Gang Li

List of Publications by Year
in descending order

128	1,326	393982	552369
papers	citations	19 h-index	26 g-index

129	129	129	771
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dual-mode spectrum of transmission and fluorescence using single ultraviolet LED light source and their application in analyzing total bilirubin in serum. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 264, 120305.	2.0	4
2	Improve the precision of platelet spectrum quantitative analysis based on â€œM+Nâ€•theory. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 264, 120291.	2.0	12
3	Noninvasive detection and analysis of human globulin based on dynamic spectrum. Analytica Chimica Acta, 2022, 1191, 339298.	2.6	8
4	Quantitative analysis of urea in serum by synchronous modulation and demodulation fluorescence spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 268, 120645.	2.0	5
5	Analysis of serum total bilirubin content based on dual-position joint spectrum of â€œM plus Nâ€•theory and the logarithmic method. Analytical and Bioanalytical Chemistry, 2022, 414, 2397-2408.	1.9	3
6	Towards robust reduction of nonlinear errors in dynamic spectrum spectroscopy for effective noninvasive optical detection of blood components. Infrared Physics and Technology, 2022, 121, 104049.	1.3	1
7	Noninvasive blood glucose detection system based on dynamic spectrum and â€œM+Nâ€³ theory. Analytica Chimica Acta, 2022, 1201, 339635.	2.6	8
8	A combined multi-pathlength and wavelength optimization method for accurate detection of platelet count. Infrared Physics and Technology, 2022, , 104174.	1.3	0
9	Method of carrier frequency arrangement for suppressing the adjacent channel interference caused by camera nonlinearity during LED-multispectral imaging. Applied Optics, 2022, 61, 3240.	0.9	0
10	A two-dimensional sample screening method based on data quality and variable correlation. Analytica Chimica Acta, 2022, 1203, 339700.	2.6	4
11	A feasibility study on improving the non-invasive detection accuracy of bottled Shuanghuanglian oral liquid using near infrared spectroscopy. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 274, 121120.	2.0	2
12	Application of multi-wavelength dual-position absorption spectrum to improve the accuracy of leukocyte spectral quantitative analysis based on â€œMÂ+ÂNâ€•theory. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 276, 121199.	2.0	3
13	Heterogeneity classification based on hyperspectral transmission imaging and multivariate data analysis. Infrared Physics and Technology, 2022, , 104180.	1.3	2
14	â€œTwo-dimensional Terraced Compression methodâ€œ and its application in contour detection of transmission image. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 278, 121307.	2.0	3
15	A Single-Channel Amplifier for Simultaneously Monitoring Impedance Respiration Signal and ECG Signal. Circuits, Systems, and Signal Processing, 2021, 40, 559-571.	1.2	5
16	The effect of spectral photoplethysmography amplification and its application in dynamic spectrum for effective noninvasive detection of blood components. Optics and Laser Technology, 2021, 133, 106515.	2.2	7
17	Employment of image oversampling and downsampling techniques for improving grayscale resolution. Optical and Quantum Electronics, 2021, 53, 1.	1.5	1
18	Higher precision integer operations instead of floating-point operations in computers or microprocessors. Review of Scientific Instruments, 2021, 92, 025104.	0.6	0

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19	Cuff-less continuous blood pressure measurement based on multiple types of information fusion. Biomedical Signal Processing and Control, 2021, 68, 102549.	3.5	7
20	New strategy of sample set division in spectroscopy analysisâ€”â€”SWNW. Infrared Physics and Technology, 2021, 117, 103824.	1.3	3
21	A novel method for selecting the set optimal wavelength combination in multi-spectral transmission image. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 261, 120080.	2.0	1
22	An Optimizing Dynamic Spectrum Differential Extraction Method for Noninvasive Blood Component Analysis. Applied Spectroscopy, 2020, 74, 23-33.	1.2	11
23	A review on Mâ€‰+â€‰N theory and its strategies to improve the accuracy of spectrochemical composition analysis of complex liquids. Applied Spectroscopy Reviews, 2020, 55, 87-104.	3.4	32
24	A review on the strategies for reducing the non-linearity caused by scattering on spectrochemical quantitative analysis of complex solutions. Applied Spectroscopy Reviews, 2020, 55, 351-377.	3.4	22
25	Fast demodulation algorithm for multi-wavelength LED frequency-division modulation transmission hyperspectral imaging. Optik, 2020, 202, 163110.	1.4	6
26	Improving the analysis accuracy of components in blood by SSP-MCSD and multi-mode spectral data fusion. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 228, 117778.	2.0	8
27	Detection of heterogeneity on multi-spectral transmission image based on multiple types of pseudo-color maps. Infrared Physics and Technology, 2020, 106, 103285.	1.3	11
28	Recognition of Heterogeneous Edges in Multiwavelength Transmission Images Based on the Weighted Constraint Decision Method. Applied Spectroscopy, 2020, 74, 883-893.	1.2	4
29	Systematic Proportional Method for Improving the Measurement Accuracy of Passive Sensor Measurement System. IEEE Access, 2020, 8, 3980-3986.	2.6	1
30	Improving heterogeneous classification accuracy based on the MDFAT and the combination feature information of multi-spectral transmission images. Infrared Physics and Technology, 2019, 102, 102992.	1.3	7
31	Classification of Heterogeneity on Multi-Spectral Transmission Image Based on Modulation-Demodulation-Frame Accumulation and Pattern Recognition. IEEE Access, 2019, 7, 97732-97744.	2.6	9
32	Repair of osteonecrosis of the femoral head. Der Orthopade, 2019, 48, 213-223.	0.7	7
33	Non-destructive analysis for the in-flexible-containers liquid composition based on WTFE-NPLS method. Infrared Physics and Technology, 2019, 99, 277-283.	1.3	5
34	Improving the quantitative analysis accuracy of bagged liquid components with strong scattering by multi-pathlength data fusion. Infrared Physics and Technology, 2019, 99, 39-44.	1.3	8
35	A Dynamic Spectrum extraction method for extracting blood scattering information â€” Dual-position extraction method. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 221, 116965.	2.0	7
36	Improving the nondestructive analysis accuracy of liquids in a flexible container based on the multi-pathlength spectrum method. Review of Scientific Instruments, 2019, 90, 056101.	0.6	1

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37	Determine the significant digit of spectral data and reduce its redundant digits to eliminate the chance correlation problem based on the â€œsalami slicingâ€•method. Chemometrics and Intelligent Laboratory Systems, 2019, 187, 1-5.	1.8	1
38	Transmission versus reflection spectroscopy for discrimination of human and nonhuman blood. Infrared Physics and Technology, 2019, 99, 1-4.	1.3	5
39	Reduction of the influence of film thickness on diffuse reflectance spectroscopy measurement of the tongue. Review of Scientific Instruments, 2019, 90, 013109.	0.6	0
40	Dual-Mean Extraction Method of Dynamic Spectrum for Suppressing Random Noise and Coarse Error. IEEE Access, 2019, 7, 168681-168687.	2.6	7
41	A Fusion Method in Frequency Domain for Multi-Wavelength Transmission Image. IEEE Access, 2019, 7, 168371-168381.	2.6	3
42	Improving the Model Migration Ability by a Hyperspectral Method With a High Spatial Resolution. IEEE Access, 2019, 7, 171260-171271.	2.6	0
43	Image Enhancement via Indented Frame Over Fusion. IEEE Access, 2019, 7, 181092-181099.	2.6	1
44	Heterogeneity Detection Method for Transmission Multispectral Imaging Based on Contour and Spectral Features. Sensors, 2019, 19, 5369.	2.1	8
45	Dynamic Spectrum for noninvasive blood component analysis and its advances. Applied Spectroscopy Reviews, 2019, 54, 736-757.	3.4	23
46	Dynamic spectrum nonlinear modeling of VIS & NIR band based on RBF neural network for noninvasive blood component analysis to consider the effects of scattering. Infrared Physics and Technology, 2019, 96, 77-83.	1.3	10
47	Optimized lighting method of applying shaped-function signal for increasing the dynamic range of LED-multispectral imaging system. Review of Scientific Instruments, 2018, 89, 025104.	0.6	9
48	Improving the spectral measurement accuracy based on temperature distribution and spectra-temperature relationship. Infrared Physics and Technology, 2018, 90, 87-94.	1.3	4
49	Nondestructive Measurement of Hemoglobin in Blood Bags Based on Multi-Pathlength VIS-NIR Spectroscopy. Scientific Reports, 2018, 8, 2204.	1.6	16
50	Image quality assessment metric for frame accumulated image. Review of Scientific Instruments, 2018, 89, 013703.	0.6	3
51	Modification method to reduce the impact of blood vessel on noncontact discrimination of human blood based on â€œM+Nâ€•theory. Infrared Physics and Technology, 2018, 88, 119-122.	1.3	2
52	Identification of blood species based on diffuse reflectance and transmission joint spectra with machine learning method. Infrared Physics and Technology, 2018, 88, 200-205.	1.3	7
53	Wavelength selection for portable noninvasive blood component measurement system based on spectral difference coefficient and dynamic spectrum. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 193, 40-46.	2.0	21
54	â€œM+Nâ€•theory and UVâ€“Vis-NIR transmission spectroscopy used in quantitative analysis of total bilirubin. Infrared Physics and Technology, 2018, 94, 65-68.	1.3	15

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55	Employment of the appropriate range of sawtooth-shaped-function illumination intensity to improve the image quality. Optik, 2018, 175, 189-196.	1.4	8
56	Non-linearity correction in NIR absorption spectra by grouping modeling according to the content of analyte. Scientific Reports, 2018, 8, 8564.	1.6	12
57	Combined effects of PPG preprocess and dynamic spectrum extraction on predictive performance of non-invasive detection of blood components based on dynamic spectrum. Infrared Physics and Technology, 2018, 92, 436-442.	1.3	9
58	Blood hyperviscosity identification with reflective spectroscopy of tongue tip based on principal component analysis combining artificial neural network. BioMedical Engineering OnLine, 2018, 17, 60.	1.3	2
59	Use of bi-level pulsed frequency-division excitation for improving blood oxygen saturation precision. Measurement: Journal of the International Measurement Confederation, 2018, 129, 523-529.	2.5	8
60	A method to eliminate the influence of incident light variations in spectral analysis. Review of Scientific Instruments, 2018, 89, 063103.	0.6	4
61	Principal frequency component analysis based on modulate chopper technique used in diffuse reflectance spectroscopy measurement. Applied Optics, 2018, 57, 1043.	0.9	6
62	Noncontact discrimination of animal and human blood with vacuum blood vessel and factors affect the discrimination. Infrared Physics and Technology, 2017, 81, 210-214.	1.3	11
63	The relationship between the perfusion index and precision of noninvasive blood component measurement based on dynamic spectroscopy. Analytical Methods, 2017, 9, 2578-2584.	1.3	11
64	New method of extracting information of arterial oxygen saturation based on â˜	? |. Review of Scientific Instruments, 2017, 88, 043107.	0.6	4
65	Noninvasive hemoglobin measurement based on optimizing Dynamic Spectrum method. Spectroscopy Letters, 2017, 50, 164-170.	0.5	16
66	Suppression of inter-device variation for component analysis of turbid liquids based on spatially resolved diffuse reflectance spectroscopy. Review of Scientific Instruments, 2017, 88, 033104.	0.6	6
67	Dynamic spectrum extraction method based on independent component analysis combined dual-tree complex wavelet transform. RSC Advances, 2017, 7, 11198-11205.	1.7	12
68	Effects of 15â€‰Hz square wave magnetic fields on the voltage-gated sodium and potassium channels in prefrontal cortex pyramidal neurons. International Journal of Radiation Biology, 2017, 93, 449-455.	1.0	9
69	The influence of different integration time on stoichiometric analysis in near infrared grating spectrometers. Infrared Physics and Technology, 2017, 86, 130-134.	1.3	8
70	Noninvasive hemoglobin measurement using dynamic spectrum. Review of Scientific Instruments, 2017, 88, 083109.	0.6	28
71	An efficient optimization method to improve the measuring accuracy of oxygen saturation by using triangular wave optical signal. Review of Scientific Instruments, 2017, 88, 093103.	0.6	4
72	Synchronous acquisition of multi-channel signals by single-channel ADC based on square wave modulation. Review of Scientific Instruments, 2017, 88, 085108.	0.6	6

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73	Reduction of package-induced error for the composition analysis of in-package liquid products based on transmission spectrum. RSC Advances, 2017, 7, 26729-26734.	1.7	7
74	An improved device for bioimpedance deviation measurements based on 4-electrode half bridge. Review of Scientific Instruments, 2016, 87, 105107.	0.6	5
75	Pulse wave detection method based on the bio-impedance of the wrist. Review of Scientific Instruments, 2016, 87, 055001.	0.6	10
76	Optimization of a digital lock-in algorithm with a square-wave reference for frequency-divided multi-channel sensor signal detection. Review of Scientific Instruments, 2016, 87, 085102.	0.6	9
77	Calibration set selection method based on the â€œM + Nâ€•theory: application to non-invasive measurement by dynamic spectrum. RSC Advances, 2016, 6, 113322-113326.	1.7	33
78	Quantitative determination based on the differences between spectra-temperature relationships. Talanta, 2016, 155, 47-52.	2.9	22
79	Blood species identification using Near-Infrared diffuse transmitted spectra and PLS-DA method. Infrared Physics and Technology, 2016, 76, 587-591.	1.3	27
80	Optimizing Monte Carlo simulation for detecting the internal information in a fatâ€“muscle media. Optical and Quantum Electronics, 2016, 48, 1.	1.5	1
81	Determination of photon quantity in Monte Carlo simulation. Optical and Quantum Electronics, 2016, 48, 1.	1.5	1
82	Effect on measurement accuracy of transillumination using sawtooth-shaped-function optical signal. Review of Scientific Instruments, 2016, 87, 115106.	0.6	17
83	Study on the effect of spectral difference coefficient on the precision of quantitative spectral analysis. Analytical Methods, 2016, 8, 4648-4658.	1.3	20
84	Multi-pathlength method to improve the spectrometric analysis accuracy based on â€œM + Nâ€•theory. RSC Advances, 2016, 6, 38849-38854.	1.7	35
85	Detection of free hemoglobin in blood products using transmission spectra and fluorescence spectra for quality assurance. Analytical Methods, 2016, 8, 4239-4244.	1.3	17
86	Optimum method of image acquisition using sawtooth-shaped-function optical signal to improve grey-scale resolution. Journal of Modern Optics, 2016, 63, 1539-1543.	0.6	15
87	Optimal wavelength selection for visible diffuse reflectance spectroscopy discriminating human and nonhuman blood species. Analytical Methods, 2016, 8, 381-385.	1.3	12
88	Employment of sawtooth-shaped-function excitation signal and oversampling for improving resistance measurement accuracy. Review of Scientific Instruments, 2016, 87, 105104.	0.6	5
89	Norcantharidin combined with ABT-737 for hepatocellular carcinoma: Therapeutic effects and molecular mechanisms. World Journal of Gastroenterology, 2016, 22, 3962.	1.4	16
90	Calibration of diffuse correlation spectroscopy blood flow index with venous-occlusion diffuse optical spectroscopy in skeletal muscle. Journal of Biomedical Optics, 2015, 20, 125005.	1.4	21

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91	The nonlinear variation regularization algorithm for the magnetic resonance electrical impedance tomography. International Journal of Imaging Systems and Technology, 2015, 25, 68-76.	2.7	2
92	Spectral data quality assessment based on variability analysis: application to noninvasive hemoglobin measurement by dynamic spectrum. Analytical Methods, 2015, 7, 5565-5573.	1.3	21
93	Coding method for the study of the intrinsic mechanism of spectral analysis. Analytical Methods, 2015, 7, 3988-3992.	1.3	0
94	Monte Carlo simulation of photon migration in multi-component media. Optical and Quantum Electronics, 2015, 47, 1919-1931.	1.5	1
95	Evaluation of measurement and stimulation patterns in open electrical impedance tomography with scanning electrode. Medical and Biological Engineering and Computing, 2015, 53, 589-597.	1.6	9
96	Improved method on image detection at low light level using a sinusoidal-shaped-function signal. Journal of Modern Optics, 2015, 62, 1527-1534.	0.6	0
97	Magnetic detection electrical impedance tomography with total variation regularization. Bio-Medical Materials and Engineering, 2014, 24, 2857-2864.	0.4	3
98	The differential Howland current source with high signal to noise ratio for bioimpedance measurement system. Review of Scientific Instruments, 2014, 85, 055111.	0.6	25
99	Double-sampling to improve signal-to-noise ratio (SNR) of dynamic spectrum (DS) in full spectral range. Optical and Quantum Electronics, 2014, 46, 691-698.	1.5	21
100	Discrimination of human and nonhuman blood using visible diffuse reflectance spectroscopy. Analytical Methods, 2014, 6, 9419-9423.	1.3	25
101	Optimization of Measurement Arrangements for Magnetic Detection Electrical Impedance Tomography. IEEE Transactions on Biomedical Engineering, 2014, 61, 444-452.	2.5	8
102	Wavelength selection method based on test analysis of variance: application to oximetry. Analytical Methods, 2014, 6, 1082-1089.	1.3	15
103	Classification of diabetes and measurement of blood glucose concentration noninvasively using near infrared spectroscopy. Infrared Physics and Technology, 2014, 67, 574-582.	1.3	30
104	A Multiple Biomedical Signals Synchronous Acquisition Circuit Based on Over-Sampling and Shaped Signal for the Application of the Ubiquitous Health Care. Circuits, Systems, and Signal Processing, 2014, 33, 3003-3017.	1.2	8
105	Fast digital lock-in amplifier for dynamic spectrum extraction. Journal of Biomedical Optics, 2013, 18, 057003.	1.4	15
106	Influence of water on noninvasive hemoglobin measurement by Dynamic Spectrum. Analytical Methods, 2013, 5, 4660.	1.3	9
107	Digital lock-in algorithm and parameter settings in multi-channel sensor signal detection. Measurement: Journal of the International Measurement Confederation, 2013, 46, 2519-2524.	2.5	18
108	A method to remove odd harmonic interferences in square wave reference digital lock-in amplifier. Review of Scientific Instruments, 2013, 84, 025115.	0.6	19

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109	Optimum method of applying and removing a shaped-function signal for low-light-level image detection. Applied Optics, 2013, 52, 7934.	0.9	18
110	Fill light for grayscale superresolution. Optical Engineering, 2013, 52, 073105.	0.5	2
111	A novel combined regularization algorithm of total variation and Tikhonov regularization for open electrical impedance tomography. Physiological Measurement, 2013, 34, 823-838.	1.2	31
112	Non-invasive measurement of haemoglobin based on dynamic spectrum method. Transactions of the Institute of Measurement and Control, 2013, 35, 16-24.	1.1	15
113	Noninvasive Measurement of Serum Bilirubin Employing Near-Infrared Spectroscopy. Chinese Journal of Analytical Chemistry, 2013, 41, 263.	0.9	1
114	Employment of frame accumulation and shaped function for upgrading low-light-level image detection sensitivity. Optics Letters, 2012, 37, 1361.	1.7	35
115	Composition Analysis of Scattering Liquids Based on Spatially Offset Visible-Near-Infrared Spectroscopy. Applied Spectroscopy, 2012, 66, 1347-1352.	1.2	21
116	A New Electrode Mode for Magnetic Detection Electrical Impedance Tomography: Computer Simulation Study. IEEE Transactions on Magnetics, 2012, 48, 2543-2550.	1.2	6
117	Effects of 50 Hz Magnetic Fields With Different Intensities Exposure on Delayed Rectifier Potassium Channel of Neurons*. Progress in Biochemistry and Biophysics, 2012, 39, 458-463.	0.3	1
118	A novel algorithm combining oversampling and digital lock-in amplifier of high speed and precision. Review of Scientific Instruments, 2011, 82, 095106.	0.6	48
119	Methodological evaluation and comparison of five urinary albumin measurements. Journal of Clinical Laboratory Analysis, 2011, 25, 324-329.	0.9	17
120	Effects of 50 Hz Magnetic Fields With Different Intensities Exposure on Transient Outward Potassium Channel of Cortical Neurons*. Progress in Biochemistry and Biophysics, 2011, 38, 1036-1042.	0.3	1
121	Characteristics of Delayed Rectifier Potassium Channels Exposed to 3 mT Static Magnetic Field. IEEE Transactions on Magnetics, 2010, 46, 2635-2638.	1.2	11
122	Effect of antler extract on corticosteroid-induced avascular necrosis of the femoral head in rats. Journal of Ethnopharmacology, 2010, 127, 124-129.	2.0	30
123	Effect of Deep Brain Stimulationon Neural Activity of Subthalamic Nucleus in Rats*. Progress in Biochemistry and Biophysics, 2009, 36, 1049-1055.	0.3	2
124	Preparation of porous TiO2/Ti composite membrane for immunoisolation. Applied Surface Science, 2008, 255, 2256-2258.	3.1	13
125	Uterine electromyogram topography to represent synchronization of uterine contractions. International Journal of Gynecology and Obstetrics, 2007, 97, 120-124.	1.0	14
126	An in Vivo Acquisition Device for Near Infrared Blood Spectra. , 2007, , .		1

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127	An artificial-intelligence approach to ECG analysis. IEEE Engineering in Medicine and Biology Magazine, 2000, 19, 95-100.	1.1	19
128	<title>Accurate NIRS measurement of muscle oxygenation by correcting the influence of a subcutaneous fat layer</title>. , 1998, , .		21