

Peter D Wentzell

List of Publications by Year in descending order

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96
papers

2,842
citations

201658

27
h-index

189881

50
g-index

100
all docs

100
docs citations

100
times ranked

2478
citing authors

#	ARTICLE	IF	CITATIONS
1	Beyond principal components: a critical comparison of factor analysis methods for subspace modelling in chemistry. <i>Analytical Methods</i> , 2021, 13, 4188-4219.	2.7	11
2	Combinatorial projection pursuit analysis for exploring multivariate chemical data. <i>Analytica Chimica Acta</i> , 2021, 1174, 338716.	5.4	4
3	Simulation of $1/f \pm$ noise for analytical measurements. <i>Journal of Chemometrics</i> , 2020, 34, e3137.	1.3	1
4	Sparse Projection Pursuit Analysis: An Alternative for Exploring Multivariate Chemical Data. <i>Analytical Chemistry</i> , 2020, 92, 1755-1762.	6.5	7
5	Partial least squares discrimination applied to a few samples dataset: A case for predicting the presence of pesticide in lettuce. <i>Journal of Chemometrics</i> , 2020, 34, e3299.	1.3	1
6	Kurtosis-based projection pursuit analysis to extract information from sensory attributes of cachaa. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2020, 203, 104075.	3.5	5
7	Chemical Barcoding: A Nuclear-Magnetic-Resonance-Based Approach To Ensure the Quality and Safety of Natural Ingredients. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 7765-7774.	5.2	10
8	NoiseGen - Analytical Measurement Error Simulation Software. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2019, 189, 155-160.	3.5	1
9	Assessing individual performance and maintaining breath sample integrity in biomedical detection dogs. <i>Behavioural Processes</i> , 2018, 155, 8-18.	1.1	8
10	Implications of measurement error structure on the visualization of multivariate chemical data: hazards and alternatives. <i>Canadian Journal of Chemistry</i> , 2018, 96, 738-748.	1.1	8
11	Improved modeling of multivariate measurement errors based on the Wishart distribution. <i>Analytica Chimica Acta</i> , 2017, 959, 1-14.	5.4	15
12	Projection pursuit and PCA associated with near and middle infrared hyperspectral images to investigate forensic cases of fraudulent documents. <i>Microchemical Journal</i> , 2017, 130, 412-419.	4.5	40
13	Generalized error-dependent prediction uncertainty in multivariate calibration. <i>Analytica Chimica Acta</i> , 2016, 903, 51-60.	5.4	27
14	Simple methods for the optimization of complex-valued kurtosis as a projection index. <i>Journal of Chemometrics</i> , 2015, 29, 224-236.	1.3	2
15	Procrustes rotation as a diagnostic tool for projection pursuit analysis. <i>Analytica Chimica Acta</i> , 2015, 877, 51-63.	5.4	11
16	The Errors of My Ways: Maximum Likelihood PCA Seventeen Years after Bruce. <i>ACS Symposium Series</i> , 2015, , 31-64.	0.5	2
17	Regularized projection pursuit for data with a small sample-to-variable ratio. <i>Metabolomics</i> , 2014, 10, 589-606.	3.0	13
18	Re-centered kurtosis as a projection pursuit index for multivariate data analysis. <i>Journal of Chemometrics</i> , 2014, 28, 370-384.	1.3	19

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19	Characterization of heteroscedastic measurement noise in the absence of replicates. <i>Analytica Chimica Acta</i> , 2014, 847, 16-28.	5.4	19
20	Measurement Errors in Multivariate Chemical Data. <i>Journal of the Brazilian Chemical Society</i> , 2013, , .	0.6	4
21	Chromatographic behaviour of peptides following dimethylation with H ₂ /D ₂ -formaldehyde: Implications for comparative proteomics. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2012, 908, 59-66.	2.3	21
22	Detection limits of chemical sensors: Applications and misapplications. <i>Sensors and Actuators B: Chemical</i> , 2012, 173, 157-163.	7.8	239
23	Exploratory data analysis with noisy measurements. <i>Journal of Chemometrics</i> , 2012, 26, 264-281.	1.3	19
24	Scanner Digital Images Combined with Color Parameters: A Case Study to Detect Adulterations in Liquid Cowâ€™s Milk. <i>Food Analytical Methods</i> , 2012, 5, 89-95.	2.6	50
25	Fast and simple methods for the optimization of kurtosis used as a projection pursuit index. <i>Analytica Chimica Acta</i> , 2011, 704, 1-15.	5.4	38
26	Interpretation of analysis of variance models using principal component analysis to assess the effect of a maternal anticancer treatment on the mineralization of rat bones. <i>Analytica Chimica Acta</i> , 2011, 689, 1-7.	5.4	18
27	An introduction to DNA microarrays for gene expression analysis. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2010, 104, 28-52.	3.5	43
28	Preliminary Exploration of Time Course DNA Microarray Data with Correlation Maps. <i>OMICS A Journal of Integrative Biology</i> , 2010, 14, 99-107.	2.0	4
29	Comparison of the results obtained by four receptor modelling methods in aerosol source apportionment studies. <i>Atmospheric Environment</i> , 2009, 43, 3989-3997.	4.1	125
30	Characterization of the measurement error structure in 1D 1H NMR data for metabolomics studies. <i>Analytica Chimica Acta</i> , 2009, 636, 163-174.	5.4	44
31	Modeling the Response of a Long-Period Fiber Grating to Ambient Refractive Index Change in Chemical Sensing Applications. <i>Journal of Lightwave Technology</i> , 2008, 26, 1986-1992.	4.6	28
32	Potential Bias in GO::TermFinder. <i>Briefings in Bioinformatics</i> , 2008, 10, 289-294.	6.5	9
33	Methods for Estimating and Mitigating Errors in Spotted, Dual-color DNA Microarrays. <i>OMICS A Journal of Integrative Biology</i> , 2007, 11, 186-199.	2.0	7
34	Tuning the response of long-period fiber gratings for chemical sensing applications. <i>Proceedings of SPIE</i> , 2007, , .	0.8	0
35	Bootstrap method for the estimation of measurement uncertainty in spotted dual-color DNA microarrays. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 389, 2125-2141.	3.7	13
36	An automated, pressure-driven sampling device for harvesting from liquid cultures for genomic and biochemical analyses. <i>Journal of Microbiological Methods</i> , 2006, 65, 357-360.	1.6	4

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37	Approaching the direct exponential curve resolution algorithm from a maximum likelihood perspective. <i>Analytica Chimica Acta</i> , 2006, 556, 383-399.	5.4	10
38	Multivariate curve resolution of time course microarray data. <i>BMC Bioinformatics</i> , 2006, 7, 343.	2.6	101
39	On the equivalence between total least squares and maximum likelihood PCA. <i>Analytica Chimica Acta</i> , 2005, 544, 254-267.	5.4	51
40	Methods for systematic investigation of measurement error covariance matrices. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2005, 77, 181-205.	3.5	69
41	Mathematical improvements to maximum likelihood parallel factor analysis: experimental studies. <i>Journal of Chemometrics</i> , 2005, 19, 236-252.	1.3	5
42	Mathematical improvements to maximum likelihood parallel factor analysis: theory and simulations. <i>Journal of Chemometrics</i> , 2005, 19, 216-235.	1.3	8
43	DNA microarrays: is there a role for analytical chemistry?. <i>Analyst, The</i> , 2005, 130, 1331.	3.5	8
44	Genomic Analysis of Stationary-Phase and Exit in <i>Saccharomyces cerevisiae</i> : Gene Expression and Identification of Novel Essential Genes. <i>Molecular Biology of the Cell</i> , 2004, 15, 5295-5305.	2.1	138
45	Maximum Likelihood Principal Components Regression on Wavelet-Compressed Data. <i>Applied Spectroscopy</i> , 2004, 58, 855-862.	2.2	10
46	Maximum likelihood parallel factor analysis (MLPARAFAC). <i>Journal of Chemometrics</i> , 2003, 17, 237-253.	1.3	28
47	Comparison of principal components regression and partial least squares regression through generic simulations of complex mixtures. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2003, 65, 257-279.	3.5	165
48	Application of Maximum Likelihood Principal Components Regression to Fluorescence Emission Spectra. <i>Applied Spectroscopy</i> , 2002, 56, 789-796.	2.2	31
49	Dynamic Monte Carlo self-modeling curve resolution method for multicomponent mixtures. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2002, 62, 171-188.	3.5	40
50	Three-Way Analysis of Fluorescence Spectra of Polycyclic Aromatic Hydrocarbons with Quenching by Nitromethane. <i>Analytical Chemistry</i> , 2001, 73, 1408-1415.	6.5	55
51	A modification to window target-testing factor analysis using a Gaussian window. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2000, 51, 3-7.	3.5	11
52	Derivative Preprocessing and Optimal Corrections for Baseline Drift in Multivariate Calibration. <i>Applied Spectroscopy</i> , 2000, 54, 1055-1068.	2.2	124
53	Maximum likelihood principal component analysis with correlated measurement errors: theoretical and practical considerations. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1999, 45, 65-85.	3.5	73
54	Window target-testing factor analysis: theory and application to the chromatographic analysis of complex mixtures with multiwavelength fluorescence detection. <i>Analytica Chimica Acta</i> , 1999, 389, 95-113.	5.4	34

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55	Hazards of digital smoothing filters as a preprocessing tool in multivariate calibration. <i>Journal of Chemometrics</i> , 1999, 13, 133-152.	1.3	38
56	Estimation of hydrocarbon types in light gas oils and diesel fuels by ultraviolet absorption spectroscopy and multivariate calibration. <i>Canadian Journal of Chemistry</i> , 1999, 77, 391-400.	1.1	2
57	Prediction of Simple Physical Properties of Mixed Solvent Systems by Artificial Neural Networks. <i>Analytica Chimica Acta</i> , 1998, 371, 117-130.	5.4	15
58	An Experiment in the Sampling of Solids for Chemical Analysis. <i>Journal of Chemical Education</i> , 1998, 75, 1028.	2.3	14
59	Direct optimization of self-modeling curve resolution: application to the kinetics of the permanganate - oxalic acid reaction. <i>Canadian Journal of Chemistry</i> , 1998, 76, 1144-1155.	1.1	31
60	Maximum Likelihood Multivariate Calibration. <i>Analytical Chemistry</i> , 1997, 69, 2299-2311.	6.5	100
61	Maximum likelihood principal component analysis. <i>Journal of Chemometrics</i> , 1997, 11, 339-366.	1.3	207
62	Applications of maximum likelihood principal component analysis: incomplete data sets and calibration transfer. <i>Analytica Chimica Acta</i> , 1997, 350, 341-352.	5.4	78
63	Acoustic Flame Detector for Gas Chromatography. <i>Analytical Chemistry</i> , 1996, 68, 2758-2765.	6.5	10
64	Comments on the relationship between principal components analysis and weighted linear regression for bivariate data sets. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1996, 34, 231-244.	3.5	14
65	Evaluation of acoustic emission as a means for carbonate determination. <i>Analytica Chimica Acta</i> , 1995, 309, 283-292.	5.4	14
66	Parallel Kalman filters for peak purity analysis: extensions to non-ideal detector response. <i>Analytica Chimica Acta</i> , 1995, 307, 459-470.	5.4	11
67	Evolving projection analysis of multicomponent mixtures. <i>Talanta</i> , 1995, 42, 1361-1371.	5.5	3
68	Response surfaces for the determination of arsenic(III) by hydride generation atomic absorption spectrometry and flow injection. <i>Analyst</i> , The, 1994, 119, 1403.	3.5	9
69	Models for Conductance Measurements in Quality Assurance of Water Analysis. <i>Analytical Chemistry</i> , 1994, 66, 830-835.	6.5	9
70	Taxonomy of Amanita mushrooms by pattern recognition of amino acid chromatographic data. <i>Analytica Chimica Acta</i> , 1993, 277, 333-346.	5.4	11
71	Random walk simulation of flow injection analysis. Evaluation of dispersion profiles. <i>Analytica Chimica Acta</i> , 1993, 278, 293-306.	5.4	22
72	Limitations of evolving principal component innovation analysis for peak purity detection in chromatography. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1993, 20, 183-195.	3.5	14

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73	Parallel Kalman filter networks for kinetic methods of analysis. <i>Analytica Chimica Acta</i> , 1992, 257, 173-181.	5.4	16
74	Continuous flow method for the determination of aromatic aldehydes. <i>Analytica Chimica Acta</i> , 1992, 258, 253-258.	5.4	7
75	An Analytical Perspective on ACOUSTIC EMISSION. <i>Analytical Chemistry</i> , 1991, 63, 497A-507A.	6.5	13
76	Real-time principal component analysis using parallel Kalman filter networks for peak purity analysis. <i>Analytical Chemistry</i> , 1991, 63, 2512-2519.	6.5	35
77	Toolbox for chemical acoustic emission data acquisition and analysis. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1991, 12, 271-290.	3.5	6
78	Evaluation of acoustic emission as a means of quantitative chemical analysis. <i>Analytica Chimica Acta</i> , 1991, 246, 43-53.	5.4	27
79	Characterization of acoustic emission from an electrolysis cell. <i>Analytica Chimica Acta</i> , 1991, 254, 223-234.	5.4	13
80	Comparison of pattern recognition descriptors for chemical acoustic emission analysis. <i>Journal of Chemometrics</i> , 1991, 5, 389-403.	1.3	8
81	Versatile Pump Controller for Continuous Flow Methods. <i>Instrumentation Science and Technology</i> , 1990, 19, 167-179.	1.8	1
82	Solution robotics: The chemist's workbench. <i>Chemometrics and Intelligent Laboratory Systems</i> , 1990, 8, 283-288.	3.5	3
83	Automated exploration and exploitation of flow-injection response surfaces. <i>Analytica Chimica Acta</i> , 1990, 237, 361-379.	5.4	12
84	Programming direct memory access data acquisition. <i>TrAC - Trends in Analytical Chemistry</i> , 1990, 9, 3-8.	11.4	8
85	Programming control and data acquisition routines for the IEEE-488 instrumentation interface. <i>TrAC - Trends in Analytical Chemistry</i> , 1990, 9, 217-222.	11.4	5
86	Kinetics of the reaction between aromatic aldehydes and o-dianisidine. <i>Analytical Chemistry</i> , 1990, 62, 304-308.	6.5	3
87	Spectrophotometric determination of palladium with sulfochlorophenolazorhodanine by flow injection. <i>Talanta</i> , 1990, 37, 329-336.	5.5	11
88	Computer-controlled apparatus for automated development of continuous flow methods. <i>Journal of Automated Methods and Management in Chemistry</i> , 1989, 11, 227-234.	0.3	8
89	Simultaneous kinetic determinations with the kalman filter. <i>Analytica Chimica Acta</i> , 1989, 224, 263-274.	5.4	48
90	Display methods for dendrograms. <i>TrAC - Trends in Analytical Chemistry</i> , 1989, 8, 289-291.	11.4	6

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91	Chemical acoustic emission analysis in the frequency domain. <i>Analytical Chemistry</i> , 1989, 61, 2638-2642.	6.5	33
92	Chemical methods in environmental and clinical analysis. <i>Analytical Proceedings</i> , 1989, 26, 128.	0.4	3
93	Modeling chemical response surfaces with the Kalman filter. <i>Analytical Chemistry</i> , 1988, 60, 905-911.	6.5	23
94	Frequency response of initial point least squares polynomial filters. <i>Analytical Chemistry</i> , 1987, 59, 367-371.	6.5	12
95	Comparison of reaction-rate methods of analysis for systems following first-order kinetics. <i>Analytical Chemistry</i> , 1986, 58, 2855-2858.	6.5	34
96	Reaction-rate method of analysis insensitive to between-run changes in rate constant. <i>Analytical Chemistry</i> , 1986, 58, 2851-2855.	6.5	23