

# Robert E Synovec

## List of Publications by Year in descending order

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192  
papers

7,802  
citations

41344

49  
h-index

64796

79  
g-index

194  
all docs

194  
docs citations

194  
times ranked

4202  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dissolution behavior and surface tension effects of organic compounds in nucleating cloud droplets. <i>Geophysical Research Letters</i> , 1996, 23, 277-280.	4.0	429
2	Comprehensive Two-Dimensional High-Speed Gas Chromatography with Chemometric Analysis. <i>Analytical Chemistry</i> , 1998, 70, 2796-2804.	6.5	232
3	Cyclic changes in metabolic state during the life of a yeast cell. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 16886-16891.	7.1	232
4	Cardiac-Specific Deletion of Acetyl CoA Carboxylase 2 Prevents Metabolic Remodeling During Pressure-Overload Hypertrophy. <i>Circulation Research</i> , 2012, 111, 728-738.	4.5	214
5	High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis. <i>Journal of Chromatography A</i> , 2003, 996, 141-155.	3.7	182
6	Pattern recognition of jet fuels: comprehensive GC $\bar{A}$ -GC with ANOVA-based feature selection and principal component analysis. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2002, 60, 225-237.	3.5	178
7	Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry Analysis of Metabolites in Fermenting and Respiring Yeast Cells. <i>Analytical Chemistry</i> , 2006, 78, 2700-2709.	6.5	150
8	Classification of gasoline data obtained by gas chromatography using a piecewise alignment algorithm combined with feature selection and principal component analysis. <i>Journal of Chromatography A</i> , 2005, 1096, 101-110.	3.7	148
9	Multidimensional Gas Chromatography: Advances in Instrumentation, Chemometrics, and Applications. <i>Analytical Chemistry</i> , 2018, 90, 505-532.	6.5	147
10	Recent advancements in comprehensive two-dimensional separations with chemometrics. <i>Journal of Chromatography A</i> , 2008, 1184, 341-352.	3.7	146
11	Ultrafast Gas Chromatography on Single-Wall Carbon Nanotube Stationary Phases in Microfabricated Channels. <i>Analytical Chemistry</i> , 2006, 78, 5639-5644.	6.5	137
12	Fisher Ratio Method Applied to Third-Order Separation Data To Identify Significant Chemical Components of Metabolite Extracts. <i>Analytical Chemistry</i> , 2006, 78, 5068-5075.	6.5	135
13	Standardization of Second-Order Chromatographic/Spectroscopic Data for Optimum Chemical Analysis. <i>Analytical Chemistry</i> , 1998, 70, 218-225.	6.5	132
14	Review of chemometric analysis techniques for comprehensive two dimensional separations data. <i>Journal of Chromatography A</i> , 2012, 1255, 3-11.	3.7	132
15	Comprehensive Two-Dimensional Gas Chromatography and Chemometrics for the High-Speed Quantitative Analysis of Aromatic Isomers in a Jet Fuel Using the Standard Addition Method and an Objective Retention Time Alignment Algorithm. <i>Analytical Chemistry</i> , 2000, 72, 4154-4162.	6.5	127
16	A Comprehensive Two-Dimensional Retention Time Alignment Algorithm To Enhance Chemometric Analysis of Comprehensive Two-Dimensional Separation Data. <i>Analytical Chemistry</i> , 2005, 77, 7735-7743.	6.5	125
17	Objective Data Alignment and Chemometric Analysis of Comprehensive Two-Dimensional Separations with Run-to-Run Peak Shifting on Both Dimensions. <i>Analytical Chemistry</i> , 2001, 73, 5833-5840.	6.5	122
18	Comprehensive analysis of yeast metabolite GC $\bar{A}$ -GC $\bar{A}$ -TOFMS data: combining discovery-mode and deconvolution chemometric software. <i>Analyst, The</i> , 2007, 132, 756-767.	3.5	103

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19	A principal component analysis based method to discover chemical differences in comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry (GC-TOFMS) separations of metabolites in plant samples. <i>Talanta</i> , 2006, 70, 797-804.	5.5	102
20	Trilinear chemometric analysis of two-dimensional comprehensive gas chromatography-time-of-flight mass spectrometry data. <i>Journal of Chromatography A</i> , 2004, 1027, 269-277.	3.7	100
21	High-speed, temperature programmable gas chromatography utilizing a microfabricated chip with an improved carbon nanotube stationary phase. <i>Talanta</i> , 2009, 77, 1420-1425.	5.5	94
22	Parallel Factor Analysis (PARAFAC) of Target Analytes in GC-TOFMS Data: Automated Selection of a Model with an Appropriate Number of Factors. <i>Analytical Chemistry</i> , 2007, 79, 1611-1619.	6.5	90
23	Application of comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry method to identify potential biomarkers of perinatal asphyxia in a non-human primate model. <i>Journal of Chromatography A</i> , 2011, 1218, 1899-1906.	3.7	86
24	Recent advances in modulator technology for comprehensive two dimensional gas chromatography. <i>TrAC - Trends in Analytical Chemistry</i> , 2019, 113, 379-391.	11.4	82
25	Two-Dimensional Gas Chromatography and Trilinear Partial Least Squares for the Quantitative Analysis of Aromatic and Naphthene Content in Naphtha. <i>Analytical Chemistry</i> , 2001, 73, 5677-5682.	6.5	80
26	Comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry detection: analysis of amino acid and organic acid trimethylsilyl derivatives, with application to the analysis of metabolites in rye grass samples. <i>Talanta</i> , 2005, 65, 380-388.	5.5	80
27	Impurity Profiling of a Chemical Weapon Precursor for Possible Forensic Signatures by Comprehensive Two-Dimensional Gas Chromatography/Mass Spectrometry and Chemometrics. <i>Analytical Chemistry</i> , 2010, 82, 689-698.	6.5	78
28	Tile-Based Fisher Ratio Analysis of Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry (GC-TOFMS) Data Using a Null Distribution Approach. <i>Analytical Chemistry</i> , 2015, 87, 3812-3819.	6.5	76
29	Liquid chromatography-tandem quadrupole mass spectrometry and comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry measurement of targeted metabolites of <i>Methylobacterium extorquens</i> AM1 grown on two different carbon sources. <i>Journal of Chromatography A</i> , 2009, 1216, 3280-3289.	3.7	75
30	Monolayer-Protected Gold Nanoparticles as a Stationary Phase for Open Tubular Gas Chromatography. <i>Analytical Chemistry</i> , 2003, 75, 4558-4564.	6.5	71
31	Tile-based Fisher-ratio software for improved feature selection analysis of comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry data. <i>Talanta</i> , 2013, 115, 887-895.	5.5	71
32	Increasing the Number of Analyzable Peaks in Comprehensive Two-Dimensional Separations through Chemometrics. <i>Analytical Chemistry</i> , 2001, 73, 675-683.	6.5	69
33	Quantitative assessment of moisture damage for cacao bean quality using two-dimensional gas chromatography combined with time-of-flight mass spectrometry and chemometrics. <i>Journal of Chromatography A</i> , 2010, 1217, 1963-1970.	3.7	68
34	Comprehensive Three-Dimensional Gas Chromatography with Parallel Factor Analysis. <i>Analytical Chemistry</i> , 2007, 79, 8270-8280.	6.5	66
35	Handling within run retention time shifts in two-dimensional chromatography data using shift correction and modeling. <i>Journal of Chromatography A</i> , 2009, 1216, 4020-4029.	3.7	66
36	A Raman Waveguide Detector for Liquid Chromatography. <i>Analytical Chemistry</i> , 1999, 71, 4808-4814.	6.5	65

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37	Identification and evaluation of cycling yeast metabolites in two-dimensional comprehensive gas chromatography–time-of-flight-mass spectrometry data. <i>Journal of Chromatography A</i> , 2008, 1186, 401-411.	3.7	64
38	Development and application of a comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry method for the analysis of l- <sup>12</sup> -methylamino-alanine in human tissue. <i>Journal of Chromatography A</i> , 2010, 1217, 4639-4647.	3.7	64
39	Algorithm for locating analytes of interest based on mass spectral similarity in GC–GC–TOF-MS data: analysis of metabolites in human infant urine. <i>Journal of Chromatography A</i> , 2004, 1058, 209-215.	3.7	63
40	Second-order chemometric standardization for high-speed hyphenated gas chromatography: Analysis of GC/MS and comprehensive GC <sub>2</sub> /GC data. <i>Journal of Separation Science</i> , 1999, 11, 97-107.	1.0	61
41	Increasing selectivity in comprehensive three-dimensional gas chromatography via an ionic liquid stationary phase column in one dimension. <i>Journal of Chromatography A</i> , 2010, 1217, 3144-3149.	3.7	60
42	Enhancing the Limit of Detection for Comprehensive Two-Dimensional Gas Chromatography (GC–GC) using Bilinear Chemometric Analysis. <i>Journal of High Resolution Chromatography</i> , 2000, 23, 215-224.	1.4	58
43	Quantification of naphthalenes in jet fuel with GC–GC/Tri-PLS and windowed rank minimization retention time alignment. <i>Journal of Separation Science</i> , 2004, 27, 410-416.	2.5	58
44	Comprehensive two-dimensional gas chromatography of volatile and semi-volatile components using a diaphragm valve-based instrument. <i>Journal of Chromatography A</i> , 2003, 983, 195-204.	3.7	56
45	Monolayer-protected gold nanoparticles as an efficient stationary phase for open tubular gas chromatography using a square capillary. <i>Journal of Chromatography A</i> , 2004, 1029, 185-192.	3.7	54
46	Automated Resolution of Nontarget Analyte Signals in GC–GC-TOFMS Data Using Parallel Factor Analysis. <i>Analytical Chemistry</i> , 2008, 80, 6677-6688.	6.5	53
47	Multivariate selectivity as a metric for evaluating comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry subjected to chemometric peak deconvolution. <i>Journal of Chromatography A</i> , 2004, 1056, 145-54.	3.7	53
48	Observations on “Orthogonality” in Comprehensive Two-Dimensional Separations. <i>Analytical Chemistry</i> , 2007, 79, 7924-7927.	6.5	52
49	Improvement of the limit of detection in chromatography by an integration method. <i>Analytical Chemistry</i> , 1985, 57, 2162-2167.	6.5	51
50	Valve-based comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometric detection: instrumentation and figures-of-merit. <i>Journal of Chromatography A</i> , 2003, 1019, 79-87.	3.7	49
51	Toward automated peak resolution in complete GC–GC-TOFMS chromatograms by PARAFAC. <i>Journal of Chemometrics</i> , 2009, 23, 421-431.	1.3	49
52	Enhanced Chemical Analysis Using Parallel Column Gas Chromatography with Single-Detector Time-of-Flight Mass Spectrometry and Chemometric Analysis. <i>Analytical Chemistry</i> , 1999, 71, 1093-1099.	6.5	45
53	Data Analysis Methods. , 2012, , 415-434.		45
54	Time-Dependent Profiling of Metabolites from Snf1 Mutant and Wild Type Yeast Cells. <i>Analytical Chemistry</i> , 2008, 80, 8002-8011.	6.5	42

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55	Reversed Phase Liquid Chromatography of Organic Hydrocarbons with Water as the Mobile Phase. <i>Analytical Chemistry</i> , 1996, 68, 2838-2844.	6.5	41
56	Trends in chemometric analysis of comprehensive two-dimensional separations. <i>Analytical and Bioanalytical Chemistry</i> , 2004, 378, 1948-1951.	3.7	41
57	Classification of high-speed gas chromatography–mass spectrometry data by principal component analysis coupled with piecewise alignment and feature selection. <i>Journal of Chromatography A</i> , 2006, 1129, 111-118.	3.7	41
58	Chemical characterization of the acid alteration of diesel fuel: Non-targeted analysis by two-dimensional gas chromatography coupled with time-of-flight mass spectrometry with tile-based Fisher ratio and combinatorial threshold determination. <i>Journal of Chromatography A</i> , 2016, 1440, 179-190.	3.7	41
59	Comprehensive LC <sub>i</sub> ½GC for enhanced headspace analysis. <i>Journal of Separation Science</i> , 2000, 12, 160-166.	1.0	39
60	Development of a GC–GC–TOFMS method using SPME to determine volatile compounds in cacao beans. <i>Journal of Separation Science</i> , 2009, 32, 2289-2295.	2.5	39
61	Development of gas chromatographic pattern recognition and classification tools for compliance and forensic analyses of fuels: A review. <i>Analytica Chimica Acta</i> , 2020, 1132, 157-186.	5.4	39
62	GC–GC temperature programming requirements to produce bilinear data for chemometric analysis. <i>Journal of Separation Science</i> , 2002, 25, 297-303.	2.5	38
63	Correlation of rocket propulsion fuel properties with chemical composition using comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry followed by partial least squares regression analysis. <i>Journal of Chromatography A</i> , 2014, 1327, 132-140.	3.7	38
64	Characterization and utilization of a novel triflate ionic liquid stationary phase for use in comprehensive two-dimensional gas chromatography. <i>Journal of Separation Science</i> , 2008, 31, 3429-3436.	2.5	36
65	High-Speed Gas Chromatography Using Synchronized Dual-Valve Injection. <i>Analytical Chemistry</i> , 2004, 76, 3517-3524.	6.5	34
66	Performance evaluation of tile-based Fisher Ratio analysis using a benchmark yeast metabolome dataset. <i>Journal of Chromatography A</i> , 2016, 1459, 101-111.	3.7	34
67	Correlation of Quantitative Analysis Precision to Retention Time Precision and Chromatographic Resolution for Rapid, Short-Column Analysis. <i>Analytical Chemistry</i> , 1995, 67, 631-640.	6.5	33
68	High-speed gas chromatography: The importance of instrumentation optimization and the elimination of extra-column band broadening. <i>Talanta</i> , 2008, 76, 703-717.	5.5	33
69	Achieving high peak capacity production for gas chromatography and comprehensive two-dimensional gas chromatography by minimizing off-column peak broadening. <i>Journal of Chromatography A</i> , 2011, 1218, 3130-3139.	3.7	33
70	High-speed gas chromatographic separations with diaphragm valve-based injection and chemometric analysis as a gas chromatographic “sensor”. <i>Analytica Chimica Acta</i> , 2003, 490, 223-230.	5.4	32
71	Total-transfer, valve-based comprehensive two-dimensional gas chromatography. <i>Analytica Chimica Acta</i> , 2006, 555, 68-74.	5.4	30
72	Unsupervised parameter optimization for automated retention time alignment of severely shifted gas chromatographic data using the piecewise alignment algorithm. <i>Journal of Chromatography A</i> , 2007, 1141, 106-116.	3.7	30

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73	Chemometric analysis of gas chromatography–mass spectrometry data using fast retention time alignment via a total ion current shift function. <i>Talanta</i> , 2010, 81, 120-128.	5.5	29
74	Comprehensive Three-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 1793-1800.	6.5	29
75	Diffusion coefficient measurement in a microfluidic analyzer using dual-beam microscale-refractive index gradient detection. <i>Journal of Chromatography A</i> , 2003, 1013, 77-91.	3.7	28
76	Experimental Study of the Quantitative Precision for Valve-Based Comprehensive Two-Dimensional Gas Chromatography. <i>Analytical Chemistry</i> , 2011, 83, 5190-5196.	6.5	28
77	Evaluation of the DotMap algorithm for locating analytes of interest based on mass spectral similarity in data collected using comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry. <i>Journal of Chromatography A</i> , 2005, 1086, 185-192.	3.7	27
78	Toward a global analysis of metabolites in regulatory mutants of yeast. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 401, 2387-2402.	3.7	27
79	Enhancing the chemical selectivity in discovery-based analysis with tandem ionization time-of-flight mass spectrometry detection for comprehensive two-dimensional gas chromatography. <i>Journal of Chromatography A</i> , 2018, 1537, 99-108.	3.7	27
80	Enhanced surfactant determination by ion-pair formation using flow-injection analysis and dynamic surface tension detection. <i>Talanta</i> , 1996, 43, 889-899.	5.5	26
81	Development and evaluation of gold-centered monolayer protected nanoparticle stationary phases for gas chromatography. <i>Journal of Chromatography A</i> , 2004, 1060, 225-236.	3.7	26
82	Analysis of bacteria by pyrolysis gas chromatography–differential mobility spectrometry and isolation of chemical components with a dependence on growth temperature. <i>Analyst, The</i> , 2007, 132, 1031.	3.5	25
83	Gas chromatography–mass spectrometry with chemometric analysis for determining <sup>12</sup> C and <sup>13</sup> C labeled contributions in metabolomics and <sup>13</sup> C flux analysis. <i>Journal of Chromatography A</i> , 2012, 1240, 156-164.	3.7	25
84	Using Receiver Operating Characteristic Curves To Optimize Discovery-Based Software with Comprehensive Two-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 3606-3612.	6.5	25
85	Impact of data bin size on the classification of diesel fuels using comprehensive two-dimensional gas chromatography with principal component analysis. <i>Talanta</i> , 2020, 206, 120239.	5.5	25
86	Development of a positive pressure driven micro-fabricated liquid chromatographic analyzer through rapid-prototyping with poly(dimethylsiloxane) Optimizing chromatographic efficiency with sub-nanoliter injections. <i>Talanta</i> , 2000, 51, 1205-1212.	5.5	24
87	A Microscale-Molecular Weight Sensor: Probing Molecular Diffusion between Adjacent Laminar Flows by Refractive Index Gradient Detection. <i>Analytical Chemistry</i> , 2002, 74, 4558-4565.	6.5	24
88	Fast, high peak capacity separations in comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. <i>Journal of Chromatography A</i> , 2012, 1266, 116-123.	3.7	24
89	Dynamic Surface Tension Detection by Optically Probing a Repeating Drop Rate. <i>Analytical Chemistry</i> , 1994, 66, 1209-1216.	6.5	23
90	Trilinearity deviation ratio: A new metric for chemometric analysis of comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry data. <i>Analytica Chimica Acta</i> , 2015, 871, 66-76.	5.4	23

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91	Untargeted profiling and differentiation of geographical variants of wine samples using headspace solid-phase microextraction flow-modulated comprehensive two-dimensional gas chromatography with the support of tile-based Fisher ratio analysis. <i>Journal of Chromatography A</i> , 2022, 1662, 462735.	3.7	23
92	Fast, High Peak Capacity Separations in Gas Chromatography—Time-of-Flight Mass Spectrometry. <i>Analytical Chemistry</i> , 2012, 84, 4167-4173.	6.5	22
93	Comprehensive two-dimensional gas chromatography using partial modulation via a pulsed flow valve with a short modulation period. <i>Talanta</i> , 2018, 177, 142-149.	5.5	22
94	Development of Ultrafast Separations Using Negative Pulse Partial Modulation To Enable New Directions in Gas Chromatography. <i>Analytical Chemistry</i> , 2019, 91, 7328-7335.	6.5	22
95	Dynamic Surface Tension and Adhesion Detection for the Rapid Analysis of Surfactants in Flowing Aqueous Liquids. <i>Analytical Chemistry</i> , 1997, 69, 3496-3505.	6.5	21
96	Toward a Fully Integrated Positive-Pressure Driven Microfabricated Liquid Analyzer. <i>Analytical Chemistry</i> , 2002, 74, 177-184.	6.5	21
97	Predictive Modeling of Aerospace Fuel Properties Using Comprehensive Two-Dimensional Gas Chromatography with Time-Of-Flight Mass Spectrometry and Partial Least Squares Analysis. <i>Energy &amp; Fuels</i> , 2020, 34, 4084-4094.	5.1	21
98	Hydrophobic interaction chromatography coupled with dynamic surface tension detection for the determination of surface active species in protein formulations. <i>Journal of Chromatography A</i> , 1998, 806, 239-250.	3.7	20
99	Investigation of high-speed gas chromatography using synchronized dual-valve injection and resistively heated temperature programming. <i>Journal of Chromatography A</i> , 2007, 1148, 236-243.	3.7	20
100	The perinatal transition of the circulating metabolome in a nonhuman primate. <i>Pediatric Research</i> , 2012, 71, 338-344.	2.3	20
101	Targeted analyte deconvolution and identification by four-way parallel factor analysis using three-dimensional gas chromatography with mass spectrometry data. <i>Analytica Chimica Acta</i> , 2017, 983, 67-75.	5.4	20
102	Control-Normalized Fisher Ratio Analysis of Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry Data for Enhanced Biomarker Discovery in a Metabolomic Study of Orthopedic Knee-Ligament Injury. <i>Analytical Chemistry</i> , 2020, 92, 15526-15533.	6.5	20
103	Statistical inference of mass channel purity from Fisher ratio analysis using comprehensive two-dimensional gas chromatography with time of flight mass spectrometry data. <i>Journal of Chromatography A</i> , 2020, 1627, 461401.	3.7	20
104	Investigation of the limit of discovery using tile-based Fisher ratio analysis with comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry. <i>Journal of Chromatography A</i> , 2021, 1644, 462092.	3.7	20
105	Comparison of an integration procedure to Fourier transform and data averaging procedures in chromatographic data analysis. <i>Analytical Chemistry</i> , 1986, 58, 2093-2095.	6.5	19
106	Molecular weight sensing of polyethylene glycols by flow injection analysis and refractive index gradient detection. <i>Analytica Chimica Acta</i> , 1991, 246, 241-249.	5.4	19
107	Novel calibration of a dynamic surface tension detector: flow injection analysis of kinetically-hindered surface active analytes. <i>Talanta</i> , 1999, 50, 1045-1056.	5.5	19
108	Ultrafast separations via pulse flow valve modulation to enable high peak capacity multidimensional gas chromatography. <i>Journal of Chromatography A</i> , 2018, 1573, 115-124.	3.7	19

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109	Development of an Enhanced Total Ion Current Chromatogram Algorithm to Improve Untargeted Peak Detection. <i>Analytical Chemistry</i> , 2020, 92, 11365-11373.	6.5	19
110	Algorithm for locating analytes of interest based on mass spectral similarity in GC-TOF-MS data: analysis of metabolites in human infant urine. <i>Journal of Chromatography A</i> , 2004, 1058, 209-215.	3.7	19
111	Sample preparation methodology for mouse heart metabolomics using comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry. <i>Talanta</i> , 2013, 108, 123-130.	5.5	18
112	High temperature diaphragm valve-based comprehensive two-dimensional gas chromatography. <i>Journal of Chromatography A</i> , 2015, 1424, 127-133.	3.7	18
113	Modeling RP-1 fuel advanced distillation data using comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry and partial least squares analysis. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 321-330.	3.7	18
114	Column selection approach to achieve a high peak capacity in comprehensive three-dimensional gas chromatography. <i>Talanta</i> , 2019, 195, 822-829.	5.5	18
115	Development and evaluation of gold-centered monolayer protected nanoparticle stationary phases for gas chromatography. <i>Journal of Chromatography A</i> , 2004, 1060, 225-236.	3.7	18
116	Constituents with independence from growth temperature for bacteria using pyrolysis-gas chromatography/differential mobility spectrometry with analysis of variance and principal component analysis. <i>Analyst</i> , 2008, 133, 760.	3.5	17
117	Implications of phase ratio for maximizing peak capacity in comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry. <i>Journal of Chromatography A</i> , 2018, 1536, 16-26.	3.7	17
118	Dynamic pressure gradient modulation for comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry detection. <i>Journal of Chromatography A</i> , 2020, 1620, 460982.	3.7	17
119	Radial measurement of hydrodynamically generated concentration profiles for molecular weight determination. <i>Analytical Chemistry</i> , 1992, 64, 2130-2137.	6.5	16
120	Laser-based dynamic surface tension detection for liquid chromatography by probing a repeating drop radius. <i>Journal of Chromatography A</i> , 1995, 691, 195-204.	3.7	16
121	Parallel column liquid chromatography with a single multi-wavelength absorbance detector for enhanced selectivity using chemometric analysis. <i>Analytica Chimica Acta</i> , 2003, 490, 197-210.	5.4	16
122	Flow injection analysis with diode array absorbance detection and dynamic surface tension detection for studying denaturation and surface activity of globular proteins. <i>Analytical Biochemistry</i> , 2006, 351, 100-113.	2.4	16
123	Characterization of BSA unfolding and aggregation using a single-capillary viscometer and dynamic surface tension detector. <i>Talanta</i> , 2011, 85, 2553-2561.	5.5	16
124	High throughput analysis of atmospheric volatile organic compounds by thermal injection isothermal gas chromatography time-of-flight mass spectrometry. <i>Talanta</i> , 2013, 103, 95-102.	5.5	16
125	High temperature diaphragm valve-based comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. <i>Talanta</i> , 2016, 161, 675-680.	5.5	16
126	Dynamic pressure gradient modulation for comprehensive two-dimensional gas chromatography. <i>Journal of Chromatography A</i> , 2020, 1609, 460488.	3.7	16



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127	Improved detection in superspeed size-exclusion chromatography by reducing on-column dilution and detector noise. <i>Analytical Chemistry</i> , 1988, 60, 1829-1832.	6.5	15
128	Ratio of sequential chromatograms for quantitative analysis and peak deconvolution: application to standard addition method and process monitoring. <i>Analytical Chemistry</i> , 1990, 62, 1597-1603.	6.5	15
129	Rapid polymeric surfactant characterization using a novel flow-injection system with dynamic surface tension detection. <i>Analytica Chimica Acta</i> , 2000, 412, 149-160.	5.4	15
130	Study of the interdependency of the data sampling ratio with retention time alignment and principal component analysis for gas chromatography. <i>Journal of Chromatography A</i> , 2011, 1218, 9091-9101.	3.7	15
131	Comprehensive two-dimensional gas chromatography and time-of-flight mass spectrometry detection with a 50 ms modulation period. <i>Journal of Chromatography A</i> , 2019, 1583, 117-123.	3.7	15
132	Advanced data handling in comprehensive two-dimensional gas chromatography. <i>Separation Science and Technology</i> , 2020, 12, 229-268.	0.2	15
133	Algorithm for locating analytes of interest based on mass spectral similarity in GC x GC-TOF-MS data: analysis of metabolites in human infant urine. <i>Journal of Chromatography A</i> , 2004, 1058, 209-15.	3.7	15
134	High-speed cryo-focusing injection for gas chromatography: Reduction of injection band broadening with concentration enrichment. <i>Talanta</i> , 2012, 97, 9-15.	5.5	14
135	Enhancing Gas Chromatography's Time of Flight Mass Spectrometry Data Analysis Using Two-Dimensional Mass Channel Cluster Plots. <i>Analytical Chemistry</i> , 2014, 86, 3973-3979.	6.5	14
136	Class comparison enabled mass spectrum purification for comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. <i>Talanta</i> , 2022, 236, 122844.	5.5	14
137	Dynamic surface tension analysis of dodecyl sulfate association complexes. <i>Talanta</i> , 2001, 55, 551-560.	5.5	13
138	Sequential injection analysis with dynamic surface tension detection High throughput analysis of the interfacial properties of surface-active samples. <i>Talanta</i> , 2003, 59, 1153-1163.	5.5	13
139	High-Throughput Screening of Protein Surface Activity via Flow Injection Analysis-pH Gradient-Dynamic Surface Tension Detection. <i>Analytical Chemistry</i> , 2005, 77, 250-258.	6.5	13
140	Utilizing the Third Order Advantage with Isotope Dilution Mass Spectrometry. <i>Analytical Chemistry</i> , 2010, 82, 41-43.	6.5	13
141	Preliminary effects of real-world factors on the recovery and exploitation of forensic impurity profiles of a nerve-agent simulant from office media. <i>Journal of Chromatography A</i> , 2012, 1270, 269-282.	3.7	13
142	Partial least squares analysis of rocket propulsion fuel data using diaphragm valve-based comprehensive two-dimensional gas chromatography coupled with flame ionization detection. <i>Talanta</i> , 2016, 153, 203-210.	5.5	13
143	Minimum variance optimized Fisher ratio analysis of comprehensive two-dimensional gas chromatography / mass spectrometry data: Study of the pacu fish metabolome. <i>Journal of Chromatography A</i> , 2022, 1667, 462868.	3.7	13
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