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List of Publications by Year
in descending order

125 papers	2,904 citations	147801 31 h-index	223800 46 g-index
125 all docs	125 docs citations	125 times ranked	2386 citing authors

#	Article	IF	Citations
1	Non-linear regression methods in NIRS quantitative analysis. Talanta, 2007, 72, 28-42.	5.5	112
2	Detection of melamine in milk powders based on NIR hyperspectral imaging and spectral similarity analyses. Journal of Food Engineering, 2014, 124, 97-104.	5.2	108
3	Non-destructive characterization and quality control of intact strawberries based on NIR spectral data. Journal of Food Engineering, 2012, 110, 102-108.	5.2	93
4	Near-infrared reflectance spectroscopy (NIRS) for the mandatory labelling of compound feedingstuffs: chemical composition and open-declaration. Animal Feed Science and Technology, 2004, 116, 333-349.	2.2	87
5	Feasibility in NIRS instruments for predicting internal quality in intact tomato. Journal of Food Engineering, 2009, 91, 311-318.	5.2	80
6	Miniature handheld NIR sensor for the on-site non-destructive assessment of post-harvest quality and refrigerated storage behavior in plums. Journal of Food Engineering, 2010, 99, 294-302.	5.2	77
7	Grading and color evolution of apples using RGB and hyperspectral imaging vision cameras. Journal of Food Engineering, 2012, 113, 281-288.	5.2	74
8	First steps towards the development of a non-destructive technique for the quality control of wine grapes during on-vine ripening and on arrival at the winery. Journal of Food Engineering, 2010, 101, 158-165.	5.2	63
9	Non-destructive determination of quality parameters in nectarines during on-tree ripening and postharvest storage. Postharvest Biology and Technology, 2009, 52, 180-188.	6.0	61
10	Handheld NIRS analysis for routine meat quality control: Database transfer from at-line instruments. Chemometrics and Intelligent Laboratory Systems, 2012, 114, 30-35.	3.5	61
11	A feasibility study on the use of near-infrared spectroscopy for prediction of the fatty acid profile in live Iberian pigs and carcasses. Meat Science, 2009, 83, 627-633.	5.5	59
12	Matching portable NIRS instruments for in situ monitoring indicators of milk composition. Food Control, 2017, 76, 74-81.	5.5	53
13	A Low-Cost IoT-Based System to Monitor the Location of a Whole Herd. Sensors, 2019, 19, 2298.	3.8	52
14	Instantaneous quantitative and qualitative assessment of pear quality using near infrared spectroscopy. Computers and Electronics in Agriculture, 2009, 69, 24-32.	7.7	51
15	Testing of a local approach for the prediction of quality parameters in intact nectarines using a portable NIRS instrument. Postharvest Biology and Technology, 2011, 60, 130-135.	6.0	51
16	In-situ Iberian pig carcass classification using a micro-electro-mechanical system (MEMS)-based near infrared (NIR) spectrometer. Meat Science, 2012, 90, 636-642.	5.5	50
17	Measurement of pesticide residues in peppers by nearâ€infrared reflectance spectroscopy. Pest Management Science, 2010, 66, 580-586.	3.4	49
18	Implementation of LOCAL Algorithm with Near-Infrared Spectroscopy for Compliance Assurance in Compound Feedingstuffs. Applied Spectroscopy, 2005, 59, 69-77.	2.2	46

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19	Nondestructive Determination of Total Soluble Solid Content and Firmness in Plums Using Near-Infrared Reflectance Spectroscopy. Journal of Agricultural and Food Chemistry, 2008, 56, 2565-2570.	5.2	46
20	Prediction of Total Soluble Solid Content in Intact and Cut Melons and Watermelons Using near Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2008, 16, 91-98.	1.5	45
21	Double integrating sphere measurements for estimating optical properties of pig subcutaneous adipose tissue. Innovative Food Science and Emerging Technologies, 2013, 19, 218-226.	5.6	44
22	Discrimination of Fish Bones from other Animal Bones in the Sedimented Fraction of Compound Feeds by near Infrared Microscopy. Journal of Near Infrared Spectroscopy, 2007, 15, 81-88.	1.5	43
23	Evaluating NIR instruments for quantitative and qualitative assessment of intact apple quality. Journal of the Science of Food and Agriculture, 2009, 89, 781-790.	3.5	43
24	Optimization of NIR Spectral Data Management for Quality Control of Grape Bunches during On-Vine Ripening. Sensors, 2011, 11, 6109-6124.	3.8	43
25	Internal and external quality assessment of mandarins on-tree and at harvest using a portable NIR spectrophotometer. Computers and Electronics in Agriculture, 2013, 92, 66-74.	7.7	42
26	On-Vine Monitoring of Grape Ripening Using Near-Infrared Spectroscopy. Food Analytical Methods, 2012, 5, 1377-1385.	2.6	41
27	Direct prediction of bioethanol yield in sugar beet pulp using Near Infrared Spectroscopy. Bioresource Technology, 2011, 102, 9542-9549.	9.6	39
28	Application of near-infrared microscopy (NIRM) for the detection of meat and bone meals in animal feeds: A tool for food and feed safety. Food Chemistry, 2007, 105, 1164-1170.	8.2	38
29	Prediction of fatty acids content in pig adipose tissue by near infrared spectroscopy: At-line versus in-situ analysis. Meat Science, 2013, 95, 503-511.	5.5	36
30	Developing universal models for the prediction of physical quality in citrus fruits analysed on-tree using portable NIRS sensors. Biosystems Engineering, 2017, 153, 140-148.	4.3	35
31	Use of Artificial Neural Networks in Near-Infrared Reflectance Spectroscopy Calibrations for Predicting the Inclusion Percentages of Wheat and Sunflower Meal in Compound Feedingstuffs. Applied Spectroscopy, 2006, 60, 1062-1069.	2.2	34
32	Application of NIRS for Nondestructive Measurement of Quality Parameters in Intact Oranges During On-Tree Ripening and at Harvest. Food Analytical Methods, 2013, 6, 826-837.	2.6	34
33	Authentication of Organic Feed by Near-Infrared Spectroscopy Combined with Chemometrics: A Feasibility Study. Journal of Agricultural and Food Chemistry, 2012, 60, 8129-8133.	5.2	33
34	Recent Advances in Portable and Handheld NIR Spectrometers and Applications in Milk, Cheese and Dairy Powders. Foods, 2021, 10, 2377.	4.3	32
35	Monitoring NIRS calibrations for use in routine meat analysis as part of Iberian pig-breeding programs. Food Chemistry, 2011, 129, 1889-1897.	8.2	31
36	Monitoring texture and other quality parameters in spinach plants using NIR spectroscopy. Computers and Electronics in Agriculture, 2018, 155, 446-452.	7.7	31

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37	Evaluation of Pretreatment Strategies for Near-Infrared Spectroscopy Calibration Development of Unground and Ground Compound Feedingstuffs. Applied Spectroscopy, 2006, 60, 17-23.	2.2	30
38	Use of near-infrared reflectance spectroscopy for shelf-life discrimination of green asparagus stored in a cool room under controlled atmosphere. Talanta, 2009, 78, 530-536.	5.5	29
39	Authentication of Green Asparagus Varieties by Near-Infrared Reflectance Spectroscopy. Journal of Food Science, 2001, 66, 323-327.	3.1	28
40	Fast and accurate quality assessment of Raf tomatoes using NIRS technology. Postharvest Biology and Technology, 2015, 107, 9-15.	6.0	28
41	Chemometric utilities to achieve robustness in liquid NIRS calibrations: Application to pig fat analysis. Chemometrics and Intelligent Laboratory Systems, 2007, 87, 241-246.	3.5	27
42	Optical properties of pig skin epidermis and dermis estimated with double integrating spheres measurements. Innovative Food Science and Emerging Technologies, 2013, 20, 343-349.	5.6	27
43	Pre-harvest screening on-vine of spinach quality and safety using NIRS technology. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 207, 242-250.	3.9	27
44	Taking NIR Calibrations of Feed Compounds from the Laboratory to the Process: Calibration Transfer between Predispersive and Postdispersive Instruments. Journal of Agricultural and Food Chemistry, 2008, 56, 10135-10141.	5.2	26
45	Quantification and spatial characterization of moisture and NaCl content of Iberian dry-cured ham slices using NIR hyperspectral imaging. Journal of Food Engineering, 2015, 153, 117-123.	5.2	26
46	Fast, Low-Cost and Non-Destructive Physico-Chemical Analysis of Virgin Olive Oils Using Near-Infrared Reflectance Spectroscopy. Sensors, 2017, 17, 2642.	3.8	26
47	Irrigation decision support based on leaf relative water content determination in olive grove using near infrared spectroscopy. Biosystems Engineering, 2019, 180, 50-58.	4.3	26
48	NIRS technology for fast authentication of green asparagus grown under organic and conventional production systems. Postharvest Biology and Technology, 2013, 85, 116-123.	6.0	25
49	Postharvest shelf-life discrimination of nectarines produced under different irrigation strategies using NIR-spectroscopy. LWT - Food Science and Technology, 2011, 44, 1405-1414.	5.2	22
50	Visible to SWIR hyperspectral imaging for produce safety and quality evaluation. Sensing and Instrumentation for Food Quality and Safety, 2011, 5, 155-164.	1.5	22
51	Near-Infrared Reflectance Spectroscopy for Predicting Amino Acids Content in Intact Processed Animal Proteins. Journal of Agricultural and Food Chemistry, 2006, 54, 7703-7709.	5.2	20
52	Optimization of Discriminant Partial Least Squares Regression Models for the Detection of Animal By-Product Meals in Compound Feedingstuffs by Near-Infrared Spectroscopy. Applied Spectroscopy, 2006, 60, 1432-1437.	2.2	20
53	Near Infrared Analysis as a First-Line Screening Technique for Identifying Animal Species in Rendered Animal by-Product Meals. Journal of Near Infrared Spectroscopy, 2007, 15, 237-245.	1.5	19
54	A methodology based on NIR-microscopy for the detection of animal protein by-products. Talanta, 2009, 80, 48-53.	5.5	19

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55	Evaluation of a new local modelling approach for large and heterogeneous NIRS data sets. Chemometrics and Intelligent Laboratory Systems, 2010, 101, 87-94.	3.5	19
56	Advanced Nonlinear Approaches for Predicting the Ingredient Composition in Compound Feedingstuffs by Near-Infrared Reflection Spectroscopy. Applied Spectroscopy, 2008, 62, 536-541.	2.2	18
57	Quantitative assessment of intact green asparagus quality by near infrared spectroscopy. Postharvest Biology and Technology, 2009, 52, 300-306.	6.0	18
58	Using spectral and textural data extracted from hyperspectral near infrared spectroscopy imaging to discriminate between processed pork, poultry and fish proteins. Chemometrics and Intelligent Laboratory Systems, 2018, 172, 90-99.	3.5	18
59	Monitoring quality and safety assessment of summer squashes along the food supply chain using near infrared sensors. Postharvest Biology and Technology, 2019, 154, 21-30.	6.0	17
60	LOCAL regression applied to a citrus multispecies library to assess chemical quality parameters using near infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 217, 206-214.	3.9	17
61	Understanding near infrared radiation propagation in pig skin reflectance measurements. Innovative Food Science and Emerging Technologies, 2014, 22, 137-146.	5.6	16
62	Long-Length Fiber Optic Near-Infrared (NIR) Spectroscopy Probes for On-Line Quality Control of Processed Land Animal Proteins. Applied Spectroscopy, 2018, 72, 1170-1182.	2.2	15
63	Rapid, simultaneous, and in situ authentication and quality assessment of intact bell peppers using nearâ€infrared spectroscopy technology. Journal of the Science of Food and Agriculture, 2019, 99, 1613-1622.	3.5	15
64	Simultaneous detection of quality and safety in spinach plants using a new generation of NIRS sensors. Postharvest Biology and Technology, 2020, 160, 111026.	6.0	15
65	Inverse, Classical, Empirical and Non-Parametric Calibrations in a Bayesian Framework. Journal of Near Infrared Spectroscopy, 2010, 18, 27-38.	1.5	14
66	Pixel Selection for Near-Infrared Chemical Imaging (NIR-CI) Discrimination Between Fish and Terrestrial Animal Species in Animal Protein By-Product Meals. Applied Spectroscopy, 2011, 65, 771-781.	2.2	14
67	First steps to predicting pulp colour in whole melons using near-infrared reflectance spectroscopy. Biosystems Engineering, 2014, 123, 12-18.	4.3	14
68	Optimizing spatial data reduction in hyperspectral imaging for the prediction of quality parameters in intact oranges. Postharvest Biology and Technology, 2021, 176, 111504.	6.0	14
69	Improving NIRS predictions of ingredient composition in compound feedingstuffs using Bayesian non-parametric calibrations. Chemometrics and Intelligent Laboratory Systems, 2012, 110, 108-112.	3.5	13
70	Probabilistic classification models for the in situ authentication of iberian pig carcasses using near infrared spectroscopy. Talanta, 2021, 222, 121511.	5.5	13
71	Near Infrared Spectroscopy for Control of the Compound-Feed Manufacturing Process: Mixing Stage. Journal of Near Infrared Spectroscopy, 2008, 16, 285-290.	1.5	12
72	Robustness in pig fat NIRS calibrations by orthogonal projection. Chemometrics and Intelligent Laboratory Systems, 2010, 100, 36-40.	3.5	12

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73	Use of NIRS technology for on-vine measurement of nitrate content and other internal quality parameters in intact summer squash for baby food production. Postharvest Biology and Technology, 2017, 125, 122-128.	6.0	12
74	Short Communication: The potential of portable near infrared spectroscopy for assuring quality and authenticity in the food chain, using Iberian hams as an example. Animal, 2019, 13, 3018-3021.	3.3	12
75	Fourier transform near-infrared spectroscopy coupled to a long fibre optic head for the quality control of IBERIAN pork loins: Intact versus minced. Meat Science, 2019, 153, 86-93.	5.5	12
76	A system using in situ NIRS sensors for the detection of product failing to meet quality standards and the prediction of optimal postharvest shelf-life in the case of oranges kept in cold storage. Postharvest Biology and Technology, 2019, 147, 48-53.	6.0	11
77	Fraud Detection in Batches of Sweet Almonds by Portable Near-Infrared Spectral Devices. Foods, 2021, 10, 1221.	4.3	11
78	Reducing NIR prediction errors with nonlinear methods and large populations of intact compound feedstuffs. Measurement Science and Technology, 2008, 19, 085601.	2.6	10
79	Near Infrared Spectroscopy Calibrations for Quantifying the Animal Species in Processed Animal Proteins. Journal of Near Infrared Spectroscopy, 2009, 17, 109-118.	1.5	10
80	On-Site Quality Control of Processed Land Animal Proteins Using a Portable Micro-Electro-Mechanical-Systems near Infrared Spectrometer. Journal of Near Infrared Spectroscopy, 2016, 24, 47-58.	1.5	10
81	Identifying animal species in NIR hyperspectral images of processed animal proteins (PAPs): Comparison of multivariate techniques. Chemometrics and Intelligent Laboratory Systems, 2018, 172, 139-149.	3.5	10
82	Estimation of the sensory properties of black tea samples using non-destructive near-infrared spectroscopy sensors. Food Control, 2022, 142, 109260.	5.5	10
83	Exploring the potential of NIRS technology for the in situ prediction of amygdalin content and classification by bitterness of in-shell and shelled intact almonds. Journal of Food Engineering, 2021, 294, 110406.	5.2	9
84	Mapping of fatty acids composition in shelled almonds analysed in bulk using a Hyperspectral Imaging system. LWT - Food Science and Technology, 2021, 138, 110678.	5.2	9
85	Fourier Transform Near-Infrared Spectroscopy to Predict the Gross Energy Content of Food Grade Legumes. Food Analytical Methods, 2013, 6, 1205-1211.	2.6	8
86	Evolution of Frying Oil Quality Using Fourier Transform Near-Infrared (FT-NIR) Spectroscopy. Applied Spectroscopy, 2018, 72, 1001-1013.	2.2	8
87	An innovative non-targeted control system based on NIR spectral information for detecting non-compliant batches of sweet almonds. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 250, 119407.	3.9	8
88	Evaluation of Local Approaches to Obtain Accurate Near-Infrared (NIR) Equations for Prediction of Ingredient Composition of Compound Feeds. Applied Spectroscopy, 2013, 67, 924-929.	2.2	7
89	Setting up a methodology to distinguish between green oranges and leaves using hyperspectral imaging. Computers and Electronics in Agriculture, 2019, 167, 105070.	7.7	7
90	Classifying with confidence using Bayes rule and kernel density estimation. Chemometrics and Intelligent Laboratory Systems, 2019, 189, 81-87.	3.5	7

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91	Integrated soluble solid and nitrate content assessment of spinach plants using portable NIRS sensors along the supply chain. Postharvest Biology and Technology, 2020, 168, 111273.	6.0	7
92	Routine NIRS analysis methodology to predict quality and safety indexes in spinach plants during their growing season in the field. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 246, 118972.	3.9	7
93	Non-destructive determination of fatty acid composition of in-shell and shelled almonds using handheld NIRS sensors. Postharvest Biology and Technology, 2021, 174, 111459.	6.0	7
94	Near Infrared Spectroscopy for Quantification of Animal-Origin Fats in Fat Blends. Journal of Near Infrared Spectroscopy, 2008, 16, 281-283.	1.5	6
95	Detection and Quantification of Ruminant Meal in Processed Animal Proteins: A Comparative Study of near Infrared Spectroscopy and near Infrared Chemical Imaging. Journal of Near Infrared Spectroscopy, 2012, 20, 623-633.	1.5	6
96	Texture Prediction in Intact Green Asparagus by Near Infrared (NIR) Spectroscopy, Assaying Linear and Non-linear Regression Strategies. Food Analytical Methods, 2014, 7, 606-615.	2.6	6
97	Safety and quality issues in summer squashes using handheld portable NIRS sensors for realâ€time decision making and for onâ€vine monitoring. Journal of the Science of Food and Agriculture, 2019, 99, 6768-6777.	3.5	6
98	CaracterizaciÃ³n y tipificaciÃ³n de explotaciones de dehesa asociadas a cooperativas: un caso de estudio en EspaÃ±a. Revista Mexicana De Ciencias Pecuarias, 2018, 9, 812-832.	0.4	6
99	Assessment of watermelon maturity using portable new generation NIR spectrophotometers. Scientia Horticulturae, 2022, 304, 111328.	3.6	6
100	Using Calibrations Developed for Fine Milled Meat and Bone Meal on Spectra Measured on Non-Milled Samples. Journal of Near Infrared Spectroscopy, 2008, 16, 275-279.	1.5	5
101	EXTERNAL VALIDATION AND TRANSFERABILITY OF NIRS MODELS DEVELOPED FOR DETECTING AND QUANTIFYING MBM IN INTACT COMPOUND FEEDING STUFFS. Journal of Food Quality, 2008, 31, 96-107.	2.6	4
102	Near-Infrared Spectroscopy and Geostatistical Analysis for Modeling Spatial Distribution of Analytical Constituents in Bulk Animal By-Product Protein Meals. Applied Spectroscopy, 2017, 71, 520-532.	2.2	3
103	Performance comparison of sampling designs for quality and safety control of raw materials in bulk: A simulation study based on NIR spectral data and geostatistical analysis. Chemometrics and Intelligent Laboratory Systems, 2020, 198, 103940.	3.5	3
104	Transferring a large data library of fresh total mixed rations from a benchtop to 2 portable near-infrared spectrometers for on-farm real-time decisions. Journal of Dairy Science, 2022, , .	3.4	3
105	Building a metadata framework for sharing feed information in Spain1. Journal of Animal Science, 2011, 89, 882-888.	0.5	2
106	Predicting Acorn-Grass Weight Gain Index using non-destructive Near Infrared Spectroscopy in order to classify Iberian pig carcasses according to feeding regime. Grasas Y Aceites, 2013, 64, 210-218.	0.9	2
107	In situ ripening stages monitoring of Lamuyo pepper using a newâ€generation nearâ€infrared spectroscopy sensor. Journal of the Science of Food and Agriculture, 2020, 100, 1931-1939.	3.5	2
108	Chemical Characterization of Wine Vinegars Belonging to the Vinagre de Montilla-Moriles Protected Designation of Origin, Using Near-Infrared Spectroscopy. Food Analytical Methods, 2020, 13, 802-810.	2.6	2

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109	Reduction of the Number of Samples for Cost-Effective Hyperspectral Grape Quality Predictive Models. Foods, 2021, 10, 233.	4.3	2
110	Miniature near infrared spectroscopy spectrometer and information and communication technologies to guarantee the integrity of the EU high added-value "acorn Iberian pig ham" (IP). , 2018, , .		2
111	Validation of two discriminant strategies applied to NIRS data spectra for detection of animal meals in feedstuffs. Spanish Journal of Agricultural Research, 2011, 9, 41.	0.6	2
112	Data pre-processing to improve the mining of large feed databases. Animal, 2013, 7, 1128-1136.	3.3	1
113	Handling of missing data to improve the mining of large feed databases1. Journal of Animal Science, 2013, 91, 491-500.	0.5	1
114	A fiber-optic probe and FT-NIR for onsite quality analysis of olive oils. NIR News, 2018, 29, 4-8.	0.3	1
115	Multistage and adaptive sampling protocols combined with near-infrared spectral sensors for automated monitoring of raw materials in bulk. Biosystems Engineering, 2019, 188, 82-95.	4.3	1
116	New generation NIRS sensors for quality and safety assurance along the food supply chain. , 2020, , .		1
117	Hyperspectral Imaging for the Detection of Bitter Almonds in Sweet Almond Batches. Applied Sciences (Switzerland), 2022, 12, 4842.	2.5	1
118	How Often Do References Need to Be Measured When Using a near Infrared Diode Array Spectrometer. Journal of Near Infrared Spectroscopy, 2010, 18, 79-85.	1.5	0
119	Chemometric analysis for near-infrared spectral detection of beef in fish meal. , 2015, , .		0
120	Analysis of pork and poultry meat and bone meal mixture using hyperspectral imaging. Proceedings of SPIE, 2017, , .	0.8	0
121	SensorFINT, the new European Network for assuring food integrity using non-destructive spectral sensors. Spectroscopy Europe, 0, , 15.	0.0	0
122	Online NIRS analysis for the routine assessment of the nitrate content in spinach plants in the processing industry using linear and non-linear methods. LWT - Food Science and Technology, 2021, 151, 112192.	5.2	0
123	Multivariate predictive models for the prediction of fatty acids in the EU high added-value â€œacorn Iberian pig hamâ€•using a miniature near-infrared spectroscopy instrument. , 2019, , .		0
124	Predicting internal quality parameters of individual pieces of intact oranges using hyperspectral images. , 2020, , .		0
125	First steps to set up a methodology for the citrus yield estimation using a visible/near infrared hyperspectral imaging system. , 2020, , .		0