Achim Kohler

List of Publications by Year
in descending order

184 papers	6,190 citations	57758 44 h-index	95266 68 g-index
193 all docs	193 docs citations	193 times ranked	5824 citing authors

#	Article	IF	Citations
1	Resonant Mie Scattering (RMieS) correction of infrared spectra from highly scattering biological samples. Analyst, The, 2010, 135, 268-277.	3.5	332
2	Optimizing Savitzkyâ€“Golay Parameters for Improving Spectral Resolution and Quantification in Infrared Spectroscopy. Applied Spectroscopy, 2013, 67, 892-902.	2.2	186
3	Extended multiplicative signal correction in vibrational spectroscopy, a tutorial. Chemometrics and Intelligent Laboratory Systems, 2012, 117, 92-99.	3.5	174
4	Estimating and Correcting Mie Scattering in Synchrotron-Based Microscopic Fourier Transform Infrared Spectra by Extended Multiplicative Signal Correction. Applied Spectroscopy, 2008, 62, 259-266.	2.2	158
5	Extended Multiplicative Signal Correction as a Tool for Separation and Characterization of Physical and Chemical Information in Fourier Transform Infrared Microscopy Images of Cryo-Sections of Beef Loin. Applied Spectroscopy, 2005, 59, 707-716.	2.2	142
6	Application of PLS-DA in multivariate image analysis. Journal of Chemometrics, 2006, 20, 221-229.	1.3	136
7	Heat-Induced Changes in Myofibrillar Protein Structures and Myowater of Two Pork Qualities. A Combined FT-IR Spectroscopy and Low-Field NMR Relaxometry Study. Journal of Agricultural and Food Chemistry, 2006, 54, 1740-1746.	5.2	130
8	FTIR Spectroscopy for Evaluation and Monitoring of Lipid Extraction Efficiency for Oleaginous Fungi. PLoS ONE, 2017, 12, e0170611.	2.5	118
9	FTIR microscopy of biological cells and tissue: data analysis using resonant Mie scattering (RMieS) EMSC algorithm. Analyst, The, 2012, 137, 1370.	3.5	117
10	Sensory qualities of whole wheat pan breadâ€”influence of farming system, milling and baking technique. Journal of Cereal Science, 2004, 39, 67-84.	3.7	116
11	RMieSâ€EMSC correction for infrared spectra of biological cells: Extension using full Mie theory and GPU computing. Journal of Biophotonics, 2010, 3, 609-620.	2.3	116
12	Influence of Aging and Salting on Protein Secondary Structures and Water Distribution in Uncooked and Cooked Pork. A Combined FT-IR Microspectroscopy and 1H NMR Relaxometry Study. Journal of Agricultural and Food Chemistry, 2006, 54, 8589-8597.	5.2	98
13	Modelâ€based preâ€processing in Raman spectroscopy of biological samples. Journal of Raman Spectroscopy, 2016, 47, 643-650.	2.5	98
14	FT-IR spectroscopy for identification of closely related lactobacilli. Journal of Microbiological Methods, 2004, 59, 149-162.	1.6	97
15	Explorative Multifactor Approach for Investigating Global Survival Mechanisms of Campylobacter jejuni under Environmental Conditions. Applied and Environmental Microbiology, 2005, 71, 2086-2094.	3.1	83
16	Revealing Covariance Structures in Fourier Transform Infrared and Raman Microspectroscopy Spectra: A Study on Pork Muscle Fiber Tissue Subjected to Different Processing Parameters. Applied Spectroscopy, 2007, 61, 1032-1039.	2.2	83
17	Infrared Spectroscopy of Pollen Identifies Plant Species and Genus as Well as Environmental Conditions. PLoS ONE, 2014, 9, e95417.	2.5	83
18	Fourier Transform Infrared and Raman Spectroscopy for Characterization of Listeria monocytogenes Strains. Applied and Environmental Microbiology, 2006, 72, 228-232.	3.1	79

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19	Monitoring of Denaturation Processes in Aged Beef Loin by Fourier Transform Infrared Microspectroscopy. Journal of Agricultural and Food Chemistry, 2004, 52, 3920-3929.	5.2	76
20	Monitoring Protein Structural Changes and Hydration in Bovine Meat Tissue Due to Salt Substitutes by Fourier Transform Infrared (FTIR) Microspectroscopy. Journal of Agricultural and Food Chemistry, 2011, 59, 10052-10061.	5.2	73
21	Correcting Attenuated Total Reflectionâ€"Fourier Transform Infrared Spectra for Water Vapor and Carbon Dioxide. Applied Spectroscopy, 2006, 60, 1029-1039.	2.2	70
22	Biochemical profiling, prediction of total lipid content and fatty acid profile in oleaginous yeasts by FTIR spectroscopy. Biotechnology for Biofuels, 2019, 12, 140.	6.2	70
23	Salt-Induced Changes in Pork Myofibrillar Tissue Investigated by FT-IR Microspectroscopy and Light Microscopy. Journal of Agricultural and Food Chemistry, 2006, 54, 6733-6740.	5.2	65
24	Characterization of food spoilage fungi by FTIR spectroscopy. Journal of Applied Microbiology, 2013, 114, 788-796.	3.1	64
25	Fish Oil Supplementation Alters the Plasma Lipidomic Profile and Increases Long-Chain PUFAs of Phospholipids and Triglycerides in Healthy Subjects. PLoS ONE, 2012, 7, e42550.	2.5	63
26	Fourier transform infrared spectroscopy for the prediction of fatty acid profiles in Mucor fungi grown in media with different carbon sources. Microbial Cell Factories, 2014, 13, 86.	4.0	63
27	A Multiscale Vibrational Spectroscopic Approach for Identification and Biochemical Characterization of Pollen. PLoS ONE, 2015, 10, e0137899.	2.5	63
28	Microtiter plate cultivation of oleaginous fungi and monitoring of lipogenesis by high-throughput FTIR spectroscopy. Microbial Cell Factories, 2017, 16, 101.	4.0	62
29	High-throughput screening of Mucoromycota fungi for production of low- and high-value lipids. Biotechnology for Biofuels, 2018, 11, 66.	6.2	60
30	Noncontact Salt and Fat Distributional Analysis in Salted and Smoked Salmon Fillets Using X-ray Computed Tomography and NIR Interactance Imaging. Journal of Agricultural and Food Chemistry, 2009, 57, 1705-1710.	5.2	58
31	Multivariate image analysis of a set of FTIR microspectroscopy images of aged bovine muscle tissue combining image and design information. Analytical and Bioanalytical Chemistry, 2007, 389, 1143-1153.	3.7	57
32	A highâ€throughput microcultivation protocol for FTIR spectroscopic characterization and identification of fungi. Journal of Biophotonics, 2010, 3, 512-521.	2.3	56
33	Complex Phenotypic and Genotypic Responses of Listeria monocytogenes Strains Exposed to the Class IIa Bacteriocin Sakacin P. Applied and Environmental Microbiology, 2009, 75, 6973-6980.	3.1	53
34	FTIR spectroscopy as a unified method for simultaneous analysis of intra- and extracellular metabolites in high-throughput screening of microbial bioprocesses. Microbial Cell Factories, 2017, 16, 195.	4.0	52
35	Physics-Based Multiplicative Scatter Correction Approaches for Improving the Performance of Calibration Models. Applied Spectroscopy, 2006, 60, 315-321.	2.2	50
36	Myowater Dynamics and Protein Secondary Structural Changes As Affected by Heating Rate in Three Pork Qualities:Â A Combined FT-IR Microspectroscopic and1H NMR Relaxometry Study. Journal of Agricultural and Food Chemistry, 2007, 55, 3990-3997.	5.2	49

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37	Vibrational microspectroscopy enables chemical characterization of single pollen grains as well as comparative analysis of plant species based on pollen ultrastructure. Planta, 2015, 242, 1237-1250.	3.2	49
38	Spectroscopic signatures of single, isolated cancer cell nuclei using synchrotron infrared microscopy. Analyst, The, 2009, 134, 1176.	3.5	48
39	Parametric correlations of the energy levels of ray-splitting billiards. Physical Review E, 2001, 64, 036211.	2.1	47
40	Analysis of Allergenic Pollen by FTIR Microspectroscopy. Analytical Chemistry, 2016, 88, 803-811.	6.5	47
41	Ambient oxygen ingress rate method?an alternative method to Ox-Tran for measuring oxygen transmission rate of whole packages. Packaging Technology and Science, 2000, 13, 233-241.	2.8	46
42	Synchrotron-based FTIR spectra of stained single cells. Towards a clinical application in pathology. Laboratory Investigation, 2010, 90, 797-807.	3.7	46
43	FT-IR microspectroscopy as a tool to assess lung cancer cells response to chemotherapy. Vibrational Spectroscopy, 2005, 38, 179-184.	2.2	45
44	Global responses ofEscherichia colito adverse conditions determined by microarrays and FT-IR spectroscopy. Canadian Journal of Microbiology, 2009, 55, 714-728.	1.7	44
45	Soft Texture of Atlantic Salmon Fillets Is Associated with Glycogen Accumulation. PLoS ONE, 2014, 9, e85551.	2.5	44
46	Pre-processing in biochemometrics: correction for path-length and temperature effects of water in FTIR bio-spectroscopy by EMSC. Journal of Chemometrics, 2006, 20, 402-417.	1.3	43
47	FT-IR microspectroscopy: a promising method for the rapid identification ofListeriaspecies. FEMS Microbiology Letters, 2008, 278, 164-170.	1.8	43
48	Towards models for the prediction of beef meat quality during cooking. Meat Science, 2014, 97, 323-331.	5.5	43
49	Determination of C22:5 and C22:6 marine fatty acids in pork fat with Fourier transform mid-infrared spectroscopy. Meat Science, 2005, 69, 433-440.	5.5	42
50	FT-IR microspectroscopy for early identification of some clinically relevant pathogens. Journal of Applied Microbiology, 2006, 101, 785-797.	3.1	42
51	Analysis of -omics data: Graphical interpretation- and validation tools in multi-block methods. Chemometrics and Intelligent Laboratory Systems, 2010, 104, 140-153.	3.5	42
52	Predicting the Fatty Acid Composition of Milk: A Comparison of Two Fourier Transform Infrared Sampling Techniques. Applied Spectroscopy, 2010, 64, 700-707.	2.2	42
53	Monitoring of plantâ€“environment interactions by highâ€throughput <scp>FTIR</scp> spectroscopy of pollen. Methods in Ecology and Evolution, 2017, 8, 870-880.	5.2	42
54	Microcultivation and FTIR spectroscopy-based screening revealed a nutrient-induced co-production of high-value metabolites in oleaginous Mucoromycota fungi. PLoS ONE, 2020, 15, e0234870.	2.5	42

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55	Effects of Brine Salting with Regard to Raw Material Variation of Atlantic Salmon (<i>Salmo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf Agricultural and Food Chemistry, 2008, 56, 5129-5137.	5.2	41
56	Monitoring Secondary Structural Changes in Salted and Smoked Salmon Muscle Myofiber Proteins by FT-IR Microspectroscopy. Journal of Agricultural and Food Chemistry, 2009, 57, 3563-3570.	5.2	41
57	Characterizing Aeroallergens by Infrared Spectroscopy of Fungal Spores and Pollen. PLoS ONE, 2015, 10, e0124240.	2.5	40
58	Mie scatter corrections in single cell infrared microspectroscopy. Faraday Discussions, 2016, 187, 235-257.	3.2	40
59	Reducing Inter-Replicate Variation in Fourier Transform Infrared Spectroscopy by Extended Multiplicative Signal Correction. Applied Spectroscopy, 2009, 63, 296-305.	2.2	38
60	Extrusion of Barley and Oat Improves the Bioaccessibility of Dietary Phenolic Acids in Growing Pigs. Journal of Agricultural and Food Chemistry, 2013, 61, 2739-2747.	5.2	38
61	High-Throughput Biochemical Fingerprinting of Saccharomyces cerevisiae by Fourier Transform Infrared Spectroscopy. PLoS ONE, 2015, 10, e0118052.	2.5	38
62	Characterizing mixed microbial population dynamics using time-series analysis. ISME Journal, 2008, 2, 707-715.	9.8	37
63	Oleaginous yeasts respond differently to carbon sources present in lignocellulose hydrolysate. Biotechnology for Biofuels, 2021, 14, 124.	6.2	37
64	Comparison of augmentation and pre-processing for deep learning and chemometric classification of infrared spectra. Chemometrics and Intelligent Laboratory Systems, 2021, 215, 104367.	3.5	35
65	Unravelling genetic variation underlying de novo-synthesis of bovine milk fatty acids. Scientific Reports, 2018, 8, 2179.	3.3	34
66	Fish oil supplementation induces expression of genes related to cell cycle, endoplasmic reticulum stress and apoptosis in peripheral blood mononuclear cells: a transcriptomic approach. Journal of Internal Medicine, 2014, 276, 498-511.	6.0	33
67	Extended Multiplicative Signal Correction Based Model Transfer for Raman Spectroscopy in Biological Applications. Analytical Chemistry, 2018, 90, 9787-9795.	6.5	32
68	Merging FT-IR and NGS for simultaneous phenotypic and genotypic identification of pathogenic Candida species. PLoS ONE, 2017, 12, e0188104.	2.5	31
69	The influence of phosphorus source and the nature of nitrogen substrate on the biomass production and lipid accumulation in oleaginous Mucoromycota fungi. Applied Microbiology and Biotechnology, 2020, 104, 8065-8076.	3.6	31
70	Autocorrelation function of level velocities for ray-splitting billiards. Physical Review E, 2000, 61, 366-370.	2.1	30
71	Monitoring cellular responses upon fatty acid exposure by Fourier transform infrared spectroscopy and Raman spectroscopy. Analyst, The, 2011, 136, 1649.	3.5	29
72	A highâ€throughput FTIR spectroscopy approach to assess adaptive variation in the chemical composition of pollen. Ecology and Evolution, 2017, 7, 10839-10849.	1.9	29

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73	The use of Fourierâ€transform infrared spectroscopy to characterize connective tissue components in skeletal muscle of Atlantic cod (Gadus morhua L.). Journal of Biophotonics, 2019, 12, e201800436.	2.3	29
74	Evaluation of the robustness of FT-IR spectra of lactobacilli towards changes in the bacterial growth conditions. FEMS Microbiology Letters, 2004, 239, 111-116.	1.8	28
75	Analysis of covariance patterns in gene expression data and FT-IR spectra. Journal of Microbiological Methods, 2006, 65, 573-584.	1.6	28
76	An openâ€source code for Mie extinction extended multiplicative signal correction for infrared microscopy spectra of cells and tissues. Journal of Biophotonics, 2019, 12, e201800415.	2.3	28
77	Comparison of Sparse and Jack-knife partial least squares regression methods for variable selection. Chemometrics and Intelligent Laboratory Systems, 2013, 122, 65-77.	3.5	27
78	Sparse multi-block PLSR for biomarker discovery when integrating data from LCâ€“MS and NMR metabolomics. Metabolomics, 2015, 11, 367-379.	3.0	27
79	Assessment of the scalability of a microtiter plate system for screening of oleaginous microorganisms. Applied Microbiology and Biotechnology, 2018, 102, 4915-4925.	3.6	27
80	Shedding new light on Hierarchical Principal Component Analysis. Journal of Chemometrics, 2010, 24, 703-709.	1.3	26
81	Characterising protein, salt and water interactions with combined vibrational spectroscopic techniques. Food Chemistry, 2013, 138, 679-686.	8.2	26
82	Fringes in FTIR spectroscopy revisited: understanding and modelling fringes in infrared spectroscopy of thin films. Analyst, The, 2015, 140, 3969-3980.	3.5	25
83	Recovery of absorbance spectra of micrometer-sized biological and inanimate particles. Analyst, The, 2015, 140, 3273-3284.	3.5	25
84	Determination of Sodium Chloride in Pork Meat by Computed Tomography at Different Voltages. Journal of Food Science, 2008, 73, E333-9.	3.1	23
85	Infrared refractive index dispersion of polymethyl methacrylate spheres from Mie ripples in Fourier-transform infrared microscopy extinction spectra. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 1687.	1.5	23
86	An improved algorithm for fast resonant Mie scatter correction of infrared spectra of cells and tissues. Journal of Biophotonics, 2018, 11, e201600307.	2.3	23
87	Ray splitting in a class of chaotic triangular step billiards. Physical Review E, 1997, 56, 2691-2701.	2.1	22
88	Multivariate analysis of multiblock and multigroup data. Chemometrics and Intelligent Laboratory Systems, 2014, 133, 63-69.	3.5	22
89	Annular ray-splitting billiard. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 238, 271-277.	2.1	21
90	Extended multiplicative signal correction for FTIR spectral quality test and preâ€processing of infrared imaging data. Journal of Biophotonics, 2020, 13, e201960112.	2.3	21

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91	Revealing the Potential of Lipid and Î²-Glucans Coproduction in Basidiomycetes Yeast. Microorganisms, 2020, 8, 1034.	3.6	20
92	Weyl Formulas for Quantum Ray-Splitting Billiards. Annals of Physics, 1998, 267, 249-280.	2.8	19
93	FTIR spectroscopic discrimination of Saccharomyces cerevisiae and Saccharomyces bayanus strains. Canadian Journal of Microbiology, 2010, 56, 793-801.	1.7	19
94	Metal and Phosphate Ions Show Remarkable Influence on the Biomass Production and Lipid Accumulation in Oleaginous Mucor circinelloides. Journal of Fungi (Basel, Switzerland), 2020, 6, 260.	3.5	19
95	Sorting salted cod fillets by computer vision: a pilot study. Computers and Electronics in Agriculture, 2002, 36, 3-16.	7.7	18
96	Connections between multiple co-inertia analysis and consensus principal component analysis. Chemometrics and Intelligent Laboratory Systems, 2011, 106, 37-40.	3.5	18
97	FTIR spectroscopic characterization of differently cultivated food related yeasts. Analyst, The, 2013, 138, 4129.	3.5	18
98	Deflation strategies for multi-block principal component analysis revisited. Chemometrics and Intelligent Laboratory Systems, 2013, 120, 154-168.	3.5	18
99	Combining Chemical Information From Grass Pollen in Multimodal Characterization. Frontiers in Plant Science, 2019, 10, 1788.	3.6	18
100	Biotransformation of Animal Fat-By Products into ARA-Enriched Fermented Bioproducts by Solid-State Fermentation of Mortierella alpina. Journal of Fungi (Basel, Switzerland), 2020, 6, 236.	3.5	18
101	Origin of micro-scale heterogeneity in polymerisation of photo-activated resin composites. Nature Communications, 2020, 11, 1849.	12.8	18
102	Evaluation and optimisation of direct transesterification methods for the assessment of lipid accumulation in oleaginous filamentous fungi. Microbial Cell Factories, 2021, 20, 59.	4.0	18
103	Characterizing salt substitution in beef meat processing by vibrational spectroscopy and sensory analysis. Meat Science, 2013, 95, 576-585.	5.5	17
104	Standard Normal Variate, Multiplicative Signal Correction and Extended Multiplicative Signal Correction Preprocessing in Biospectroscopy. , 2009, , 139-162.		16
105	Genome-wide association mapping for milk fat composition and fine mapping of a QTL for de novo synthesis of milk fatty acids on bovine chromosome 13. Genetics Selection Evolution, 2017, 49, 20.	3.0	16
106	A novel library-independent approach based on high-throughput cultivation in Bioscreen and fingerprinting by FTIR spectroscopy for microbial source tracking in food industry. Letters in Applied Microbiology, 2017, 64, 335-342.	2.2	16
107	Hierarchical classification of microorganisms based on highâ€dimensional phenotypic data. Journal of Biophotonics, 2018, 11, e201700047.	2.3	16
108	Obesity-Related Metabolome and Gut Microbiota Profiles of Juvenile GÃ¶ttingen Minipigsâ€”Long-Term Intake of Fructose and Resistant Starch. Metabolites, 2020, 10, 456.	2.9	16

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109	Discrimination of grass pollen of different species by FTIR spectroscopy of individual pollen grains. Analytical and Bioanalytical Chemistry, 2020, 412, 6459-6474.	3.7	16
110	Calcium Affects Polyphosphate and Lipid Accumulation in Mucoromycota Fungi. Journal of Fungi (Basel, Switzerland), 2021, 7, 300.	3.5	16
111	Microstructure and sensory properties of high pressure processed dressings stabilized by different whey proteins. Food Hydrocolloids, 2006, 20, 650-662.	10.7	15
112	Caprine CSN1S1 haplotype effect on gene expression and milk composition measured by Fourier transform infrared spectroscopy. Journal of Dairy Science, 2010, 93, 4340-4350.	3.4	15
113	Genetic and environmental information in goat milk Fourier transform infrared spectra. Journal of Dairy Science, 2013, 96, 3973-3985.	3.4	15
114	Hot PLSâ€”a framework for hierarchically ordered taxonomic classification by partial least squares. Chemometrics and Intelligent Laboratory Systems, 2014, 138, 41-47.	3.5	15
115	Isolation and characterization of fastâ€growing green snow bacteria from coastal East Antarctica. MicrobiologyOpen, 2021, 10, e1152.	3.0	15
116	Estimating and correcting interference fringes in infrared spectra in infrared hyperspectral imaging. Analyst, The, 2018, 143, 4674-4683.	3.5	14
117	Deep convolutional neural network recovers pure absorbance spectra from highly scatterâ€distorted spectra of cells. Journal of Biophotonics, 2020, 13, e202000204.	2.3	14
118	Model validation and error estimation in multi-block partial least squares regression. Chemometrics and Intelligent Laboratory Systems, 2012, 117, 42-53.	3.5	13
119	Assessment of Biotechnologically Important Filamentous Fungal Biomass by Fourier Transform Raman Spectroscopy. International Journal of Molecular Sciences, 2021, 22, 6710.	4.1	13
120	Predicting changes in oxygen concentration in the headspace of nitrogen flushed packages by the ambient oxygen ingress rate method. Packaging Technology and Science, 2002, 15, 139-146.	2.8	12
121	Analysis of Megavariate Data in Functional Genomics. , 2009, , 221-278.		12
122	Algorithms for multiâ€group PLS. Journal of Chemometrics, 2014, 28, 192-201.	1.3	12
123	A Fully Automated Robot for the Preparation of Fungal Samples for FTIR Spectroscopy Using Deep Learning. IEEE Access, 2019, 7, 132763-132774.	4.2	12
124	Correcting replicate variation in spectroscopic data by machine learning and model-based pre-processing. Chemometrics and Intelligent Laboratory Systems, 2021, 215, 104350.	3.5	12
125	Observation of Mie ripples in the synchrotron Fourier transform infrared spectra of spheroidal pollen grains. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2018, 35, 1769.	1.5	12
126	Signature of periodic lateral-ray orbits in a rectangular ray-splitting billiard. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 247, 87-92.	2.1	11

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127	Degrees of freedom estimation in Principal Component Analysis and Consensus Principal Component Analysis. Chemometrics and Intelligent Laboratory Systems, 2012, 118, 246-259.	3.5	11
128	The relationship between fatty acid profiles in milk identified by Fourier transform infrared spectroscopy and onset of luteal activity in Norwegian dairy cattle. Journal of Dairy Science, 2015, 98, 5374-5384.	3.4	11
129	The effect of deformation of absorbing scatterers on Mie-type signatures in infrared microspectroscopy. Scientific Reports, 2021, 11, 4675.	3.3	11
130	The PBMC transcriptome profile after intake of oxidized versus high-quality fish oil: an explorative study in healthy subjects. Genes and Nutrition, 2016, 11, 16.	2.5	10
131	Infrared Fiber-Optic Spectroscopy Detects Bovine Articular Cartilage Degeneration. Cartilage, 2021, 13, 285S-294S.	2.7	10
132	Mathematics and Measurements for High-throughput Quantitative Biology. Biological Theory, 2009, 4, 29-43.	1.5	9
133	Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) shows adaptation of grass pollen composition. Scientific Reports, 2018, 8, 16591.	3.3	9
134	A Laboratory-Built Fully Automated Ultrasonication Robot for Filamentous Fungi Homogenization. SLAS Technology, 2019, 24, 583-595.	1.9	9
135	Animal Fat as a Substrate for Production of n-6 Fatty Acids by Fungal Solid-State Fermentation. Microorganisms, 2021, 9, 170.	3.6	9
136	Starch Rich Chlorella vulgaris: High-Throughput Screening and Up-Scale for Tailored Biomass Production. Applied Sciences (Switzerland), 2021, 11, 9025.	2.5	9
137	Preprocessing Strategies for Sparse Infrared Spectroscopy: A Case Study on Cartilage Diagnostics. Molecules, 2022, 27, 873.	3.8	9
138	FTIR microspectroscopy of stained cells and tissues. Application in cancer diagnosis. Spectroscopy, 2010, 24, 73-78.	0.8	8
139	A Modular Liquid Sample Handling Robot for High-Throughput Fourier Transform Infrared Spectroscopy. Mechanisms and Machine Science, 2016, , 769-778.	0.5	8
140	Grayscale representation of infrared microscopy images by extended multiplicative signal correction for registration with histological images. Journal of Biophotonics, 2020, 13, e201960223.	2.3	8
141	Interpreting Several Types of Measurements in Bioscience. , 0, , 333-356.		7
142	Test of semiclassical amplitudes for quantum ray-splitting systems. Physical Review E, 1999, 59, 7228-7230.	2.1	7
143	Whole Grain Consumption Increases Gastrointestinal Content of Sulfate-Conjugated Oxylipins in Pigs â^' A Multicompartmental Metabolomics Study. Journal of Proteome Research, 2015, 14, 3095-3110.	3.7	7
144	Exact ray theory for the calculation of the optical generation rate in optically thin solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 105, 125-138.	2.7	7

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145	A robust metabolomics approach for the evaluation of human embryos fromin vitrofertilization. Analyst, The, 2021, 146, 6156-6169.	3.5	7
146	PLS-Based Multivariate Metamodeling of Dynamic Systems. Springer Proceedings in Mathematics and Statistics, 2013, , 3-30.	0.2	7
147	Temperature- and Nutrients-Induced Phenotypic Changes of Antarctic Green Snow Bacteria Probed by High-Throughput FTIR Spectroscopy. Biology, 2022, 11, 890.	2.8	7
148	Strahlenspaltung und Quantenchaos. Physik Journal, 1996, 52, 1243-1245.	0.1	6
149	Chaotic scattering through potentials with rainbow singularities. Physical Review E, 1996, 54, 6214-6225.	2.1	6
150	Image analysis of particle dispersions in microscopy images of cryoâ€sectioned sausages. Scanning, 2001, 23, 165-174.	1.5	6
151	FTIR Imaging for Structural Analysis of Frankfurter Sausages Subjected to Salt Reduction and Salt Substitution. Journal of Agricultural and Food Chemistry, 2013, 61, 3219-3228.	5.2	6
152	Extracting pure absorbance spectra in infrared microspectroscopy by modeling absorption bands as Fano resonances. Journal of Chemical Physics, 2019, 150, 154124.	3.0	6
153	The Use of Constituent Spectra and Weighting in Extended Multiplicative Signal Correction in Infrared Spectroscopy. Molecules, 2022, 27, 1900.	3.8	6
154	Prediction of oxygen transmission rate for thermoformed trays. Packaging Technology and Science, 2004, 17, 321-332.	2.8	5
155	Spectral Pathology: general discussion. Faraday Discussions, 2016, 187, 155-186.	3.2	5
156	Chaos: A new mechanism for enhancing the optical generation rate in optically thin solar cells. Chaos, 2019, 29, 093132.	2.5	5
157	Model-Based Pre-Processing in Vibrational Spectroscopy. , 2020, , 83-100.		5
158	Genetic variants associated with two major bovine milk fatty acids offer opportunities to breed for altered milk fat composition. Genetics Selection Evolution, 2022, 54, .	3.0	5
159	Single cell analysis/data handling: general discussion. Faraday Discussions, 2016, 187, 299-327.	3.2	4
160	Multi-group PLS Regression: Application to Epidemiology. Springer Proceedings in Mathematics and Statistics, 2013, , 243-255.	0.2	4
161	Fourier transform infrared spectroscopy of milk samples as a tool to estimate energy balance, energy- and dry matter intake in lactating dairy cows. Journal of Dairy Research, 2020, 87, 436-443.	1.4	4
162	Submerged Fermentation of Animal Fat By-Products by Oleaginous Filamentous Fungi for the Production of Unsaturated Single Cell Oil. Fermentation, 2021, 7, 300.	3.0	4

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163	Physiological and Structural Differences Between Enterococcus faecalis JH2-2 and Mutant Strains Resistant to (P)-Divercin RV41. Probiotics and Antimicrobial Proteins, 2010, 2, 226-232.	3.9	3
164	The use of spectroscopic measurements from full scale industrial production to achieve stable end product quality. LWT - Food Science and Technology, 2011, 44, 2266-2272.	5.2	3
165	Highâ€throughput FTIR spectroscopy of intact HepG2 cells reveals additive and nonâ€additive effects of individual fatty acids when given as mixtures. Journal of Biophotonics, 2013, 6, 446-456.	2.3	3
166	Exploring Dry-Film FTIR Spectroscopy to Characterize Milk Composition and Subclinical Ketosis throughout a Cowâ€™s Lactation. Foods, 2021, 10, 2033.	4.3	3
167	An automated approach for fringe frequency estimation and removal in infrared spectroscopy and hyperspectral imaging of biological samples. Journal of Biophotonics, 2021, 14, e202100148.	2.3	3
168	Small leucine-rich proteoglycans in the vertebrae of Atlantic salmon Salmo salar. Diseases of Aquatic Organisms, 2013, 106, 57-68.	1.0	3
169	Identification of fat, protein matrix, and water/starch on microscopy images of sausages by a principal component analysisâ€based segmentation scheme. Scanning, 2003, 25, 109-115.	1.5	2
170	Analysis of Megavariate Data in Functional Omics. , 2020, , 515-567.		2
171	Does chaotic scattering affect the extinction efficiency in quasi-spherical scatterers?. , 2020, , .		2
172	Infrared spectroscopy is suitable for objective assessment of articular cartilage health. Osteoarthritis and Cartilage Open, 2022, 4, 100250.	2.0	2
173	An exact ray model for oblique incident light on planar films. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 126, 114374.	2.7	1
174	Investigation of resonance structures in optically thin solar cells. Journal of Photonics for Energy, 2021, 11, .	1.3	1
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