Shuxiang Fan

List of Publications by Year
in descending order

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59 papers	2,574 citations	186265 28 h-index	197818 49 g-index
59 all docs	59 docs citations	59 times ranked	1451 citing authors

#	Article	IF	Citations
1	Principles, developments and applications of computer vision for external quality inspection of fruits and vegetables: A review. Food Research International, 2014, 62, 326-343.	6.2	332
2	On line detection of defective apples using computer vision system combined with deep learning methods. Journal of Food Engineering, 2020, 286, 110102.	5.2	154
3	Fast detection and visualization of early decay in citrus using Vis-NIR hyperspectral imaging. Computers and Electronics in Agriculture, 2016, 127, 582-592.	7.7	110
4	Effect of spectrum measurement position variation on the robustness of NIR spectroscopy models for soluble solids content of apple. Biosystems Engineering, 2016, 143, 9-19.	4.3	108
5	Long-term evaluation of soluble solids content of apples with biological variability by using near-infrared spectroscopy and calibration transfer method. Postharvest Biology and Technology, 2019, 151, 79-87.	6.0	98
6	Prediction of Soluble Solids Content and Firmness of Pears Using Hyperspectral Reflectance Imaging. Food Analytical Methods, 2015, 8, 1936-1946.	2.6	90
7	Nondestructive measurement of soluble solids content in apple using near infrared hyperspectral imaging coupled with wavelength selection algorithm. Infrared Physics and Technology, 2019, 98, 297-304.	2.9	87
8	Multispectral detection of skin defects of bi-colored peaches based on visâ€“NIR hyperspectral imaging. Postharvest Biology and Technology, 2016, 112, 121-133.	6.0	85
9	Detection of blueberry internal bruising over time using NIR hyperspectral reflectance imaging with optimum wavelengths. Postharvest Biology and Technology, 2017, 134, 55-66.	6.0	80
10	Early detection of decay on apples using hyperspectral reflectance imaging combining both principal component analysis and improved watershed segmentation method. Postharvest Biology and Technology, 2019, 149, 235-246.	6.0	79
11	Recent advances in emerging techniques for non-destructive detection of seed viability: A review. Artificial Intelligence in Agriculture, 2019, 1, 35-47.	6.0	73
12	Prediction of soluble solids content of apple using the combination of spectra and textural features of hyperspectral reflectance imaging data. Postharvest Biology and Technology, 2016, 121, 51-61.	6.0	71
13	Variable Selection in Visible and Near-Infrared Spectral Analysis for Noninvasive Determination of Soluble Solids Content of â€˜Yaâ€™ Pear. Food Analytical Methods, 2014, 7, 1891-1902.	2.6	66
14	Hyperspectral imaging combined with multivariate analysis and band math for detection of common defects on peaches (Prunus persica). Computers and Electronics in Agriculture, 2015, 114, 14-24.	7.7	66
15	Real-time defects detection for apple sorting using NIR cameras with pruning-based YOLOV4 network. Computers and Electronics in Agriculture, 2022, 193, 106715.	7.7	62
16	A bi-layer model for nondestructive prediction of soluble solids content in apple based on reflectance spectra and peel pigments. Food Chemistry, 2018, 239, 1055-1063.	8.2	54
17	Application of Long-Wave Near Infrared Hyperspectral Imaging for Measurement of Soluble Solid Content (SSC) in Pear. Food Analytical Methods, 2016, 9, 3087-3098.	2.6	51
18	Detection of early decay on citrus using hyperspectral transmittance imaging technology coupled with principal component analysis and improved watershed segmentation algorithms. Postharvest Biology and Technology, 2020, 161, 111071.	6.0	45

#	Article	IF	Citations
19	Non-destructive evaluation of soluble solids content of apples using a developed portable Vis/NIR device. Biosystems Engineering, 2020, 193, 138-148.	4.3	45
20	Rapid prediction and visualization of moisture content in single cucumber (Cucumis sativus L.) seed using hyperspectral imaging technology. Infrared Physics and Technology, 2019, 102, 103034.	2.9	44
21	Detection of Early Rottenness on Apples by Using Hyperspectral Imaging Combined with Spectral Analysis and Image Processing. Food Analytical Methods, 2015, 8, 2075-2086.	2.6	42
22	Detection of early decay on citrus using LW-NIR hyperspectral reflectance imaging coupled with two-band ratio and improved watershed segmentation algorithm. Food Chemistry, 2021, 360, 130077.	8.2	42
23	Rapid and visual detection of the main chemical compositions in maize seeds based on Raman hyperspectral imaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 200, 186-194.	3.9	40
24	Application of long-wave near infrared hyperspectral imaging for determination of moisture content of single maize seed. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 254, 119666.	3.9	40
25	Non-destructive discrimination of the variety of sweet maize seeds based on hyperspectral image coupled with wavelength selection algorithm. Infrared Physics and Technology, 2020, 109, 103418.	2.9	37
26	Non-destructive analysis of germination percentage, germination energy and simple vigour index on wheat seeds during storage by Vis/NIR and SWIR hyperspectral imaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 239, 118488.	3.9	37
27	Data Fusion of Two Hyperspectral Imaging Systems with Complementary Spectral Sensing Ranges for Blueberry Bruising Detection. Sensors, 2018, 18, 4463.	3.8	35
28	Comparison and Optimization of Models for Determination of Sugar Content in Pear by Portable Vis-NIR Spectroscopy Coupled with Wavelength Selection Algorithm. Food Analytical Methods, 2019, 12, 12-22.	2.6	35
29	Using Vis/NIR Diffuse Transmittance Spectroscopy and Multivariate Analysis to Predicate Soluble Solids Content of Apple. Food Analytical Methods, 2016, 9, 1333-1343.	2.6	31
30	Effect of spectral measurement orientation on online prediction of soluble solids content of apple using Vis/NIR diffuse reflectance. Infrared Physics and Technology, 2019, 97, 467-477.	2.9	30
31	Optimization and comparison of models for prediction of soluble solids content in apple by online Vis/NIR transmission coupled with diameter correction method. Chemometrics and Intelligent Laboratory Systems, 2020, 201, 104017.	3.5	28
32	Comparison and optimization of models for SSC on-line determination of intact apple using efficient spectrum optimization and variable selection algorithm. Infrared Physics and Technology, 2019, 102, 102979.	2.9	27
33	A multi-region combined model for non-destructive prediction of soluble solids content in apple, based on brightness grade segmentation of hyperspectral imaging. Biosystems Engineering, 2019, 183, 110-120.	4.3	27
34	Online detection of apples with moldy core using the Vis/NIR full-transmittance spectra. Postharvest Biology and Technology, 2020, 168, 111269.	6.0	27
35	Nondestructive evaluation of soluble solids content in tomato with different stage by using Vis/NIR technology and multivariate algorithms. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 248, 119139.	3.9	27
36	Calibration transfer between developed portable Vis/NIR devices for detection of soluble solids contents in apple. Postharvest Biology and Technology, 2022, 183, 111720.	6.0	26

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37	Integration of textural and spectral features of Raman hyperspectral imaging for quantitative determination of a single maize kernel mildew coupled with chemometrics. Food Chemistry, 2022, 372, 131246.	8.2	26
38	Maturity determination of single maize seed by using near-infrared hyperspectral imaging coupled with comparative analysis of multiple classification models. Infrared Physics and Technology, 2021, 112, 103596.	2.9	22
39	Variety classification of coated maize seeds based on Raman hyperspectral imaging. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 270, 120772.	3.9	22
40	Optimization and compensation of models on tomato soluble solids content assessment with online Vis/NIRS diffuse transmission system. Infrared Physics and Technology, 2022, 121, 104050.	2.9	20
41	Multi-factor fusion models for soluble solid content detection in pear (Pyrus bretschneideri â€˜Yaâ€™) using Vis/NIR online half-transmittance technique. Infrared Physics and Technology, 2020, 110, 103443.	2.9	19
42	Quantitative prediction and visual detection of the moisture content of withering leaves in black tea (Camellia sinensis) with hyperspectral image. Infrared Physics and Technology, 2022, 123, 104118.	2.9	18
43	Hyperspectral imaging technology coupled with human sensory information to evaluate the fermentation degree of black tea. Sensors and Actuators B: Chemical, 2022, 366, 131994.	7.8	16
44	Effect of fruit moving speed on online prediction of soluble solids content of apple using Vis/NIR diffuse transmission. Journal of Food Process Engineering, 2018, 41, e12915.	2.9	15
45	Detection of early bruises on apples using hyperspectral imaging combining with <scp>YOLOv3</scp> deep learning algorithm. Journal of Food Process Engineering, 2022, 45, .	2.9	15
46	An optimal zone combination model for on-line nondestructive prediction of soluble solids content of apple based on full-transmittance spectroscopy. Biosystems Engineering, 2020, 197, 64-75.	4.3	14
47	Development of a Hyperspectral Imaging System for the Early Detection of Apple Rottenness Caused by <scp>P</scp>enicillium. Journal of Food Process Engineering, 2015, 38, 499-509.	2.9	11
48	Assessment of multiregion local models for detection of SSC of whole peach (Amygdalus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 T of Food Process Engineering, 2018, 41, e12914.	2.9	10
49	Model robustness in estimation of blueberry SSC using NIRS. Computers and Electronics in Agriculture, 2022, 198, 107073.	7.7	9
50	Prediction and Comparison of Models for Soluble Solids Content Determination in â€˜Yaâ€™ Pears Using Optical Properties and Diffuse Reflectance in 900â€“1700 nm Spectral Region. IEEE Access, 2019, 7, 179199-179211.	4.2	8
51	Online Detection of Watercore Apples by Vis/NIR Full-Transmittance Spectroscopy Coupled with ANOVA Method. Foods, 2021, 10, 2983.	4.3	7
52	Effects of Orientations and Regions on Performance of Online Soluble Solids Content Prediction Models Based on Near-Infrared Spectroscopy for Peaches. Foods, 2022, 11, 1502.	4.3	4
53	Design and Implementation of an Automatic Grading System of Diced Potatoes Based on Machine Vision. IFIP Advances in Information and Communication Technology, 2016, , 202-216.	0.7	2
54	<i>Data fusion of two hyperspectral imaging systems for blueberry bruising detection</i>. , 2017, , .		2

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55	Comparison of Four Types of Raman Spectroscopy for Noninvasive Determination of Carotenoids in Agricultural Products. IFIP Advances in Information and Communication Technology, 2016, , 237-247.	0.7	1
56	<i>Optical properties of healthy and bruised blueberry tissues in the near-infrared spectral region</i>. , 2017, , .		1
57	Penetration Depth of Near-Infrared Light in Small, Thin-Skin Watermelon. IFIP Advances in Information and Communication Technology, 2016, , 194-201.	0.7	1
58	Profile of ABSL Group of NRCIEA and NERCITA, BAAFS, China. NIR News, 2016, 27, 22-24.	0.3	0
59	Quality of Vegetable Products: Assessment of Physical, Chemical, and Microbiological Changes in Vegetable Products by Nondestructive Methods. , 2018, , 113-159.		0