GC/MS signals for characterization of PAH sources in Northern Italy aerosols. <i>Talanta</i> , 2014, 120, 283-288.	5.5	11
62	Retention behaviour of selected flavonoid compounds in NP-HPLC. <i>Chromatographia</i> , 1989, 27, 625-627.	1.3	10
63	Signal processing of GC-MS data of complex environmental samples: Characterization of homologous series. <i>Analytica Chimica Acta</i> , 2007, 594, 128-138.	5.4	10
64	Influence of the mobile phase composition on the reversed-phase thin-layer chromatographic behaviour of a series of prostaglandins. <i>Journal of Chromatography A</i> , 1985, 347, 209-218.	3.7	9
65	On-Site Monitoring Indoor Air Quality in Schools: A Real-World Investigation to Engage High School Science Students. <i>Journal of Chemical Education</i> , 2020, 97, 4069-4072.	2.3	9
66	Correlations between high-performance liquid chromatographic retention, X-ray structural and ¹³ C NMR spectroscopic data of flavonoid compounds. <i>Journal of Chromatography A</i> , 1992, 592, 65-73.	3.7	8
67	Liquid chromatography time-of-flight mass spectrometry evaluation of fungicides reactivity in free chlorine containing water samples. <i>Journal of Mass Spectrometry</i> , 2013, 48, 216-226.	1.6	8
68	Determination of polar organic compounds in atmospheric aerosols by gas chromatography with ion trap tandem mass spectrometry. <i>Journal of Separation Science</i> , 2014, 37, 1561-1569.	2.5	8
69	Optimization of an ultrasound-assisted derivatization for GC/MS analysis of oxygenated organic species in atmospheric aerosol. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 4279-4291.	3.7	8
70	Synergistic and Antagonistic Effects of Aerosol Components on Its Oxidative Potential as Predictor of Particle Toxicity. <i>Toxics</i> , 2022, 10, 196.	3.7	8
71	Seasonal and Spatial Variations of PM ₁₀ and PM _{2.5} Oxidative Potential in Five Urban and Rural Sites across Lombardia Region, Italy. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 7778.	2.6	8
72	Determination of Lipophilic Character of a Series of Dermorphin-Related Oligopeptides by Means of Reversed-Phase HPLC. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1984, 7, 1495-1500.	1.0	7

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73	Retention behaviour of $\hat{\text{I}}^2$ -carbolines in normal-phase chromatography. <i>Journal of Chromatography A</i> , 1989, 471, 407-419.	3.7	7
74	Results of an interlaboratory comparison of analytical methods for quantification of anhydrosugars and biosugars in atmospheric aerosol. <i>Chemosphere</i> , 2017, 184, 269-277.	8.2	7
75	The influence of lipophilic character on receptor binding affinity of a series of $\hat{\text{I}}^2$ -carbolines. <i>Biochemical Pharmacology</i> , 1988, 37, 3953-3957.	4.4	6
76	Interpretation of chromatographic data recovered from space missions: decoding of complex chromatograms by Fourier analysis. <i>Planetary and Space Science</i> , 2003, 51, 581-590.	1.7	6
77	Oxidative Potential Sensitivity to Metals, Br, P, S, and Se in PM10 Samples: New Insights from a Monitoring Campaign in Southeastern Italy. <i>Atmosphere</i> , 2020, 11, 367.	2.3	4
78	Linear solvation energy relationships in the study of the solvatochromic properties and liquid chromatographic retention behaviour of benzodiazepines. <i>Journal of Chromatography A</i> , 1990, 522, 37-48.	3.7	3
79	GC-MS in Space Research: Decoding Complex Isothermal Chromatograms Recovered from Space Missions. <i>Annali Di Chimica</i> , 2004, 94, 721-732.	0.6	3
80	2D autocovariance function for comprehensive analysis of two-way GC-MS data matrix: Application to environmental samples. <i>Talanta</i> , 2011, 83, 1225-1232.	5.5	2
81	Gas Chromatography in Space Exploration. , 2012, , 711-720.		1
82	Gas chromatography in space exploration. , 2012, , 865-874.		1
83	Decoding 2-D Maps by Autocovariance Function. <i>Methods in Molecular Biology</i> , 2016, 1384, 39-53.	0.9	0