

Zhi-Min Zhang Central South University Chemometrics Analytical Chemistry Deep Learning

	All	Since 2015
Citations	1693	1357
h-index	18	17
i10-index	35	30

TITLE	CITED BY	YEAR
Baseline correction using adaptive iteratively reweighted penalized least squares ZM Zhang, S Chen, YZ Liang Analyst 135 (5), 1138-1146	430	2010
An intelligent background-correction algorithm for highly fluorescent samples in Raman spectroscopy ZM Zhang, S Chen, YZ Liang, ZX Liu, QM Zhang, LX Ding, F Ye, H Zhou Journal of Raman Spectroscopy 41 (6), 659-669	233	2009
Deep-learning-based drug-target interaction prediction M Wen, Z Zhang, S Niu, H Sha, R Yang, Y Yun, H Lu Journal of proteome research 16 (4), 1401-1409	141	2017
Application of random forests to select premium quality vegetable oils by their fatty acid composition F Ai, J Bin, Z Zhang, J Huang, J Wang, Y Liang, L Yu, Z Yang Food chemistry 143, 472-478	76	2014
Peak alignment using wavelet pattern matching and differential evolution ZM Zhang, S Chen, YZ Liang Talanta 83 (4), 1108-1117	74	2011
Multiscale peak alignment for chromatographic datasets ZM Zhang, YZ Liang, HM Lu, BB Tan, XN Xu, M Ferro Journal of Chromatography A	57	2011
Morphological weighted penalized least squares for background correction Z Li, DJ Zhan, JJ Wang, J Huang, QS Xu, ZM Zhang, YB Zheng, YZ Liang, Analyst 138 (16), 4483-4492	55	2013
Comparisons of five algorithms for chromatogram alignment W Jiang, ZM Zhang, YH Yun, DJ Zhan, YB Zheng, YZ Liang, ZY Yang, Chromatographia 76 (17-18), 1067-1078	35	2013
Calibration transfer via an extreme learning machine auto-encoder WR Chen, J Bin, HM Lu, ZM Zhang, YZ Liang Analyst 141 (6), 1973-1980	29	2016
Multiscale peak detection in wavelet space ZM Zhang, X Tong, Y Peng, P Ma, MJ Zhang, HM Lu, XQ Chen, YZ Liang Analyst 140 (23), 7955-7964	29	2015
Classification of green and black teas by PCA and SVM analysis of cyclic voltammetric signals from metallic oxide-modified electrode N Liu, Y Liang, J Bin, Z Zhang, J Huang, RX Shu, K Yang Food Analytical Methods 7 (2), 472-480	28	2014

TITLE	CITED BY	YEAR
Baseline correction of high resolution spectral profile data based on exponential smoothing X Liu, Z Zhang, Y Liang, PFM Sousa, Y Yun, L Yu Chemometrics and Intelligent Laboratory Systems 139, 97-108	27	2014
Selective iteratively reweighted quantile regression for baseline correction X Liu, Z Zhang, PFM Sousa, C Chen, M Ouyang, Y Wei, Y Liang, Y Chen, Analytical and bioanalytical chemistry 406 (7), 1985-1998	26	2014
Representative subset selection and outlier detection via isolation forest WR Chen, YH Yun, M Wen, HM Lu, ZM Zhang, YZ Liang Analytical Methods 8 (39), 7225-7231	24	2016
Application of Fast Fourier Transform Cross-Correlation and Mass Spectrometry Data for Accurate Alignment of Chromatograms YB Zheng, ZM Zhang, YZ Liang, DJ Zhan, JH Huang, YH Yun, HL Xie Journal of Chromatography A	23	2013
Raman spectroscopy fluorescence background correction and its application in clustering analysis of medicines S CHEN, X LI, Y LIANG, Z ZHANG, Z LIU, Q ZHANG, L DING, F YE Spectroscopy and Spectral Analysis 30 (8), 2157-2160	23	2010
Deep learning-based component identification for the Raman spectra of mixtures X Fan, W Ming, H Zeng, Z Zhang, H Lu Analyst 144 (5), 1789-1798	19	2019
DeepMirTar: a deep-learning approach for predicting human miRNA target M Wen, P Cong, Z Zhang, H Lu, T Li Bioinformatics 34 (22), 3781-3787	s 18	2018
Identification of terpenoids from Ephedra combining with accurate mass ar in-silico retention indices M He, J Yan, D Cao, S Liu, C Zhao, Y Liang, Y Li, Z Zhang Talanta 103, 116-122	nd 16	2013
Comments on the Baseline Removal Method Based on Quantile Regression and Comparison of Several Methods ZM Zhang, YZ Liang Chromatographia 75 (5), 313-314	on 16	2012
Qualitative analysis of major constituents from Xue Fu Zhu Yu Decoction using ultra high performance liquid chromatography with hybrid ion trap time-of-flight mass spectrometry C Fu, Z Xia, Y Liu, H Lu, Z Zhang, Y Wang, X Fan Journal of separation science 39 (17), 3457-3468	14	2016
The rapid determination of total polyphenols content and antioxidant activit in Dendrobium officinale using near-infrared spectroscopy L Ma, Z Zhang, X Zhao, S Zhang, H Lu Analytical Methods 8 (23), 4584-4589	y 14	2016
Chromatographic fingerprinting and chemometric techniques for quality control of herb medicines Z Zhang, Y Liang, P Xie, F Chau, K Chan Data analytics for traditional chinese medicine research, 133-153	14	2014

TITLE	CITED BY	YEAR
Synthesis of multi-Au-nanoparticle-embedded mesoporous silica microspheres as self-filtering and reusable substrates for SERS detection M Chen, W Luo, Z Zhang, R Wang, Y Zhu, H Yang, X Chen ACS applied materials & interfaces 9 (48), 42156-42166	13	2017
Sensitive surface enhanced Raman spectroscopy (SERS) detection of methotrexate by core-shell-satellite magnetic microspheres M Chen, W Luo, Z Zhang, F Zhu, S Liao, H Yang, X Chen Talanta 171, 152-158	13	2017
Joint MS-based platforms for comprehensive comparison of rat plasma and serum metabolic profiling Z Lin, Z Zhang, H Lu, Y Jin, L Yi, Y Liang Biomedical Chromatography 28 (9), 1235-1245	12	2014
Nonlinear alignment of chromatograms by means of moving window fast Fourier transfrom cross-correlation Z Li, JJ Wang, J Huang, ZM Zhang, HM Lu, YB Zheng, DJ Zhan, YZ Liang Journal of separation science 36 (9-10), 1677-1684	12	2013
A modified multiscale peak alignment method combined with trilinear decomposition to study the volatile/heat-labile components in Ligusticum chuanxiong Hort-Cyperus rotundus M He, P Yan, ZY Yang, ZM Zhang, TB Yang, L Hong Journal of Chromatography B 1079, 41-50	11	2018
Multi-core computing: A novel accelerating method for chemometrics calculation ZM Zhang, YZ Liang, QS Xu Chemometrics and Intelligent Laboratory Systems 96 (1), 94-97	11	2009
Deep MS/MS-aided structural-similarity scoring for unknown metabolite identification H Ji, Y Xu, H Lu, Z Zhang Analytical chemistry 91 (9), 5629-5637	10	2019
In situ fabrication of label-free optical sensing paper strips for the rapid surface-enhanced Raman scattering (SERS) detection of brassinosteroids in plant tissues M Chen, Z Zhang, M Liu, C Qiu, H Yang, X Chen Talanta 165, 313-320	10	2017
Recursive wavelet peak detection of analytical signals X Tong, Z Zhang, F Zeng, C Fu, P Ma, Y Peng, H Lu, Y Liang Chromatographia 79 (19-20), 1247-1255	10	2016
Simultaneous determination of neutral and uronic sugars based on UV–vis spectrometry combined with PLS CH Zhang, YH Yun, ZM Zhang, YZ Liang International journal of biological macromolecules 87, 290-294	10	2016
Feature extraction from resolution perspective for gas chromatographymass spectrometry datasets P Ma, Z Zhang, X Zhou, Y Yun, Y Liang, H Lu RSC advances 6 (115), 113997-114004	10	2016

TITLE	CITED BY	YEAR
Simultaneous determination of lead and tin at the bismuth film electrode by square wave stripping voltammetry and chemometric methods W Tang, J Bin, W Fan, Z Zhang, Y Yun, Y Liang Analytical Methods 8 (27), 5475-5486	10	2016
Core-shell-satellite microspheres-modified glass capillary for microsampling and ultrasensitive SERS spectroscopic detection of methotrexate in serum M Chen, J Tang, W Luo, Z Zhang, Y Zhu, R Wang, H Yang, X Chen Sensors and Actuators B: Chemical 275, 267-276	g 9	2018
Direct calibration transfer to principal components via canonical correlation analysis X Fan, H Lu, Z Zhang Chemometrics and Intelligent Laboratory Systems 181, 21-28	8	2018
KPIC2: an effective framework for mass spectrometry-based metabolomics using pure ion chromatograms H Ji, F Zeng, Y Xu, H Lu, Z Zhang Analytical chemistry 89 (14), 7631-7640	8	2017
Application of sparse linear discriminant analysis for metabolomics data M Ouyang, Z Zhang, C Chen, X Liu, Y Liang Analytical methods 6 (22), 9037-9044	8	2014
Supervised principal components: a new method for multivariate spectral analysis J Bin, FF Ai, N Liu, ZM Zhang, YZ Liang, RX Shu, K Yang Journal of Chemometrics 27 (12), 457-465	8	2013
Automatic standardization method for Raman spectrometers with applications to pharmaceuticals H Chen, ZM Zhang, L Miao, DJ Zhan, YB Zheng, Y Liu, F Lu, YZ Liang Journal of Raman Spectroscopy 46 (1), 147-154	7	2015
Evaluation and prediction of the antioxidant activity of Epimedium from multi-wavelength chromatographic fingerprints and chemometrics L Zhang, Z Zhang, Q Luo, H Lu, Y Liang Analytical Methods 6 (4), 1036-1043	7	2014
Application of Subwindow Factor Analysis and Mass Spectral information for accurate alignment of non-targeted metabolic profiling TB Yang, P Yan, M He, L Hong, R Pei, ZM Zhang, LZ Yi, XY Yuan Journal of Chromatography A 1563, 162-170	or 6	2018
Shrunken centroids regularized discriminant analysis as a promising strategy for metabolomics data exploration C Chen, ZM Zhang, ML Ouyang, X Liu, L Yi, YZ Liang, CP Zhang Journal of Chemometrics 29 (3), 154-164	6	2015
Mixture analysis using reverse searching and non-negative least squares ZM Zhang, XQ Chen, HM Lu, YZ Liang, W Fan, D Xu, J Zhou, F Ye, Chemometrics and Intelligent Laboratory Systems 137, 10-20	6	2014
UPLC-ESI-IT-TOF-MS metabolomic study of the therapeutic effect of Xuefu Zhuyu decoction on rats with traumatic brain injury C Fu, Q Wu, Z Zhang, Z Xia, H Ji, H Lu, Y Wang Journal of ethnopharmacology 245, 112149	J 5	2019

TITLE	CITED BY	YEAR
Pure ion chromatogram extraction via optimal k-means clustering H Ji, H Lu, Z Zhang RSC advances 6 (62), 56977-56985	5	2016
Unitary and binary chromatographic fingerprints analysis of Epimedium L Zhang, Z Zhang, J Huang, Y Jin, H Lu Analytical Methods 5 (19), 5331-5338	5	2013
Sample classification of GC-ToF-MS metabolomics data without the requirement for chromatographic deconvolution H Lu, D Gan, Z Zhang, Y Liang Metabolomics 7 (2), 191-205	5	2011
Comprehensive metabolic profiles of seminal plasma with different forms of male infertility and their correlation with sperm parameters Y Xu, H Lu, Y Wang, Z Zhang, Q Wu Journal of Pharmaceutical and Biomedical Analysis 177, 112888	f 4	2020
Fast pure ion chromatograms extraction method for LC-MS R Wang, H Ji, P Ma, H Zeng, Y Xu, ZM Zhang, HM Lu Chemometrics and Intelligent Laboratory Systems 170, 68-74	4	2017
Rapid determination of unsaturated fatty acids in vegetable oil by Raman spectroscopy and chemometrics J Bin, F Ai, W Fan, J Zhou, Z Zhang Analytical Letters 49 (6), 831-842	4	2016
Dynamic metabolic profiling of urine from type 2 diabetic KK-Ay mice treate with repaglinide by GC-MS H Yi, L Yi, R He, Q Lv, X Ren, Z Zhang, Y Liang, J He Analytical letters 45 (13), 1862-1874	ed 4	2012
Chemical Fingerprint Analysis for Quality Control of <i>Herba Ephedrae</i> Based on HPLC-DAD Combined with Chemometrics Methods X Ren, Y Liang, X Li, H Yi, Z Zhang Analytical letters 45 (13), 1824-1835	d 4	2012
Absolute quantitative imaging of sphingolipids in brain tissue by exhaustive liquid microjunction surface sampling–liquid chromatography–mass spectrometry Q Wu, Z Huang, Y Wang, Z Zhang, H Lu Journal of Chromatography A 1609, 460436	3	2020
GC-MS profiling of leukemia cells: an optimized preparation protocol for the intracellular metabolome Y He, ZM Zhang, P Ma, HC Ji, HM Lu Analytical Methods 10 (10), 1266-1274	3	2018
Robust alignment of chromatograms by statistically analyzing the shifts matrix generated by moving window fast Fourier transform cross-correlation M Zhang, M Wen, ZM Zhang, H Lu, Y Liang, D Zhan Journal of Separation Science 38 (6), 965-974	3 1	2015

TITLE	CITED BY	YEAR
Enhancing coverage in LC–MS-based untargeted metabolomics by a new sample preparation procedure using mixed-mode solid-phase extraction and two derivatizations Q Wu, Y Xu, H Ji, Y Wang, Z Zhang, H Lu Analytical and bioanalytical chemistry 411 (23), 6189-6202	2 d	2019
Characterizing semen abnormality male infertility using non-targeted blood plasma metabolomics P Ma, Z Zhang, X Zhou, J Luo, H Lu, Y Wang PloS one 14 (7), e0219179	2	2019
Parallel formula generator based on branch-and-bound algorithm for elucidating high resolution mass spectra M Zhang, Z Zhang, C Chen, H Lu, Y Liang Chemometrics and Intelligent Laboratory Systems 153, 106-109	2	2016
基于 Arduino 和 Python 搭建的实时在线 pH 测量平台 宾俊,艾芳芳,刘念,张志敏,梁逸曾 计算机与应用化学, 48-52	2	2013
Investigation of chemical components variation in maxing shigan decoction by HPLC-DAD M He, Y Liang, Z Zhang, Y Li, Z Zeng, D Cao, Y Yun, J Yan Journal of liquid chromatography & related technologies 35 (19), 2777-2794	2	2012
A novel storage method for near infrared spectroscopy chemometric model ZM Zhang, S Chen, YZ Liang Analytica Chimica Acta 668 (2), 149	s 2	2010
Scalable calibration transfer without standards via dynamic time warping fo near-infrared spectroscopy C Zou, H Zhu, J Shen, Y He, J Su, X Fan, H Lu, Z Zhang, Y Chen Analytical Methods 11 (35), 4481-4493	r 1	2019
Chemometrics in instrumental analysis of complex systems—in honor and memory of Yi-Zeng Liang Z Zhang, H Li, Y Yun, P Ma, L Yi, D Ren, L Zhang, J Yan, N Dong, B Deng, Journal of Chemometrics 32 (11), e3095	1	2018
Eliminating Non-linear Raman Shift Displacement Between Spectrometers via Moving Window Fast Fourier Transform Cross-Correlation H Chen, Y Liu, F Lu, Y Cao, ZM Zhang Frontiers in chemistry 6, 515	1	2018
TarMet: a reactive GUI tool for efficient and confident quantification of MS based targeted metabolic and stable isotope tracer analysis H Ji, Z Zhang, H Lu Metabolomics 14 (5), 68	1	2018
Structure-aware enhancement of imaging mass spectrometry data for semantic segmentation L Liang, Z Zhang Chemometrics and Intelligent Laboratory Systems 171, 259-265	1	2017

TITLE	CITED BY	YEAR
A GC-MS study of the stability of rat serum metabolome during the sample preparation procedure P Cai, J Huang, Z Zhang, H Lu Analytical Methods 5 (23), 6807-6813	1	2013
Separation of Glycolipids/Sphingolipids from Glycerophospholipids on TiO2 Coating in Aprotic Solvent for Rapid Comprehensive Lipidomic Analysis wit Liquid Microjunction Z Huang, Q Wu, H Lu, Y Wang, Z Zhang Analytical Chemistry		2020
Predicting a Molecular Fingerprint from an Electron Ionization Mass Spectrum with Deep Neural Networks H Ji, H Deng, H Lu, Z Zhang Analytical Chemistry 92 (13), 8649-8653		2020
Development of a sensitive and rapid UHPLC-MS/MS method for simultaneous quantification of nine compounds in rat plasma and application in a comparative pharmacokinetic study C Fu, Q Wu, Z Zhang, Z Xia, Z Liu, H Lu, Y Wang, G Huang Biomedical Chromatography, e4872		2020
Feature Extraction for LC–MS via Hierarchical Density Clustering H Zhu, Y Chen, C Liu, R Wang, G Zhao, B Hu, H Ji, ZM Zhang, H Lu Chromatographia 82 (10), 1449-1457		2019
MARS 2: A computational tool to resolve and extract features from large- scale GC-MS datasets P Ma, M Li, H Lu, Z Zhang Chemometrics and Intelligent Laboratory Systems 191, 12-20		2019
基于小波-反向搜索及表面增强拉曼的食品中色素的光谱定性分析 彭颖,张志敏,卢红梅,梁选曾,刘察,陈启振,刘国坤分析测试学报 36 (5),627-632		2017
利用混料设计和香农信息熵优化香烟主流烟气萃取溶液的配比李忠,黄静,张志敏,郑宜报,郭生云,梁逸曾计算机与应用化学30 (005),570-574		2013
卷烟烟气 GC/oa-TOF-MS 分析的萃取溶剂选择与程序升温时间优化李忠,黄静,梁逸曾,张志敏,郑宜报,郭生云烟草科技,31-35		2013