Derek Tseng

List of Publications by Year
in descending order

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Version: 2024-02-01

64 papers	4,761 citations	159358 30 h-index	182168 51 g-index
64 all docs	64 docs citations	64 times ranked	4825 citing authors

#	Article	IF	Citations
1	Microplastics retained in stormwater control measures: Where do they come from and where do they go?. Water Research, 2022, 210, 118008.	5.3	29
2	Mobility of polypropylene microplastics in stormwater biofilters under freeze-thaw cycles. Journal of Hazardous Materials Letters, 2022, 3, 100048.	2.0	7
3	Sub-picomolar lateral flow antigen detection with two-wavelength imaging of composite nanoparticles. Biosensors and Bioelectronics, 2022, 207, 114133.	5.3	7
4	Smartphone-enabled rapid quantification of microplastics. Journal of Hazardous Materials Letters, 2022, 3, 100052.	2.0	4
5	Measurement of serum phosphate levels using a mobile sensor. Analyst, The, 2020, 145, 1841-1848.	1.7	13
6	Automated, Cost-Effective Optical System for Accelerated Antimicrobial Susceptibility Testing (AST) Using Deep Learning. ACS Photonics, 2020, 7, 2527-2538.	3.2	10
7	Sensing of electrolytes in urine using a miniaturized paper-based device. Scientific Reports, 2020, 10, 13620.	1.6	40
8	Automated screening of sickle cells using a smartphone-based microscope and deep learning. Npj Digital Medicine, 2020, 3, 76.	5.7	57
9	Holographic detection of nanoparticles using acoustically actuated nanolenses. Nature Communications, 2020, 11, 171.	5.8	26
10	Automated Screening of Sickle Cells Using a Smartphone- Based Microscope and Deep Learning. , 2020, , .		1
11	An Automated and Cost-Effective System for Early Antimicrobial Susceptibility Testing. , 2020, , .		0
12	Early detection ofE. coliand total coliform using an automated, colorimetric and fluorometric fiber optics-based device. Lab on A Chip, 2019, 19, 2925-2935.	3.1	22
13	Computational Image Analysis of Guided Acoustic Waves Enables Rheological Assessment of Sub-nanoliter Volumes. ACS Nano, 2019, 13, 11062-11069.	7.3	5
14	Rapid imaging, detection, and quantification of Nosema ceranae spores in honey bees using mobile phone-based fluorescence microscopy. Lab on A Chip, 2019, 19, 789-797.	3.1	32
15	Paper-based multiplexed vertical flow assay for point-of-care testing. Lab on A Chip, 2019, 19, 1027-1034.	3.1	53
16	Low-cost and portable UV holographic microscope for high-contrast protein crystal imaging. APL Photonics, 2019, 4, 030804.	3.0	11
17	Smartphone-based turbidity reader. Scientific Reports, 2019, 9, 19901.	1.6	12
18	Design and validation of a wide-field mobile phone microscope for the diagnosis of schistosomiasis. Travel Medicine and Infectious Disease, 2019, 30, 128-129.	1.5	6

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19	Deep Learning Enhanced Mobile-Phone Microscopy. ACS Photonics, 2018, 5, 2354-2364.	3.2	142
20	Enzyme-Free Nucleic Acid Amplification Assay Using a Cellphone-Based Well Plate Fluorescence Reader. Analytical Chemistry, 2018, 90, 690-695.	3.2	27
21	Identification of pathogenic bacteria in complex samples using a smartphone based fluorescence microscope. RSC Advances, 2018, 8, 36493-36502.	1.7	48
22	Ferrodrop Dose-Optimized Digital Quantification of Biomolecules in Low-Volume Samples. Analytical Chemistry, 2018, 90, 8881-8888.	3.2	7
23	Targeted DNA sequencing and in situ mutation analysis using mobile phone microscopy. Nature Communications, 2017, 8, 13913.	5.8	118
24	Highly Stable and Sensitive Nucleic Acid Amplification and Cell-Phone-Based Readout. ACS Nano, 2017, 11, 2934-2943.	7.3	101
25	Plasmonics Enhanced Smartphone Fluorescence Microscopy. Scientific Reports, 2017, 7, 2124.	1.6	53
26	A survey of supervised machine learning models for mobile-phone based pathogen identification and classification. , 2017, , .		0
27	Inkjet-printed point-of-care immunoassay on a nanoscale polymer brush enables subpicomolar detection of analytes in blood. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7054-E7062.	3.3	70
28	Evaluation of a Mobile Phone-Based Microscope for Screening of Schistosoma haematobium Infection in Rural Ghana. American Journal of Tropical Medicine and Hygiene, 2017, 96, 1468-1471.	0.6	47
29	Mobile Microscope for Quantitative Fluorescence Sensing Through Highly Autofluorescent and Scattering Media. , 2017, , .		0
30	High-throughput and automated diagnosis of antimicrobial resistance using a cost-effective cellphone-based micro-plate reader. Scientific Reports, 2016, 6, 39203.	1.6	32
31	Quantitative Fluorescence Sensing Through Highly Autofluorescent, Scattering, and Absorbing Media Using Mobile Microscopy. ACS Nano, 2016, 10, 8989-8999.	7.3	9
32	Single DNA imaging and length quantification through a mobile phone microscope. , 2016, , .		0
33	A Smartphone-based Microplate Reader for Point-of-Care ELISA Quantification. , 2016, , .		0
34	Quantification of plant chlorophyll content using Google Glass. Lab on A Chip, 2015, 15, 1708-1716.	3.1	59
35	Cellphone-Based Hand-Held Microplate Reader for Point-of-Care Testing of Enzyme-Linked Immunosorbent Assays. ACS Nano, 2015, 9, 7857-7866.	7.3	300
36	Field portable mobile phone based fluorescence microscopy for detection ofGiardia lambliacysts in water samples. Proceedings of SPIE, 2015, , .	0.8	1

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37	Field quantification of plant chlorophyll content using Google Glass. Proceedings of SPIE, 2015, , .	0.8	0
38	Rapid imaging, detection and quantification of Giardia lamblia cysts using mobile-phone based fluorescent microscopy and machine learning. Lab on A Chip, 2015, 15, 1284-1293.	3.1	165
39	Field-portable Smartphone Microscopy Platform for Wide-field Imaging and Sizing of Single DNA molecules. , 2015, , .		0
40	Imaging and Sizing of Single DNA Molecules on a Mobile Phone. ACS Nano, 2014, 8, 12725-12733.	7.3	155
41	Detection and Spatial Mapping of Mercury Contamination in Water Samples Using a Smart-Phone. ACS Nano, 2014, 8, 1121-1129.	7.3	361
42	Cellphone-based detection platform for rbST biomarker analysis in milk extracts using a microsphere fluorescence immunoassay. Analytical and Bioanalytical Chemistry, 2014, 406, 6857-6866.	1.9	71
43	Single Nanoparticle and Virus Detection Using a Smart Phone Based Fluorescence Microscope. , 2014, , .		0
44	Smart-phone based computational microscopy using multi-frame contact imaging on a fiber-optic array. Lab on A Chip, 2013, 13, 4015.	3.1	103
45	Fluorescent Imaging of Single Nanoparticles and Viruses on a Smart Phone. ACS Nano, 2013, 7, 9147-9155.	7.3	445
46	Cost-effective and rapid blood analysis on a cell-phone. Lab on A Chip, 2013, 13, 1282.	3.1	253
47	High-throughput 3D imaging of sperm. Molecular Reproduction and Development, 2013, 80, 243-243.	1.0	0
48	Lensfree Computational Microscopy Tools for On-Chip Imaging of Biochips. Biological and Medical Physics Series, 2013, , 71-96.	0.3	1
49	Lensfree On-Chip Microscopy and Tomography for Biomedical Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 1059-1072.	1.9	38
50	Compact and Cost-Effective Lensless Telemedicine Microscopy for Global Health Applications. , 2011, , .		1
51	Combined reflection and transmission microscope for telemedicine applications in field settings. Lab on A Chip, 2011, 11, 2738.	3.1	28
52	Cost-effective and compact wide-field fluorescent imaging on a cell-phone. Lab on A Chip, 2011, 11, 315-322.	3.1	294
53	Wide-field fluorescent microscopy on a cell-phone. , 2011, 2011, 6801-4.		17
54	Compact, light-weight and cost-effective microscope based on lensless incoherent holography for telemedicine applications. Lab on A Chip, 2010, 10, 1417.	3.1	420

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55	Multi-angle lensless holography for depth resolved high-throughput imaging of cells on a chip. , 2010, , .		1
56	Lensfree on-chip imaging using nanostructured surfaces. Applied Physics Letters, 2010, 96, 171106.	1.5	22
57	Lensfree microscopy on a cellphone. Lab on A Chip, 2010, 10, 1787.	3.1	448
58	Detection of waterborne parasites using field-portable and cost-effective lensfree microscopy. Lab on A Chip, 2010, 10, 2419.	3.1	130
59	Multi-angle lensless digital holography for depth resolved imaging on a chip. Optics Express, 2010, 18, 9690.	1.7	68
60	Compact and Light-Weight Automated Semen Analysis Platform Using Lensfree on-Chip Microscopy. Analytical Chemistry, 2010, 82, 8307-8312.	3.2	109
61	Lensfree on-chip holography facilitates novel microscopy applications. SPIE Newsroom, 2010, , .	0.1	2
62	Lensfree holographic imaging for on-chip cytometry and diagnostics. Lab on A Chip, 2009, 9, 777-787.	3.1	226
63	Lensless On-chip Imaging of Cells Provides a New Tool for High-throughput Cell-Biology and Medical Diagnostics. Journal of Visualized Experiments, 2009, , .	0.2	18
64	Towards Wireless Health: Lensless On-Chip Cytometry. Optics and Photonics News, 2008, 19, 24.	0.4	36