Euiwon Bae

List of Publications by Year
in descending order

64 papers	1,287 citations	361413 20 h-index	361022 35 g-index
66 all docs	66 docs citations	66 times ranked	994 citing authors

#	Article	IF	Citations
1	Development of a Smartphone-Integrated Reflective Scatterometer for Bacterial Identification. Sensors, 2022, 22, 2646.	3.8	1
2	Optical multi-channel interrogation instrument for bacterial colony characterization. PLoS ONE, 2021, 16, e0247721.	2.5	2
3	Design and Validation of a Portable Machine Learning-Based Electronic Nose. Sensors, 2021, 21, 3923.	3.8	18
4	Development of a smartphone-based lateral-flow imaging system using machine-learning classifiers for detection of Salmonella spp.. Journal of Microbiological Methods, 2021, 188, 106288.	1.6	17
5	Smartphone-based lateral flow imaging system for detection of food-borne bacteria E.coli O157:H7. Journal of Microbiological Methods, 2020, 168, 105800.	1.6	43
6	Detection of E. coli labeled with metal-conjugated antibodies using lateral-flow assay and laser-induced breakdown spectroscopy. Analytical and Bioanalytical Chemistry, 2020, 412, 1291-1301.	3.7	13
7	Design and application of a portable luminometer for bioluminescence detection. Applied Optics, 2020, 59, 801.	1.8	18
8	Generalized spectral light scatter models of diverse bacterial colony morphologies. Journal of Biophotonics, 2019, 12, e201900149.	2.3	6
9	A Portable Spark-Induced Breakdown Spectroscopic (SIBS) Instrument and its Analytical Performance. Applied Spectroscopy, 2019, 73, 698-708.	2.2	2
10	Exploring the Utility of 3-D-printed Laboratory Equipment. Applied Sciences (Switzerland), 2019, 9, 937.	2.5	2
11	Multiplexed detection of lanthanides using laser-induced breakdown spectroscopy: a survey of data analysis techniques. , 2019, , .		2
12	Classification of Arcobacter species using variational autoencoders. , 2019, , .		5
13	Development of Multi-modal bacterial rapid detection instrument. , 2018, , .		0
14	Smartphone-based low light detection for bioluminescence application. Scientific Reports, 2017, 7, 40203.	3.3	65
15	Design of smartphone-based spectrometer to assess fresh meat color. , 2017, , .		2
16	Development of a multispectral lightâ€scatter sensor for bacterial colonies. Journal of Biophotonics, 2017, 10, 634-644.	2.3	14
17	Colorimetric analysis of salivaâ€“alcohol test strips by smartphone-based instruments using machine-learning algorithms. Applied Optics, 2017, 56, 84.	2.1	79
18	Virulence Gene-Associated Mutant Bacterial Colonies Generate Differentiating Two-Dimensional Laser Scatter Fingerprints. Applied and Environmental Microbiology, 2016, 82, 3256-3268.	3.1	17

#	Article	IF	Citations
19	Reflected scatterometry for noninvasive interrogation of bacterial colonies. Journal of Biomedical Optics, 2016, 21, 107004.	2.6	6
20	Current status and future prospects of using advanced computer-based methods to study bacterial colonial morphology. Expert Review of Anti-Infective Therapy, 2016, 14, 207-218.	4.4	6
21	Pico-watt radiant flux detection by smartphone. , 2016, , .		0
22	Smartphone-based colorimetric analysis for detection of saliva alcohol concentration. Applied Optics, 2015, 54, 9183.	2.1	93
23	Label-free, non-invasive light scattering sensor for rapid screening of Bacillus colonies. Journal of Microbiological Methods, 2015, 109, 56-66.	1.6	23
24	Scalar diffraction modeling of multispectral forward scatter patterns from bacterial colonies. Optics Express, 2015, 23, 8545.	3.4	11
25	Light Scattering Sensor for Direct Identification of Colonies of Escherichia coli Serogroups O26, O45, O103, O111, O121, O145 and O157. PLoS ONE, 2014, 9, e105272.	2.5	46
26	Laser-induced speckle scatter patterns in Bacillus colonies. Frontiers in Microbiology, 2014, 5, 537.	3.5	15
27	Laser Optical Sensor, a Label-Free On-Plate Salmonella enterica Colony Detection Tool. MBio, 2014, 5, e01019-13.	4.1	48
28	Nano/Micro and Spectroscopic Approaches to Food Pathogen Detection. Annual Review of Analytical Chemistry, 2014, 7, 65-88.	5.4	42
29	Understanding the multispectral forward scatter patterns by diffraction theory. , 2014, , .		0
30	Experimental verification of multispectral forward scatter phenotyping from bacterial colonies. , 2014, , .		0
31	Development of an integrated optical analyzer for characterization of growth dynamics of bacterial colonies. Journal of Biophotonics, 2013, 6, 929-937.	2.3	13
32	Development of a microbial high-throughput screening instrument based on elastic light scatter patterns. Review of Scientific Instruments, 2012, 83, 044304.	1.3	9
33	Portable bacterial identification system based on elastic light scatter patterns. Journal of Biological Engineering, 2012, 6, 12.	4.7	14
34	Lightâ€scattering sensor for realâ€time identification of <i><scp>V</scp>ibrio parahaemolyticus</i>, <i><scp>V</scp>ibrio vulnificus</i> and <i><scp>V</scp>ibrio cholerae</i> colonies on solid agar plate. Microbial Biotechnology, 2012, 5, 607-620.	4.2	48
35	Effects of Preparation and Storage of Agar Media on the Sensitivity of Bacterial Forward Scattering Patterns. Open Journal of Applied Biosensor, 2012, 01, 26-35.	1.6	3
36	Modeling of Multi-spectral Forward Light Scattering Patterns from Bacterial Colonies. , 2012, , .		0

#	Article	IF	Citations
37	A distributed national network for label-free rapid identification of emerging pathogens. , 2011, , .		1
38	Application of sampling criterion on numerical diffraction from bacterial colonies. Applied Optics, 2011, 50, 2228.	2.1	3
39	Using Scattering to Identify Bacterial Pathogens. Optics and Photonics News, 2011, 22, 20.	0.5	6
40	Characterization of optical properties of bacterial micro-colonies via the comprehensive morphology analyzer. , 2011, , .		0
41	On the sensitivity of forward scattering patterns from bacterial colonies to media composition. Journal of Biophotonics, 2011, 4, 236-243.	2.3	29
42	Labelâ€free identification of bacterial microcolonies via elastic scattering. Biotechnology and Bioengineering, 2011, 108, 637-644.	3.3	29
43	Digital microbiology: detection and classification of unknown bacterial pathogens using a label-free laser light scatter-sensing system. , 2011, , .		0
44	Modeling light propagation through bacterial colonies and its correlation with forward scattering patterns. Journal of Biomedical Optics, 2010, 15, 045001.	2.6	35
45	Morphology Characterization of Bacterial Colonies for Predicting Forward Scattering Patterns. , 2010, , .		0
46	System automation for a bacterial colony detection and identification instrument via forward scattering. Measurement Science and Technology, 2009, 20, 015802.	2.6	23
47	Morphotypic analysis and classification of bacteria and bacterial colonies using laser light-scattering, pattern recognition, and machine-learning system. , 2009, , .		0
48	Label-free detection of multiple bacterial pathogens using light-scattering sensor. Biosensors and Bioelectronics, 2009, 24, 1685-1692.	10.1	134
49	Computational analysis and diagonal preconditioning for the discrete dipole approximation on surface. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 51-61.	2.3	2
50	Prediction of the light scattering patterns from bacteria colonies by a time-resolved reaction-diffusion model and the scalar diffraction theory. , 2009, , .		2
51	Development of a real-time system of monitoring bacterial colony growth and registering the forward-scattering pattern. Proceedings of SPIE, 2009, , .	0.8	1
52	Application of the discrete dipole approximation for dipoles embedded in film. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 1728.	1.5	5
53	Development and optimization of two-dimensional centering algorithm for bacterial rapid detection system using forward scattering. , 2008, , .		0
54	Analysis of time-resolved scattering from macroscale bacterial colonies. Journal of Biomedical Optics, 2008, 13, 014010.	2.6	24

#	Article	IF	Citations
55	Phenotypic analysis of bacterial colonies using laser light scatter and pattern-recognition techniques. , 2008, , .		1
56	Biophysical modeling of forward scattering from bacterial colonies using scalar diffraction theory. Applied Optics, 2007, 46, 3639.	2.1	55
57	Optical forward-scattering for detection of Listeria monocytogenes and other Listeria species. Biosensors and Bioelectronics, 2007, 22, 1664-1671.	10.1	125
58	Extending the applicability of the discrete dipole approximation for multi-scale features on surface. Journal of Quantitative Spectroscopy and Radiative Transfer, 2007, 107, 470-478.	2.3	7
59	Noninvasive forward-scattering system for rapid detection, characterization, and identification of Listeria colonies: image-processing and data analysis. , 2006, , .		2
60	Design methods for six-degree-of-freedom displacement measurement systems using cooperative targets. Precision Engineering, 2002, 26, 99-104.	3.4	29
61	Multi-degree-of-freedom displacement measurement system for milli-structures. Measurement Science and Technology, 2001, 12, 1495-1502.	2.6	22
62	Application of sensitivity analysis for the design of six-degree-of-freedom measurement system. Optical Engineering, 2001, 40, 2837.	1.0	7
63	Multidimensional motion measurement of a bimorph-type piezoelectric actuator using a diffraction grating target. Review of Scientific Instruments, 2001, 72, 3731-3733.	1.3	4
64	Six-degree-of-freedom displacement measurement system using a diffraction grating. Review of Scientific Instruments, 2000, 71, 3214-3219.	1.3	50