

Barry K Lavine

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1659500/publications.pdf>

Version: 2024-02-01

98
papers

2,518
citations

270111

25
h-index

263392

45
g-index

103
all docs

103
docs citations

103
times ranked

2281
citing authors

#	ARTICLE	IF	CITATIONS
1	Gluten Conformation at Different Temperatures and Additive Treatments. <i>Foods</i> , 2022, 11, 430.	1.9	5
2	Transmission Infrared Microscopy and Machine Learning Applied to the Forensic Examination of Original Automotive Paint. <i>Applied Spectroscopy</i> , 2022, 76, 118-131.	1.2	5
3	Application of infrared microscopy and alternating least squares to the forensic analysis of automotive paint chips. <i>Journal of Chemometrics</i> , 2021, 35, .	0.7	4
4	Chemometrics in forensic science. <i>Journal of Chemometrics</i> , 2021, 35, e3322.	0.7	2
5	Authentication of edible oils using Fourier transform infrared spectroscopy and pattern recognition methods. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2021, 210, 104251.	1.8	16
6	Comparison of Spectroscopic Techniques for Determining the Peroxide Value of 19 Classes of Naturally Aged, Plant-Based Edible Oils. <i>Applied Spectroscopy</i> , 2021, 75, 000370282199450.	1.2	6
7	Synthesis and Characterization of N-Isopropylacrylamide Microspheres as pH Sensors. <i>Sensors</i> , 2021, 21, 6493.	2.1	3
8	Incorporating brand variability into classification of edible oils by Raman spectroscopy. <i>Journal of Chemometrics</i> , 2020, 34, e3173.	0.7	12
9	Differentiation of Edible Oils by Type Using Raman Spectroscopy and Pattern Recognition Methods. <i>Applied Spectroscopy</i> , 2020, 74, 645-654.	1.2	14
10	Criteria for comparing infrared spectra – A review of the forensic and analytical chemistry literature. <i>Forensic Chemistry</i> , 2020, 18, 100224.	1.7	17
11	EXPRESS: Comparison of Spectroscopic Techniques for Determining the Peroxide Value of 19 Classes of Naturally Aged, Plant-Based Edible Oils. <i>Applied Spectroscopy</i> , 2020, , 000370282097470.	1.2	1
12	Swellable Copolymers of N-isopropylacrylamide and Alkyl Acrylic Acids for Optical pH Sensing. <i>Molecules</i> , 2020, 25, 1408.	1.7	3
13	Analysis of gentisic acid and related renal cell carcinoma biomarkers using reversed-phase liquid chromatography with water-rich mobile phases. <i>Journal of Liquid Chromatography and Related Technologies</i> , 2019, 42, 681-687.	0.5	2
14	pH sensing using whispering gallery modes of a silica hollow bottle resonator. <i>Talanta</i> , 2019, 194, 585-590.	2.9	19
15	Development of Infrared Library Search Prefilters for Automotive Clear Coats from Simulated Attenuated Total Reflection (ATR) Spectra. <i>Applied Spectroscopy</i> , 2018, 72, 886-895.	1.2	5
16	Transmission infrared imaging microscopy and multivariate curve resolution applied to the forensic examination of automotive paints. <i>Talanta</i> , 2018, 186, 662-669.	2.9	13
17	Chemometric Methods for Estimating the Strain Hardening Modulus in Polyethylene Resins. <i>Applied Spectroscopy</i> , 2018, 72, 463-475.	1.2	5
18	Library Search Prefilters for Vehicle Manufacturers to Assist in the Forensic Examination of Automotive Paints. <i>Applied Spectroscopy</i> , 2018, 72, 476-488.	1.2	14

#	ARTICLE	IF	CITATIONS
19	Development and validation of high performance liquid chromatographic method for determination of gentisic acid and related Renal Cell Carcinoma biomarkers in urine. <i>Microchemical Journal</i> , 2018, 137, 85-89.	2.3	15
20	Boosting the Performance of Genetic Algorithms for Variable Selection in Partial Least Squares Spectral Calibrations. <i>Applied Spectroscopy</i> , 2017, 71, 2092-2101.	1.2	9
21	Multivariate classification of disease phenotypes of esophageal adenocarcinoma by pattern recognition analysis of MALDI-TOF mass spectra of serum N-linked glycans. <i>Microchemical Journal</i> , 2017, 132, 83-88.	2.3	6
22	Pattern Recognition-Assisted Infrared Library Searching of the Paint Data Query Database to Enhance Lead Information from Automotive Paint Trace Evidence. <i>Applied Spectroscopy</i> , 2017, 71, 480-495.	1.2	19
23	Evidential significance of automotive paint trace evidence using a pattern recognition based infrared library search engine for the Paint Data Query Forensic Database. <i>Talanta</i> , 2016, 159, 317-329.	2.9	14
24	Forensic analysis of automotive paints using a pattern recognition assisted infrared library searching system: Ford (2000-2006). <i>Microchemical Journal</i> , 2016, 129, 173-183.	2.3	17
25	Pattern Recognition-Assisted Infrared Library Searching of Automotive Clear Coats. <i>Applied Spectroscopy</i> , 2015, 69, 84-94.	1.2	28
26	Odor-Structure Relationship Studies of Indan, Tetralin, and Isochroman Musks. <i>ACS Symposium Series</i> , 2015, , 333-359.	0.5	0
27	Improving Investigative Lead Information in the Forensic Examination of Automotive Paints. <i>ACS Symposium Series</i> , 2015, , 195-220.	0.5	2
28	Search prefilters to assist in library searching of infrared spectra of automotive clear coats. <i>Talanta</i> , 2015, 132, 182-190.	2.9	15
29	1,6- And 1,7-Regioisomers of Perylene Tetracarboxylic Dianhydride and Diimide: The Effects of Neutral Bay Substituents on the Electrochemical and Structural Properties. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2014, 189, 738-752.	0.8	9
30	Search prefilters for mid-infrared absorbance spectra of clear coat automotive paint smears using stacked and linear classifiers. <i>Journal of Chemometrics</i> , 2014, 28, 385-394.	0.7	24
31	Classification of the waxy condition of durum wheat by near infrared reflectance spectroscopy using wavelets and a genetic algorithm. <i>Microchemical Journal</i> , 2014, 117, 178-182.	2.3	18
32	Development of search prefilters for infrared library searching of clear coat paint smears. <i>Talanta</i> , 2014, 119, 331-340.	2.9	24
33	Search prefilters for library matching of infrared spectra in the PDQ database using the autocorrelation transformation. <i>Microchemical Journal</i> , 2014, 113, 30-35.	2.3	18
34	Simulation of Attenuated Total Reflection Infrared Absorbance Spectra: Applications to Automotive Clear Coat Forensic Analysis. <i>Applied Spectroscopy</i> , 2014, 68, 608-615.	1.2	13
35	Chemometrics. <i>Analytical Chemistry</i> , 2013, 85, 705-714.	3.2	79
36	Odor-Structure Relationship Studies of Tetralin and Indan Musks. <i>Chemical Senses</i> , 2012, 37, 723-736.	1.1	20

#	ARTICLE	IF	CITATIONS
37	Characterization of Swellable Molecularly Imprinted Polymer Particles by Surface Plasmon Resonance Spectroscopy. <i>Applied Spectroscopy</i> , 2012, 66, 440-446.	1.2	2
38	Pattern Recognition Assisted Infrared Library Searching. <i>Applied Spectroscopy</i> , 2012, 66, 917-925.	1.2	17
39	Development of carboxylic acid search prefilters for spectral library matching. <i>Microchemical Journal</i> , 2012, 103, 21-36.	2.3	12
40	Prediction of mold contamination from microbial volatile organic compound profiles using solid phase microextraction and gas chromatography/mass spectrometry. <i>Microchemical Journal</i> , 2012, 103, 37-41.	2.3	20
41	Analysis of vanilla extract by reversed phase liquid chromatography using water rich mobile phases. <i>Microchemical Journal</i> , 2012, 103, 49-61.	2.3	14
42	Prediction of mold contamination from microbial volatile organic compound profiles using head space gas chromatography/mass spectrometry. <i>Microchemical Journal</i> , 2012, 103, 119-124.	2.3	9
43	Analysis of chemical signals in red fire ants by gas chromatography and pattern recognition techniques. <i>Talanta</i> , 2011, 83, 1308-1316.	2.9	5
44	Wavelets and genetic algorithms applied to search prefilters for spectral library matching in forensics. <i>Talanta</i> , 2011, 87, 46-52.	2.9	27
45	Development of field-deployable instrumentation based on "antigen-antibody" reactions for detection of hemorrhagic disease in ruminants. <i>Microchemical Journal</i> , 2011, 99, 415-420.	2.3	1
46	Liquid chromatography-mass spectrometry identification of imidacloprid photolysis products. <i>Microchemical Journal</i> , 2011, 99, 535-541.	2.3	46
47	Separation of imidacloprid and its degradation products using reversed phase liquid chromatography with water rich mobile phases. <i>Journal of Chromatography A</i> , 2011, 1218, 9221-9226.	1.8	11
48	One stop shopping: feature selection, classification and prediction in a single step. <i>Journal of Chemometrics</i> , 2011, 25, 116-129.	0.7	24
49	LC-PDA-MS Studies of the Photochemical Degradation of Imidacloprid. <i>Analytical Letters</i> , 2010, 43, 1812-1821.	1.0	21
50	Analysis of chemical signals in red fire ants by gas chromatography and pattern recognition techniques. <i>Talanta</i> , 2010, 83, 216-224.	2.9	1
51	Chemometrics. <i>Analytical Chemistry</i> , 2010, 82, 4699-4711.	3.2	85
52	Identification and Quantitative Analysis of Acetaminophen, Acetylsalicylic Acid, and Caffeine in Commercial Analgesic Tablets by LC-MS. <i>Journal of Chemical Education</i> , 2010, 87, 838-841.	1.1	24
53	Chemometrics. <i>Analytical Chemistry</i> , 2008, 80, 4519-4531.	3.2	90
54	Swellable molecularly imprinted polyN-(N-propyl)acrylamide particles for detection of emerging organic contaminants using surface plasmon resonance spectroscopy. <i>Talanta</i> , 2007, 72, 1042-1048.	2.9	31

#	ARTICLE	IF	CITATIONS
55	Detection and identification of bacteria using antibiotic susceptibility and a multi-array electrochemical sensor with pattern recognition. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2643-2649.	5.3	63
56	Construction of an inexpensive surface plasmon resonance instrument for use in teaching and research. <i>Microchemical Journal</i> , 2007, 86, 147-155.	2.3	14
57	Chemometrics. <i>Analytical Chemistry</i> , 2006, 78, 4137-4145.	3.2	51
58	New Approaches to Chemical Sensing—Sensors Based on Polymer Swelling. <i>Analytical Letters</i> , 2006, 39, 1773-1783.	1.0	23
59	Pattern recognition analysis of differential mobility spectra with classification by chemical family. <i>Analytica Chimica Acta</i> , 2006, 579, 1-10.	2.6	41
60	Identification of Africanized honeybees. <i>Journal of Chromatography A</i> , 2005, 1096, 69-75.	1.8	16
61	Do these eggs smell funny to you?: an experimental study of egg discrimination by hosts of the social parasite <i>Polyergus breviceps</i> (Hymenoptera: Formicidae). <i>Behavioral Ecology and Sociobiology</i> , 2005, 57, 245-255.	0.6	32
62	Analysis of Odor Structure Relationships Using Electronic Van Der Waals Surface Property Descriptors and Genetic Algorithms. <i>ACS Symposium Series</i> , 2005, , 127-143.	0.5	0
63	Chemometrics: Past, Present, and Future. <i>ACS Symposium Series</i> , 2005, , 1-13.	0.5	9
64	Multiarrray Sensors with Pattern Recognition for the Detection, Classification, and Differentiation of Bacteria at Subspecies and Strain Levels. <i>Analytical Chemistry</i> , 2005, 77, 7941-7949.	3.2	83
65	Genetic Algorithms for Classification of Olfactory Stimulants. <i>Methods in Molecular Biology</i> , 2004, 275, 399-425.	0.4	3
66	Varimax extended rotation applied to multivariate spectroscopic image analysis. <i>Microchemical Journal</i> , 2004, 76, 173-180.	2.3	14
67	Chemometrics. <i>Analytical Chemistry</i> , 2004, 76, 3365-3372.	3.2	68
68	Spectral Pattern Recognition Using Self-Organizing MAPS. <i>Journal of Chemical Information and Computer Sciences</i> , 2004, 44, 1056-1064.	2.8	23
69	Machine Learning Based Pattern Recognition Applied to Microarray Data. <i>Combinatorial Chemistry and High Throughput Screening</i> , 2004, 7, 115-131.	0.6	35
70	Electronic van der Waals Surface Property Descriptors and Genetic Algorithms for Developing Structure—Activity Correlations in Olfactory Databases. <i>Journal of Chemical Information and Computer Sciences</i> , 2003, 43, 1890-1905.	2.8	36
71	MODELING SOLUTE TRANSPORT IN MICELLAR LIQUID CHROMATOGRAPHY. <i>Separation Science and Technology</i> , 2002, 37, 3443-3464.	1.3	5
72	Chemometrics. <i>Analytical Chemistry</i> , 2002, 74, 2763-2770.	3.2	63

#	ARTICLE	IF	CITATIONS
73	Multivariate curve resolution in liquid chromatography—resolving two-way multi-component data using a Varimax extended rotation. <i>Microchemical Journal</i> , 2002, 72, 163-178.	2.3	13
74	Enhancement of selectivity in reversed-phase liquid chromatography. <i>Journal of Chromatography A</i> , 2002, 946, 83-90.	1.8	20
75	Host queen killing by a slave-maker ant queen: when is a host queen worth attacking?. <i>Animal Behaviour</i> , 2002, 64, 807-815.	0.8	13
76	Changes in the cuticular hydrocarbon profile of the slave-maker ant queen, <i>Polyergus breviceps emery</i> , after killing a <i>Formica</i> host queen (Hymenoptera: Formicidae). <i>Journal of Chemical Ecology</i> , 2001, 27, 1787-1804.	0.9	60
77	Chemometrics. <i>Analytical Chemistry</i> , 2000, 72, 91-98.	3.2	94
78	Selectivity in Micellar Liquid Chromatography. <i>ACS Symposium Series</i> , 1999, , 290-313.	0.5	9
79	A genetic algorithm for pattern recognition analysis of pyrolysis gas chromatographic data. <i>Journal of Analytical and Applied Pyrolysis</i> , 1999, 50, 47-62.	2.6	26
80	Genetic Algorithms Applied to Pattern Recognition Analysis of High-Speed Gas Chromatograms of Aviation Turbine Fuels Using an Integrated Jet-A/JP-8 Database. <i>Microchemical Journal</i> , 1999, 61, 69-78.	2.3	24
81	<title>Genetic algorithms for pattern recognition analysis and fusion of sensor data</title>. , 1999, 3854, 103.		8
82	Fuel Spill Identification by Gas Chromatography - Genetic Algorithms/Pattern Recognition Techniques. <i>Analytical Letters</i> , 1998, 31, 2805-2822.	1.0	14
83	Chemometrics. <i>Analytical Chemistry</i> , 1998, 70, 209-228.	3.2	111
84	Selectivity in Micellar Liquid Chromatography: Surfactant Bonded Phase Interactions. I. C-18. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1997, 20, 351-376.	0.5	7
85	Selectivity in Micellar Liquid Chromatography: Surfactant Bonded Phase Interactions. II. C-8 and Cyanopropyl. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1997, 20, 377-402.	0.5	9
86	Chemometrics. <i>Analytical Chemistry</i> , 1996, 68, 21-62.	3.2	132
87	Band Broadening in Micellar Liquid Chromatography. <i>Journal of Liquid Chromatography and Related Technologies</i> , 1996, 19, 101-123.	0.5	23
88	Source Identification of Underground Fuel Spills by Pattern Recognition Analysis of High-Speed Gas Chromatograms. <i>Analytical Chemistry</i> , 1995, 67, 3846-3852.	3.2	58
89	False color data imaging: A new pattern recognition technique for analyzing chromatographic profile data. <i>Microchemical Journal</i> , 1990, 41, 288-295.	2.3	9
90	The effect of mislabeled samples on the performance of the linear learning machine. <i>Journal of Chemometrics</i> , 1990, 4, 47-50.	0.7	0

#	ARTICLE	IF	CITATIONS
91	Pattern recognition studies in chemical communication: Nestmate recognition in <i>Camponotus floridanus</i> . <i>Chemometrics and Intelligent Laboratory Systems</i> , 1990, 9, 107-114.	1.8	7
92	Application of Micellar Liquid Chromatography to Modeling of Organic Compounds by Quantitative Structure-Activity Relationships. <i>ACS Symposium Series</i> , 1989, , 123-131.	0.5	0
93	Application of gas chromatography/pattern recognition techniques to the problem of identifying Africanized honeybees. <i>Microchemical Journal</i> , 1989, 39, 308-316.	2.3	7
94	Temporal changes in colony cuticular hydrocarbon patterns of <i>Solenopsis invicta</i> . <i>Journal of Chemical Ecology</i> , 1989, 15, 2115-2125.	0.9	130
95	Ontogeny of nestmate recognition cues in the red carpenter ant (<i>Camponotus floridanus</i>). <i>Behavioral Ecology and Sociobiology</i> , 1988, 22, 175-183.	0.6	113
96	European bee or Africanized bee? Species identification through chemical analysis. <i>Analytical Chemistry</i> , 1987, 59, 468A-470A.	3.2	15
97	Structure-activity studies of musk odorants using pattern recognition: bicyclo- and tricyclo-benzenoids. <i>Chemical Senses</i> , 1986, 11, 145-156.	1.1	32
98	Application of pyrolysis/gas chromatography/pattern recognition to the detection of cystic fibrosis heterozygotes. <i>Analytical Chemistry</i> , 1985, 57, 295-302.	3.2	46