Robert E Synovec

List of Publications by Year
in descending order

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	Class comparison enabled mass spectrum purification for comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. Talanta, 2022, 236, 122844.	5.5	14
2	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. Journal of Chromatography A, 2022, 1662, 462735.	3.7	23
3	Minimum variance optimized Fisher ratio analysis of comprehensive two-dimensional gas chromatography / mass spectrometry data: Study of the pacu fish metabolome. Journal of Chromatography A, 2022, 1667, 462868.	3.7	13
4	Tile-Based Pairwise Analysis of GC Ã— GC-TOFMS Data to Facilitate Analyte Discovery and Mass Spectrum Purification. Analytical Chemistry, 2022, 94, 5658-5666.	6.5	13
5	Computational method for untargeted determination of cycling yeast metabolites using comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry. Talanta, 2022, 244, 123396.	5.5	7
6	Principal component analysis of comprehensive three-dimensional gas chromatography time-of-flight mass spectrometry data. Journal of Chromatography Open, 2022, 2, 100043.	2.2	6
7	Tile-based variance rank initiated-unsupervised sample indexing for comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry. Analytica Chimica Acta, 2022, 1209, 339847.	5.4	6
8	Profiling Olefins in Gasoline by Bromination Using GCÃ—GC-TOFMS Followed by Discovery-Based Comparative Analysis. Analytical Chemistry, 2022, 94, 9407-9414.	6.5	10
9	Simulating comprehensive two-dimensional gas chromatography mass spectrometry data with realistic run-to-run shifting to evaluate the robustness of tile-based Fisher ratio analysis. Journal of Chromatography A, 2022, 1677, 463321.	3.7	10
10	Data analysis methods for gas chromatography. , 2021, , 525-546.		2
11	Analytical Determination of the Severity of Potato Taste Defect in Roasted East African Arabica Coffee. Journal of Agricultural and Food Chemistry, 2021, 69, 2253-2261.	5.2	7
12	Investigation of the limit of discovery using tile-based Fisher ratio analysis with comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry. Journal of Chromatography A, 2021, 1644, 462092.	3.7	20
13	Non-targeted discovery of class-distinguishing metabolites in Argentinian pacu fish by comprehensive two-dimensional gas chromatography with principal component analysis. Microchemical Journal, 2021, 164, 106004.	4.5	6
14	Determination of the Signal-To-Noise Ratio Enhancement in Comprehensive Three-Dimensional Gas Chromatography. Analytical Chemistry, 2021, 93, 8526-8535.	6.5	6
15	Baseline correction method for dynamic pressure gradient modulated comprehensive two-dimensional gas chromatography with flame ionization detection. Journal of Chromatography A, 2021, 1652, 462358.	3.7	4
16	Development of variance rank initiated-unsupervised sample indexing for gas chromatography-mass spectrometry analysis. Talanta, 2021, 233, 122495.	5.5	7
17	Dynamic pressure gradient modulation for comprehensive two-dimensional gas chromatography. Journal of Chromatography A, 2020, 1609, 460488.	3.7	16
18	Impact of data bin size on the classification of diesel fuels using comprehensive two-dimensional gas chromatography with principal component analysis. Talanta, 2020, 206, 120239.	5.5	25

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19	Chemometric decomposition of comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry data employing partial modulation in the negative pulse mode. Talanta, 2020, 210, 120670.	5.5	5
20	Development of an Enhanced Total Ion Current Chromatogram Algorithm to Improve Untargeted Peak Detection. Analytical Chemistry, 2020, 92, 11365-11373.	6.5	19
21	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. Analytical Chemistry, 2020, 92, 15526-15533.	6.5	20
22	Development of gas chromatographic pattern recognition and classification tools for compliance and forensic analyses of fuels: A review. Analytica Chimica Acta, 2020, 1132, 157-186.	5.4	39
23	Statistical inference of mass channel purity from Fisher ratio analysis using comprehensive two-dimensional gas chromatography with time of flight mass spectrometry data. Journal of Chromatography A, 2020, 1627, 461401.	3.7	20
24	Total-transfer comprehensive three-dimensional gas chromatography with time-of-flight mass spectrometry. Journal of Chromatography A, 2020, 1634, 461654.	3.7	11
25	Discovery-based analysis and quantification for comprehensive three-dimensional gas chromatography flame ionization detection data. Journal of Chromatography A, 2020, 1623, 461190.	3.7	11
26	Predictive Modeling of Aerospace Fuel Properties Using Comprehensive Two-Dimensional Gas Chromatography with Time-Of-Flight Mass Spectrometry and Partial Least Squares Analysis. Energy & Fuels, 2020, 34, 4084-4094.	5.1	21
27	Management and interpretation of capillary chromatography-mass spectrometry data. , 2020, , 449-480.		1
28	Advanced data handling in comprehensive two-dimensional gas chromatography. Separation Science and Technology, 2020, 12, 229-268.	0.2	15
29	Dynamic pressure gradient modulation for comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry detection. Journal of Chromatography A, 2020, 1620, 460982.	3.7	17
30	A systematic investigation of comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry with dynamic pressure gradient modulation for high peak capacity separations. Analytica Chimica Acta, 2020, 1134, 115-124.	5.4	11
31	Recent advances in modulator technology for comprehensive two dimensional gas chromatography. TrAC - Trends in Analytical Chemistry, 2019, 113, 379-391.	11.4	82
32	Impact of comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry experimental design on data trilinearity and parallel factor analysis deconvolution. Journal of Chromatography A, 2019, 1605, 460368.	3.7	10
33	Development of Ultrafast Separations Using Negative Pulse Partial Modulation To Enable New Directions in Gas Chromatography. Analytical Chemistry, 2019, 91, 7328-7335.	6.5	22
34	Examination of the two-dimensional mass channel cluster plot method for gas chromatography â€“ mass spectrometry in the context of the statistical model of overlap. Journal of Chromatography A, 2019, 1601, 319-326.	3.7	0
35	Comprehensive two-dimensional gas chromatography and time-of-flight mass spectrometry detection with a 50 ms modulation period. Journal of Chromatography A, 2019, 1583, 117-123.	3.7	15
36	Column selection approach to achieve a high peak capacity in comprehensive three-dimensional gas chromatography. Talanta, 2019, 195, 822-829.	5.5	18

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37	Enhancing the chemical selectivity in discovery-based analysis with tandem ionization time-of-flight mass spectrometry detection for comprehensive two-dimensional gas chromatography. Journal of Chromatography A, 2018, 1537, 99-108.	3.7	27
38	Implications of phase ratio for maximizing peak capacity in comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry. Journal of Chromatography A, 2018, 1536, 16-26.	3.7	17
39	Multidimensional Gas Chromatography: Advances in Instrumentation, Chemometrics, and Applications. Analytical Chemistry, 2018, 90, 505-532.	6.5	147
40	Comprehensive two-dimensional gas chromatography using partial modulation via a pulsed flow valve with a short modulation period. Talanta, 2018, 177, 142-149.	5.5	22
41	Ultrafast separations via pulse flow valve modulation to enable high peak capacity multidimensional gas chromatography. Journal of Chromatography A, 2018, 1573, 115-124.	3.7	19
42	Using Receiver Operating Characteristic Curves To Optimize Discovery-Based Software with Comprehensive Two-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2017, 89, 3606-3612.	6.5	25
43	Comprehensive Three-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2017, 89, 1793-1800.	6.5	29
44	Determining the Probability of Achieving a Successful Quantitative Analysis for Gas Chromatographyâ€“Mass Spectrometry. Analytical Chemistry, 2017, 89, 9926-9933.	6.5	11
45	Targeted analyte deconvolution and identification by four-way parallel factor analysis using three-dimensional gas chromatography with mass spectrometry data. Analytica Chimica Acta, 2017, 983, 67-75.	5.4	20
46	Method to determine the true modulation ratio for comprehensive two-dimensional gas chromatography. Journal of Chromatography A, 2016, 1476, 114-123.	3.7	12
47	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. Journal of Chromatography A, 2016, 1440, 179-190.	3.7	41
48	High temperature diaphragm valve-based comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. Talanta, 2016, 161, 675-680.	5.5	16
49	Hydrocarbon Fuel Thermal Performance Modeling based on Systematic Measurement and Comprehensive Chromatographic Analysis. , 2016, , .		4
50	Performance evaluation of tile-based Fisher Ratio analysis using a benchmark yeast metabolome dataset. Journal of Chromatography A, 2016, 1459, 101-111.	3.7	34
51	Non-targeted determination of 13C-labeling in the Methylobacterium extorquens AM1 metabolome using the two-dimensional mass cluster method and principal component analysis. Journal of Chromatography A, 2016, 1432, 111-121.	3.7	8
52	Extension of the two-dimensional mass channel cluster plot method to fast separations utilizing low thermal mass gas chromatography with time-of-flight mass spectrometry. Analytica Chimica Acta, 2016, 913, 160-170.	5.4	3
53	Partial least squares analysis of rocket propulsion fuel data using diaphragm valve-based comprehensive two-dimensional gas chromatography coupled with flame ionization detection. Talanta, 2016, 153, 203-210.	5.5	13
54	Pixel-Level Data Analysis Methods for Comprehensive Two-Dimensional Chromatography. Data Handling in Science and Technology, 2015, 29, 427-463.	3.1	12

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55	High temperature diaphragm valve-based comprehensive two-dimensional gas chromatography. Journal of Chromatography A, 2015, 1424, 127-133.	3.7	18
56	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. Analytical and Bioanalytical Chemistry, 2015, 407, 321-330.	3.7	18
57	Trilinearity deviation ratio: A new metric for chemometric analysis of comprehensive two-dimensional gas chromatography time-of-flight mass spectrometry data. Analytica Chimica Acta, 2015, 871, 66-76.	5.4	23
58	Tile-Based Fisher Ratio Analysis of Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry (GC Ã— GCâ€“TOFMS) Data Using a Null Distribution Approach. Analytical Chemistry, 2015, 87, 3812-3819.	6.5	76
59	Evaluation of injection methods for fast, high peak capacity separations with low thermal mass gas chromatography. Journal of Chromatography A, 2015, 1392, 82-90.	3.7	6
60	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. Journal of Chromatography A, 2014, 1327, 132-140.	3.7	38
61	Enhancing Gas Chromatographyâ€“Time of Flight Mass Spectrometry Data Analysis Using Two-Dimensional Mass Channel Cluster Plots. Analytical Chemistry, 2014, 86, 3973-3979.	6.5	14
62	Methods of Discovery-Based and Targeted Metabolite Analysis by Comprehensive Two-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry Detection. Methods in Molecular Biology, 2014, 1198, 83-97.	0.9	9
63	Monolayer-Protected Metal Nanoparticles: Chemical Sensing and Gas Chromatography. , 2014, , 2770-2778.		0
64	Comprehensive discovery of 13C labeled metabolites in the bacterium Methylobacterium extorquens AM1 using gas chromatographyâ€“mass spectrometry. Journal of Chromatography A, 2013, 1317, 175-185.	3.7	7
65	Chemical analysis in a drop: a dynamic surface tension detector for polymer and protein characterization. Polymer International, 2013, 62, 1135-1143.	3.1	0
66	Tile-based Fisher-ratio software for improved feature selection analysis of comprehensive two-dimensional gas chromatographyâ€“time-of-flight mass spectrometry data. Talanta, 2013, 115, 887-895.	5.5	71
67	Sample preparation methodology for mouse heart metabolomics using comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry. Talanta, 2013, 108, 123-130.	5.5	18
68	High throughput analysis of atmospheric volatile organic compounds by thermal injection â€“ isothermal gas chromatography â€“ time-of-flight mass spectrometry. Talanta, 2013, 103, 95-102.	5.5	16
69	Targeted mass spectral ratio analysis: A new tool for gas chromatographyâ€”mass spectrometry. Talanta, 2013, 103, 267-275.	5.5	4
70	Cardiac-Specific Deletion of Acetyl CoA Carboxylase 2 Prevents Metabolic Remodeling During Pressure-Overload Hypertrophy. Circulation Research, 2012, 111, 728-738.	4.5	214
71	Fast, high peak capacity separations in comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. Journal of Chromatography A, 2012, 1266, 116-123.	3.7	24
72	Preliminary effects of real-world factors on the recovery and exploitation of forensic impurity profiles of a nerve-agent simulant from office media. Journal of Chromatography A, 2012, 1270, 269-282.	3.7	13

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73	Fast, High Peak Capacity Separations in Gas Chromatographyâ€“Time-of-Flight Mass Spectrometry. Analytical Chemistry, 2012, 84, 4167-4173.	6.5	22
74	High-speed cryo-focusing injection for gas chromatography: Reduction of injection band broadening with concentration enrichment. Talanta, 2012, 97, 9-15.	5.5	14
75	Data Analysis Methods. , 2012, , 415-434.		45
76	The perinatal transition of the circulating metabolome in a nonhuman primate. Pediatric Research, 2012, 71, 338-344.	2.3	20
77	Review of chemometric analysis techniques for comprehensive two dimensional separations data. Journal of Chromatography A, 2012, 1255, 3-11.	3.7	132
78	Gas chromatographyâ€“mass spectrometry with chemometric analysis for determining 12C and 13C labeled contributions in metabolomics and 13C flux analysis. Journal of Chromatography A, 2012, 1240, 156-164.	3.7	25
79	Experimental Study of the Quantitative Precision for Valve-Based Comprehensive Two-Dimensional Gas Chromatography. Analytical Chemistry, 2011, 83, 5190-5196.	6.5	28
80	Real-time target selection optimization to enhance alignment of gas chromatograms. Talanta, 2011, 83, 738-743.	5.5	6
81	Characterization of BSA unfolding and aggregation using a single-capillary viscometer and dynamic surface tension detector. Talanta, 2011, 85, 2553-2561.	5.5	16
82	Study of the interdependency of the data sampling ratio with retention time alignment and principal component analysis for gas chromatography. Journal of Chromatography A, 2011, 1218, 9091-9101.	3.7	15
83	Toward a global analysis of metabolites in regulatory mutants of yeast. Analytical and Bioanalytical Chemistry, 2011, 401, 2387-2402.	3.7	27
84	Utilizing a constant peak width transform for isothermal gas chromatography. Journal of Chromatography A, 2011, 1218, 3718-3724.	3.7	2
85	Development of a solid phase extraction protocol coupled with liquid chromatography mass spectrometry to analyze central carbon metabolites in lake sediment microcosms. Journal of Separation Science, 2011, 34, 3597-3605.	2.5	10
86	Achieving high peak capacity production for gas chromatography and comprehensive two-dimensional gas chromatography by minimizing off-column peak broadening. Journal of Chromatography A, 2011, 1218, 3130-3139.	3.7	33
87	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. Journal of Chromatography A, 2011, 1218, 1899-1906.	3.7	86
88	Impurity Profiling of a Chemical Weapon Precursor for Possible Forensic Signatures by Comprehensive Two-Dimensional Gas Chromatography/Mass Spectrometry and Chemometrics. Analytical Chemistry, 2010, 82, 689-698.	6.5	78
89	Quantitative assessment of moisture damage for cacao bean quality using two-dimensional gas chromatography combined with time-of-flight mass spectrometry and chemometrics. Journal of Chromatography A, 2010, 1217, 1963-1970.	3.7	68
90	Increasing selectivity in comprehensive three-dimensional gas chromatography via an ionic liquid stationary phase column in one dimension. Journal of Chromatography A, 2010, 1217, 3144-3149.	3.7	60

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91	Development and application of a comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry method for the analysis of l-Î²-methylamino-alanine in human tissue. Journal of Chromatography A, 2010, 1217, 4639-4647.	3.7	64
92	Utilizing the Third Order Advantage with Isotope Dilution Mass Spectrometry. Analytical Chemistry, 2010, 82, 41-43.	6.5	13
93	Analysis of commercial beverage products by size exclusion chromatography coupled with UVâ€“vis absorbance detection and dynamic surface tension detection. Talanta, 2010, 80, 1445-1451.	5.5	8
94	Chemometric analysis of gas chromatographyâ€“mass spectrometry data using fast retention time alignment via a total ion current shift function. Talanta, 2010, 81, 120-128.	5.5	29
95	Toward automated peak resolution in complete GCâ€‰Ã—â€‰GCâ€“TOFMS chromatograms by PARAFAC. Journal of Chemometrics, 2009, 23, 421-431.	1.3	49
96	Development of a GCÃ—GCâ€“TOFMS method using SPME to determine volatile compounds in cacao beans. Journal of Separation Science, 2009, 32, 2289-2295.	2.5	39
97	Liquid chromatographyâ€“tandem quadrupole mass spectrometry and comprehensive two-dimensional gas chromatographyâ€“time-of-flight mass spectrometry measurement of targeted metabolites of Methylobacterium extorquens AM1 grown on two different carbon sources. Journal of Chromatography A, 2009, 1216, 3280-3289.	3.7	75
98	Handling within run retention time shifts in two-dimensional chromatography data using shift correction and modeling. Journal of Chromatography A, 2009, 1216, 4020-4029.	3.7	66
99	Chapter 5 Chemometric Approaches. Comprehensive Analytical Chemistry, 2009, 55, 107-122.	1.3	1
100	High-speed, temperature programmable gas chromatography utilizing a microfabricated chip with an improved carbon nanotube stationary phase. Talanta, 2009, 77, 1420-1425.	5.5	94
101	Characterization and utilization of a novel triflate ionic liquid stationary phase for use in comprehensive twoâ€dimensional gas chromatography. Journal of Separation Science, 2008, 31, 3429-3436.	2.5	36
102	Identification and evaluation of cycling yeast metabolites in two-dimensional comprehensive gas chromatographyâ€“time-of-flight-mass spectrometry data. Journal of Chromatography A, 2008, 1186, 401-411.	3.7	64
103	Recent advancements in comprehensive two-dimensional separations with chemometrics. Journal of Chromatography A, 2008, 1184, 341-352.	3.7	146
104	High-speed gas chromatography: The importance of instrumentation optimization and the elimination of extra-column band broadening. Talanta, 2008, 76, 703-717.	5.5	33
105	Constituents with independence from growth temperature for bacteria using pyrolysis-gas chromatography/differential mobility spectrometry with analysis of variance and principal component analysis. Analyst, The, 2008, 133, 760.	3.5	17
106	Time-Dependent Profiling of Metabolites from Snf1 Mutant and Wild Type Yeast Cells. Analytical Chemistry, 2008, 80, 8002-8011.	6.5	42
107	Automated Resolution of Nontarget Analyte Signals in GC Ã— GC-TOFMS Data Using Parallel Factor Analysis. Analytical Chemistry, 2008, 80, 6677-6688.	6.5	53
108	Cyclic changes in metabolic state during the life of a yeast cell. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16886-16891.	7.1	232

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109	Size exclusion chromatography with dual-beam refractive index gradient detection of polystyrene samples. Talanta, 2007, 73, 287-295.	5.5	2
110	Observations on â€œOrthogonalityâ€•in Comprehensive Two-Dimensional Separations. Analytical Chemistry, 2007, 79, 7924-7927.	6.5	52
111	Comprehensive analysis of yeast metabolite GCÃ—GCâ€“TOFMS data: combining discovery-mode and deconvolution chemometric software. Analyst, The, 2007, 132, 756-767.	3.5	103
112	Analysis of bacteria by pyrolysis gas chromatographyâ€“differential mobility spectrometry and isolation of chemical components with a dependence on growth temperature. Analyst, The, 2007, 132, 1031.	3.5	25
113	Parallel Factor Analysis (PARAFAC) of Target Analytes in GC Ã— GCâ¯TOFMS Data:Â Automated Selection of a Model with an Appropriate Number of Factors. Analytical Chemistry, 2007, 79, 1611-1619.	6.5	90
114	Comprehensive Three-Dimensional Gas Chromatography with Parallel Factor Analysis. Analytical Chemistry, 2007, 79, 8270-8280.	6.5	66
115	Unsupervised parameter optimization for automated retention time alignment of severely shifted gas chromatographic data using the piecewise alignment algorithm. Journal of Chromatography A, 2007, 1141, 106-116.	3.7	30
116	Investigation of high-speed gas chromatography using synchronized dual-valve injection and resistively heated temperature programming. Journal of Chromatography A, 2007, 1148, 236-243.	3.7	20
117	Ultrafast Gas Chromatography on Single-Wall Carbon Nanotube Stationary Phases in Microfabricated Channels. Analytical Chemistry, 2006, 78, 5639-5644.	6.5	137
118	Fisher Ratio Method Applied to Third-Order Separation Data To Identify Significant Chemical Components of Metabolite Extracts. Analytical Chemistry, 2006, 78, 5068-5075.	6.5	135
119	Comprehensive Two-Dimensional Gas Chromatography Time-of-Flight Mass Spectrometry Analysis of Metabolites in Fermenting and Respiring Yeast Cells. Analytical Chemistry, 2006, 78, 2700-2709.	6.5	150
120	A principal component analysis based method to discover chemical differences in comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry (GCÃ—GC-TOFMS) separations of metabolites in plant samples. Talanta, 2006, 70, 797-804.	5.5	102
121	Flow injection analysis with diode array absorbance detection and dynamic surface tension detection for studying denaturation and surface activity of globular proteins. Analytical Biochemistry, 2006, 351, 100-113.	2.4	16
122	Total-transfer, valve-based comprehensive two-dimensional gas chromatography. Analytica Chimica Acta, 2006, 555, 68-74.	5.4	30
123	Classification of high-speed gas chromatographyâ€“mass spectrometry data by principal component analysis coupled with piecewise alignment and feature selection. Journal of Chromatography A, 2006, 1129, 111-118.	3.7	41
124	Classification of gasoline data obtained by gas chromatography using a piecewise alignment algorithm combined with feature selection and principal component analysis. Journal of Chromatography A, 2005, 1096, 101-110.	3.7	148
125	Effect of solution viscosity on dynamic surface tension detection. Analytica Chimica Acta, 2005, 534, 79-87.	5.4	8
126	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. Journal of Chromatography A, 2005, 1086, 185-192.	3.7	27

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127	High-Throughput Screening of Protein Surface Activity via Flow Injection Analysis-pH Gradient-Dynamic Surface Tension Detection. Analytical Chemistry, 2005, 77, 250-258.	6.5	13
128	A Comprehensive Two-Dimensional Retention Time Alignment Algorithm To Enhance Chemometric Analysis of Comprehensive Two-Dimensional Separation Data. Analytical Chemistry, 2005, 77, 7735-7743.	6.5	125
129	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. Talanta, 2005, 65, 380-388.	5.5	80
130	A dynamic liquidâ€“liquid interfacial pressure detector for the rapid analysis of surfactants in a flowing organic liquid. Talanta, 2005, 65, 722-729.	5.5	2
131	Trilinear chemometric analysis of two-dimensional comprehensive gas chromatographyâ€“time-of-flight mass spectrometry data. Journal of Chromatography A, 2004, 1027, 269-277.	3.7	100
132	Multidimensional analysis of denatured milk proteins by hydrophobic interaction chromatography coupled to a dynamic surface tension detector. Journal of Chromatography A, 2004, 1023, 79-91.	3.7	12
133	Determination, by dynamic surface-tension analysis, of the molar mass of proteins denatured in guanidine thiocyanate. Analytical and Bioanalytical Chemistry, 2004, 378, 134-143.	3.7	5
134	Trends in chemometric analysis of comprehensive two-dimensional separations. Analytical and Bioanalytical Chemistry, 2004, 378, 1948-1951.	3.7	41
135	Quantification of naphthalenes in jet fuel with GCÃ—GC/Tri-PLS and windowed rank minimization retention time alignment. Journal of Separation Science, 2004, 27, 410-416.	2.5	58
136	Monolayer-protected gold nanoparticles as an efficient stationary phase for open tubular gas chromatography using a square capillary. Journal of Chromatography A, 2004, 1029, 185-192.	3.7	54
137	Multivariate selectivity as a metric for evaluating comprehensive two-dimensional gas chromatographyâ€“time-of-flight mass spectrometry subjected to chemometric peak deconvolution. Journal of Chromatography A, 2004, 1056, 145-154.	3.7	11
138	High-Speed Gas Chromatography Using Synchronized Dual-Valve Injection. Analytical Chemistry, 2004, 76, 3517-3524.	6.5	34
139	Size-Exclusion Chromatography with Dynamic Surface Tension Detection: Analysis of Polymers and Proteins. ACS Symposium Series, 2004, , 266-280.	0.5	1
140	Development and evaluation of gold-centered monolayer protected nanoparticle stationary phases for gas chromatography. Journal of Chromatography A, 2004, 1060, 225-236.	3.7	26
141	Algorithm for locating analytes of interest based on mass spectral similarity in GC Ã— GCâ€“TOF-MS data: analysis of metabolites in human infant urine. Journal of Chromatography A, 2004, 1058, 209-215.	3.7	63
142	Development and evaluation of gold-centered monolayer protected nanoparticle stationary phases for gas chromatography. Journal of Chromatography A, 2004, 1060, 225-236.	3.7	18
143	Algorithm for locating analytes of interest based on mass spectral similarity in GC Ã— GCâ€“TOF-MS data: analysis of metabolites in human infant urine. Journal of Chromatography A, 2004, 1058, 209-215.	3.7	19
144	Multivariate selectivity as a metric for evaluating comprehensive two-dimensional gas chromatography-time-of-flight mass spectrometry subjected to chemometric peak deconvolution. Journal of Chromatography A, 2004, 1056, 145-54.	3.7	53

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145	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. Journal of Chromatography A, 2004, 1058, 209-15.	3.7	15
146	Valve-based comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometric detection: instrumentation and figures-of-merit. Journal of Chromatography A, 2003, 1019, 79-87.	3.7	49
147	High-speed peak matching algorithm for retention time alignment of gas chromatographic data for chemometric analysis. Journal of Chromatography A, 2003, 996, 141-155.	3.7	182
148	Diffusion coefficient measurement in a microfluidic analyzer using dual-beam microscale-refractive index gradient detection. Journal of Chromatography A, 2003, 1013, 77-91.	3.7	28
149	Parallel column liquid chromatography with a single multi-wavelength absorbance detector for enhanced selectivity using chemometric analysis. Analytica Chimica Acta, 2003, 490, 197-210.	5.4	16
150	High-speed gas chromatographic separations with diaphragm valve-based injection and chemometric analysis as a gas chromatographic â€œsensorâ€• Analytica Chimica Acta, 2003, 490, 223-230.	5.4	32
151	Comprehensive two-dimensional gas chromatography of volatile and semi-volatile components using a diaphragm valve-based instrument. Journal of Chromatography A, 2003, 983, 195-204.	3.7	56
152	Sequential injection analysis with dynamic surface tension detection High throughput analysis of the interfacial properties of surface-active samples. Talanta, 2003, 59, 1153-1163.	5.5	13
153	Monolayer-Protected Gold Nanoparticles as a Stationary Phase for Open Tubular Gas Chromatography. Analytical Chemistry, 2003, 75, 4558-4564.	6.5	71
154	A Microscale-Molecular Weight Sensor:â€‰ Probing Molecular Diffusion between Adjacent Laminar Flows by Refractive Index Gradient Detection. Analytical Chemistry, 2002, 74, 4558-4565.	6.5	24
155	Toward a Fully Integrated Positive-Pressure Driven Microfabricated Liquid Analyzer. Analytical Chemistry, 2002, 74, 177-184.	6.5	21
156	GCÃ—GC temperature programming requirements to produce bilinear data for chemometric analysis. Journal of Separation Science, 2002, 25, 297-303.	2.5	38
157	Pattern recognition of jet fuels: comprehensive GCÃ—GC with ANOVA-based feature selection and principal component analysis. Chemometrics and Intelligent Laboratory Systems, 2002, 60, 225-237.	3.5	178
158	Two-Dimensional Gas Chromatography and Trilinear Partial Least Squares for the Quantitative Analysis of Aromatic and Naphthene Content in Naphtha. Analytical Chemistry, 2001, 73, 5677-5682.	6.5	80
159	Separation and determination of denatured caseins by hydrophobic interaction chromatography. Part II. Method validation and applications. Analyst, The, 2001, 126, 995-1000.	3.5	10
160	Dynamic surface tension analysis of dodecyl sulfate association complexes. Talanta, 2001, 55, 551-560.	5.5	13
161	Objective Data Alignment and Chemometric Analysis of Comprehensive Two-Dimensional Separations with Run-to-Run Peak Shifting on Both Dimensions. Analytical Chemistry, 2001, 73, 5833-5840.	6.5	122
162	Increasing the Number of Analyzable Peaks in Comprehensive Two-Dimensional Separations through Chemometrics. Analytical Chemistry, 2001, 73, 675-683.	6.5	69

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163	Comprehensive LCï¿½GC for enhanced headspace analysis. Journal of Separation Science, 2000, 12, 160-166.	1.0	39
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