Aydogan Ozcan

List of Publications by Citations

328 papers	17,344 citations	71 h-index	123 g-index
507 ext. papers	22,332 ext. citations	8 avg, IF	7.31 L-index

#	Paper	IF	Citations
328	Emerging Technologies for Next-Generation Point-of-Care Testing. *Trends in Biotechnology*, **2015**, 33, 692-705	15.1	467
327	All-optical machine learning using diffractive deep neural networks. *Science*, **2018**, 361, 1004-1008	33.3	467
326	Phase recovery and holographic image reconstruction using deep learning in neural networks. *Light: Science and Applications*, **2018**, 7, 17141	16.7	406
325	Lensfree microscopy on a cellphone. *Lab on A Chip*, **2010**, 10, 1787-92	7.2	371
324	Fluorescent imaging of single nanoparticles and viruses on a smart phone. *ACS Nano*, **2013**, 7, 9147-55	16.7	359
323	Deep learning microscopy. *Optica*, **2017**, 4, 1437	8.6	337
322	Compact, light-weight and cost-effective microscope based on lensless incoherent holography for telemedicine applications. *Lab on A Chip*, **2010**, 10, 1417-28	7.2	318
321	Imaging without lenses: achievements and remaining challenges of wide-field on-chip microscopy. *Nature Methods*, **2012**, 9, 889-95	21.6	315
320	Integrated rapid-diagnostic-test reader platform on a cellphone. *Lab on A Chip*, **2012**, 12, 2678-86	7.2	313
319	Detection and spatial mapping of mercury contamination in water samples using a smart-phone. *ACS Nano*, **2014**, 8, 1121-9	16.7	312
318	Optofluidic fluorescent imaging cytometry on a cell phone. *Analytical Chemistry*, **2011**, 83, 6641-7	7.8	310
317	Deep learning enables cross-modality super-resolution in fluorescence microscopy. *Nature Methods* , **2019**, 16, 103-110	21.6	291
316	Lensfree on-chip microscopy over a wide field-of-view using pixel super-resolution. *Optics Express*, **2010**, 18, 11181-91	3.3	265
315	Optical imaging techniques for point-of-care diagnostics. *Lab on A Chip*, **2013**, 13, 51-67	7.2	264
314	On the use of deep learning for computational imaging. *Optica*, **2019**, 6, 921	8.6	261
313	Mobile phones democratize and cultivate next-generation imaging, diagnostics and measurement tools. *Lab on A Chip*, **2014**, 14, 3187-94	7.2	258
312	Cellphone-Based Hand-Held Microplate Reader for Point-of-Care Testing of Enzyme-Linked Immunosorbent Assays. *ACS Nano*, **2015**, 9, 7857-66	16.7	254

311	Cost-effective and compact wide-field fluorescent imaging on a cell-phone. *Lab on A Chip*, **2011**, 11, 315-22	7.2	251
310	Handheld high-throughput plasmonic biosensor using computational on-chip imaging. *Light: Science and Applications*, **2014**, 3, e122-e122	16.7	250
309	High-throughput lensfree 3D tracking of human sperms reveals rare statistics of helical trajectories. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 16018-22	11.5	230
308	Cellphone-based devices for bioanalytical sciences. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 3263-77	4.4	226
307	Cost-effective and rapid blood analysis on a cell-phone. *Lab on A Chip*, **2013**, 13, 1282-8	7.2	217
306	Quantum dot enabled detection of Escherichia coli using a cell-phone. *Analyst, The*, **2012**, 137, 2541-4	5	217
305	A personalized food allergen testing platform on a cellphone. *Lab on A Chip*, **2013**, 13, 636-40	7.2	214
304	Holographic pixel super-resolution in portable lensless on-chip microscopy using a fiber-optic array. *Lab on A Chip*, **2011**, 11, 1276-9	7.2	191
303	Virtual histological staining of unlabelled tissue-autofluorescence images via deep learning. *Nature Biomedical Engineering*, **2019**, 3, 466-477	19	174
302	Speckle reduction in optical coherence tomography images using digital filtering. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2007**, 24, 1901-10	1.8	174
301	Lensfree holographic imaging for on-chip cytometry and diagnostics. *Lab on A Chip*, **2009**, 9, 777-87	7.2	171
300	Cell separation based on size and deformability using microfluidic funnel ratchets. *Lab on A Chip*, **2012**, 12, 2369-76	7.2	166
299	Lensless Imaging and Sensing. *Annual Review of Biomedical Engineering*, **2016**, 18, 77-102	12	161
298	Wide-field computational imaging of pathology slides using lens-free on-chip microscopy. *Science Translational Medicine*, **2014**, 6, 267ra175	17.5	161
297	Extended depth-of-field in holographic imaging using deep-learning-based autofocusing and phase recovery. *Optica*, **2018**, 5, 704	8.6	157
296	Ultra wide-field lens-free monitoring of cells on-chip. *Lab on A Chip*, **2008**, 8, 98-106	7.2	157
295	MICROBIOME. A unified initiative to harness Earth's microbiomes. *Science*, **2015**, 350, 507-8	33.3	155
294	Albumin testing in urine using a smart-phone. *Lab on A Chip*, **2013**, 13, 4231-8	7.2	148

293	Immunochromatographic diagnostic test analysis using Google Glass. *ACS Nano*, **2014**, 8, 3069-79	16.7	144
292	Lens-free optical tomographic microscope with a large imaging volume on a chip. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 7296-301	11.5	140
291	Integrating microfluidics and lensless imaging for point-of-care testing. *Biosensors and Bioelectronics*, **2009**, 24, 3208-14	11.8	139
290	Synthetic aperture-based on-chip microscopy. *Light: Science and Applications*, **2015**, 4, e261-e261	16.7	137
289	Wearable and Implantable Sensors for Biomedical Applications. *Annual Review of Analytical Chemistry*, **2018**, 11, 127-146	12.5	136
288	Imaging and sizing of single DNA molecules on a mobile phone. *ACS Nano*, **2014**, 8, 12725-33	16.7	135
287	Rapid imaging, detection and quantification of Giardia lamblia cysts using mobile-phone based fluorescent microscopy and machine learning. *Lab on A Chip*, **2015**, 15, 1284-93	7.2	128
286	PhaseStain: the digital staining of label-free quantitative phase microscopy images using deep learning. *Light: Science and Applications*, **2019**, 8, 23	16.7	121
285	Inference in artificial intelligence with deep optics and photonics. *Nature*, **2020**, 588, 39-47	50.4	114
284	Maskless imaging of dense samples using pixel super-resolution based multi-height lensfree on-chip microscopy. *Optics Express*, **2012**, 20, 3129-43	3.3	109
283	Lensfree optofluidic plasmonic sensor for real-time and label-free monitoring of molecular binding events over a wide field-of-view. *Scientific Reports*, **2014**, 4, 6789	4.9	107
282	High-throughput lens-free blood analysis on a chip. *Analytical Chemistry*, **2010**, 82, 4621-7	7.8	106
281	Detection of waterborne parasites using field-portable and cost-effective lensfree microscopy. *Lab on A Chip*, **2010**, 10, 2419-23	7.2	105
280	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2016**, 22, 1-14	3.8	104
279	Pixel super-resolution using wavelength scanning. *Light: Science and Applications*, **2016**, 5, e16060	16.7	103
278	Deep Learning Enhanced Mobile-Phone Microscopy. *ACS Photonics*, **2018**, 5, 2354-2364	6.3	101
277	Tools for the Microbiome: Nano and Beyond. *ACS Nano*, **2016**, 10, 6-37	16.7	99
276	Targeted DNA sequencing and in situ mutation analysis using mobile phone microscopy. *Nature Communications*, **2017**, 8, 13913	17.4	97

275	Smartphone-based clinical diagnostics: towards democratization of evidence-based health care. *Journal of Internal Medicine*, **2019**, 285, 19-39	10.8	97
274	Lensless wide-field fluorescent imaging on a chip using compressive decoding of sparse objects. *Optics Express*, **2010**, 18, 10510-23	3.3	97
273	Wide-field optical detection of nanoparticles using on-chip microscopy and self-assembled nanolenses. *Nature Photonics*, **2013**, 7,	33.9	96
272	Increased space-bandwidth product in pixel super-resolved lensfree on-chip microscopy. *Scientific Reports*, **2013**, 3,	4.9	91
271	Holographic opto-fluidic microscopy. *Optics Express*, **2010**, 18, 27499-510	3.3	91
270	Deep learning in holography and coherent imaging. *Light: Science and Applications*, **2019**, 8, 85	16.7	89
269	Compact and light-weight automated semen analysis platform using lensfree on-chip microscopy. *Analytical Chemistry*, **2010**, 82, 8307-12	7.8	88
268	Field-portable wide-field microscopy of dense samples using multi-height pixel super-resolution based lensfree imaging. *Lab on A Chip*, **2012**, 12, 1242-5	7.2	87
267	Three-dimensional virtual refocusing of fluorescence microscopy images using deep learning. *Nature Methods*, **2019**, 16, 1323-1331	21.6	85
266	Smart-phone based computational microscopy using multi-frame contact imaging on a fiber-optic array. *Lab on A Chip*, **2013**, 13, 4015-23	7.2	85
265	Distributed medical image analysis and diagnosis through crowd-sourced games: a malaria case study. *PLoS ONE*, **2012**, 7, e37245	3.7	84
264	Sperm trajectories form chiral ribbons. *Scientific Reports*, **2013**, 3, 1664	4.9	79
263	Field-portable reflection and transmission microscopy based on lensless holography. *Biomedical Optics Express*, **2011**, 2, 2721-30	3.5	78
262	Lensfree holographic imaging of antibody microarrays for high-throughput detection of leukocyte numbers and function. *Analytical Chemistry*, **2010**, 82, 3736-44	7.8	78
261	Edge sparsity criterion for robust holographic autofocusing. *Optics Letters*, **2017**, 42, 3824-3827	3	76
260	Highly Stable and Sensitive Nucleic Acid Amplification and Cell-Phone-Based Readout. *ACS Nano*, **2017**, 11, 2934-2943	16.7	75
259	A deep learning-enabled portable imaging flow cytometer for cost-effective, high-throughput, and label-free analysis of natural water samples. *Light: Science and Applications*, **2018**, 7, 66	16.7	75
258	Air quality monitoring using mobile microscopy and machine learning. *Light: Science and Applications*, **2017**, 6, e17046	16.7	72

257	Lensless digital holographic microscopy and its applications in biomedicine and environmental monitoring. *Methods*, **2018**, 136, 4-16	4.6	71
256	On-chip biomedical imaging. *IEEE Reviews in Biomedical Engineering*, **2013**, 6, 29-46	6.4	70
255	Wide field-of-view lens-free fluorescent imaging on a chip. *Lab on A Chip*, **2010**, 10, 824-7	7.2	68
254	Cell-laden Polymeric Microspheres for Biomedical Applications. *Trends in Biotechnology*, **2015**, 33, 653-666	13.1	64
253	Field-portable pixel super-resolution colour microscope. *PLoS ONE*, **2013**, 8, e76475	3.7	64
252	Field-portable lensfree tomographic microscope. *Lab on A Chip*, **2011**, 11, 2222-30	7.2	63
251	On-chip differential interference contrast microscopy using lensless digital holography. *Optics Express*, **2010**, 18, 4717-26	3.3	63
250	Bright-field holography: cross-modality deep learning enables snapshot 3D imaging with bright-field contrast using a single hologram. *Light: Science and Applications*, **2019**, 8, 25	16.7	62
249	Unconventional methods of imaging: computational microscopy and compact implementations. *Reports on Progress in Physics*, **2016**, 79, 076001	14.4	62
248	Cellphone-based detection platform for rbST biomarker analysis in milk extracts using a microsphere fluorescence immunoassay. *Analytical and Bioanalytical Chemistry*, **2014**, 406, 6857-66	4.4	61
247	High-throughput lensfree imaging and characterization of a heterogeneous cell solution on a chip. *Biotechnology and Bioengineering*, **2009**, 102, 856-868	4.9	60
246	Design of task-specific optical systems using broadband diffractive neural networks. *Light: Science and Applications*, **2019**, 8, 112	16.7	60
245	Lensfree fluorescent on-chip imaging of transgenic Caenorhabditis elegans over an ultra-wide field-of-view. *PLoS ONE*, **2011**, 6, e15955	3.7	58
244	Characterization of natural- and organobentonite by XRD, SEM, FT-IR and thermal analysis techniques and its adsorption behaviour in aqueous solutions. *Clay Minerals*, **2012**, 47, 31-44	1.3	57
243	Roadmap for optofluidics. *Journal of Optics (United Kingdom)*, **2017**, 19, 093003	1.7	55
242	On-chip cytometry using plasmonic nanoparticle enhanced lensfree holography. *Scientific Reports*, **2013**, 3, 1699	4.9	55
241	High-throughput and label-free single nanoparticle sizing based on time-resolved on-chip microscopy. *ACS Nano*, **2015**, 9, 3265-73	16.7	54
240	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	11.5	53

239	Sparsity-based multi-height phase recovery in holographic microscopy. *Scientific Reports*, **2016**, 6, 37862	4.9	53
238	Optofluidic Tomography on a Chip. *Applied Physics Letters*, **2011**, 98, 161109	3.4	52
237	Automated single-cell motility analysis on a chip using lensfree microscopy. *Scientific Reports*, **2014**, 4, 4717	4.9	51
236	Multi-angle lensless digital holography for depth resolved imaging on a chip. *Optics Express*, **2010**, 18, 9690-711	3.3	49
235	Calling Biomarkers in Milk Using a Protein Microarray on Your Smartphone. *PLoS ONE*, **2015**, 10, e0134360	3.7	49
234	Deep-Learning-Based Image Reconstruction and Enhancement in Optical Microscopy. *Proceedings of the IEEE*, **2020**, 108, 30-50	14.3	48
233	Analysis of Diffractive Optical Neural Networks and Their Integration with Electronic Neural Networks. *IEEE Journal of Selected Topics in Quantum Electronics*, **2020**, 26,	3.8	48
232	Computational Sensing Using Low-Cost and Mobile Plasmonic Readers Designed by Machine Learning. *ACS Nano*, **2017**, 11, 2266-2274	16.7	47
231	Rapid, portable and cost-effective yeast cell viability and concentration analysis using lensfree on-chip microscopy and machine learning. *Lab on A Chip*, **2016**, 16, 4350-4358	7.2	47
230	Quantification of plant chlorophyll content using Google Glass. *Lab on A Chip*, **2015**, 15, 1708-16	7.2	46
229	Wide-field computational color imaging using pixel super-resolved on-chip microscopy. *Optics Express*, **2013**, 21, 12469-83	3.3	46
228	Deep learning-based super-resolution in coherent imaging systems. *Scientific Reports*, **2019**, 9, 3926	4.9	45
227	Plasmonics Enhanced Smartphone Fluorescence Microscopy. *Scientific Reports*, **2017**, 7, 2124	4.9	43
226	Grain size effects in polycrystalline gold nanoparticles. *Nanoscale*, **2012**, 4, 4228-33	7.7	43
225	Lensfree super-resolution holographic microscopy using wetting films on a chip. *Optics Express*, **2011**, 19, 17378-89	3.3	42
224	Wide-field lensless fluorescent microscopy using a tapered fiber-optic faceplate on a chip. *Analyst, The*, **2011**, 136, 3512-8	5	42
223	Label-Free Bioaerosol Sensing Using Mobile Microscopy and Deep Learning. *ACS Photonics*, **2018**, 5, 4617-4627	6.5	42
222	High-throughput screening of large volumes of whole blood using structured illumination and fluorescent on-chip imaging. *Lab on A Chip*, **2012**, 12, 4968-71	7.2	41

221	Resolution enhancement in scanning electron microscopy using deep learning. *Scientific Reports*, **2019**, 9, 12050	4.9	40
220	Propagation phasor approach for holographic image reconstruction. *Scientific Reports*, **2016**, 6, 22738	4.9	40
219	Homogeneous Entropy-Driven Amplified Detection of Biomolecular Interactions. *ACS Nano*, **2016**, 10, 7467-75	16.7	40
218	Deep learning-enabled point-of-care sensing using multiplexed paper-based sensors. *Npj Digital Medicine*, **2020**, 3, 66	15.7	38
217	Lens-free imaging for biological applications. *Journal of the Association for Laboratory Automation*, **2012**, 17, 43-9		38
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212	Multi-color LUCAS: Lensfree On-chip Cytometry Using Tunable Monochromatic Illumination and Digital Noise Reduction. *Cellular and Molecular Bioengineering*, **2008**, 1, 146-156	3.9	35
211	Class-specific differential detection in diffractive optical neural networks improves inference accuracy. *Advanced Photonics*, **2019**, 1, 1	8.1	35
210	Label-free 3D computational imaging of spermatozoon locomotion, head spin and flagellum beating over a large volume. *Light: Science and Applications*, **2018**, 7, 17121	16.7	34
209	Tunable vapor-condensed nanolenses. *ACS Nano*, **2014**, 8, 7340-9	16.7	34
208	Crowd-sourced BioGames: managing the big data problem for next-generation lab-on-a-chip platforms. *Lab on A Chip*, **2012**, 12, 4102-6	7.2	34
207	Motility-based label-free detection of parasites in bodily fluids using holographic speckle analysis and deep learning. *Light: Science and Applications*, **2018**, 7, 108	16.7	34
206	Paper-based multiplexed vertical flow assay for point-of-care testing. *Lab on A Chip*, **2019**, 19, 1027-1034	7.2	33
205	Democratization of Nanoscale Imaging and Sensing Tools Using Photonics. *Analytical Chemistry*, **2015**, 87, 6434-45	7.8	33
204	Early detection and classification of live bacteria using time-lapse coherent imaging and deep learning. *Light: Science and Applications*, **2020**, 9, 118	16.7	33

203	Benchmarking Smartphone Fluorescence-Based Microscopy with DNA Origami Nanobeads: Reducing the Gap toward Single-Molecule Sensitivity. *ACS Omega*, **2019**, 4, 637-642	3.9	33
202	Deep Learning Enables High-Throughput Analysis of Particle-Aggregation-Based Biosensors Imaged Using Holography. *ACS Photonics*, **2019**, 6, 294-301	6.3	32
201	Terahertz pulse shaping using diffractive surfaces. *Nature Communications*, **2021**, 12, 37	17.4	32
200	Towards Wireless Health: Lensless On-Chip Cytometry. *Optics and Photonics News*, **2008**, 19, 24	1.9	31
199	Identification of pathogenic bacteria in complex samples using a smartphone based fluorescence microscope.. *RSC Advances*, **2018**, 8, 36493-36502	3.7	31
198	Color calibration and fusion of lens-free and mobile-phone microscopy images for high-resolution and accurate color reproduction. *Scientific Reports*, **2016**, 6, 27811	4.9	30
197	Optoelectronic tweezers integrated with lensfree holographic microscopy for wide-field interactive cell and particle manipulation on a chip. *Lab on A Chip*, **2013**, 13, 2278-84	7.2	30
196	Evaluation of a Mobile Phone-Based Microscope for Screening of Infection in Rural Ghana. *American Journal of Tropical Medicine and Hygiene*, **2017**, 96, 1468-1471	3.2	29
195	Lensfree On-Chip Microscopy and Tomography for Bio-Medical Applications. *IEEE Journal of Selected Topics in Quantum Electronics*, **2011**, 18, 1059-1072	3.8	29
194	Point-of-Care Serodiagnostic Test for Early-Stage Lyme Disease Using a Multiplexed Paper-Based Immunoassay and Machine Learning. *ACS Nano*, **2020**, 14, 229-240	16.7	29
193	Wide-field imaging of birefringent synovial fluid crystals using lens-free polarized microscopy for gout diagnosis. *Scientific Reports*, **2016**, 6, 28793	4.9	29
192	Parasite motility is critical for virulence of African trypanosomes. *Scientific Reports*, **2018**, 8, 9122	4.9	27
191	Roadmap on digital holography [Invited]. *Optics Express*, **2021**, 29, 35078-35118	3.3	27
190	Optical detection and sizing of single nanoparticles using continuous wetting films. *ACS Nano*, **2013**, 7, 7601-9	16.7	26
189	Microscopy without lenses. *Physics Today*, **2017**, 70, 50-56	0.9	26
188	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	7.2	25
187	Computational imaging, sensing and diagnostics for global health applications. *Current Opinion in Biotechnology*, **2014**, 25, 8-16	11.4	25
186	Spectrally encoded single-pixel machine vision using diffractive networks. *Science Advances*, **2021**, 7,	14.3	25

185	High-throughput and automated diagnosis of antimicrobial resistance using a cost-effective cellphone-based micro-plate reader. *Scientific Reports*, **2016**, 6, 39203	4.9	25
184	Addressable nanoantennas with cleared hotspots for single-molecule detection on a portable smartphone microscope. *Nature Communications*, **2021**, 12, 950	17.4	25
183	Digital synthesis of histological stains using micro-structured and multiplexed virtual staining of label-free tissue. *Light: Science and Applications*, **2020**, 9, 78	16.7	24
182	Deep learning-based color holographic microscopy. *Journal of Biophotonics*, **2019**, 12, e201900107	3.1	24
181	Demosaiced pixel super-resolution for multiplexed holographic color imaging. *Scientific Reports*, **2016**, 6, 28601	4.9	23
180	Computational imaging of sperm locomotion. *Biology of Reproduction*, **2017**, 97, 182-188	3.9	23
179	Sensing of electrolytes in urine using a miniaturized paper-based device. *Scientific Reports*, **2020**, 10, 13620	4.9	23
178	Machine learning and computation-enabled intelligent sensor design. *Nature Machine Intelligence*, **2021**, 3, 556-565	22.5	23
177	Lensfree optofluidic microscopy and tomography. *Annals of Biomedical Engineering*, **2012**, 40, 251-62	4.7	22
176	Misalignment resilient diffractive optical networks. *Nanophotonics*, **2020**, 9, 4207-4219	6.3	22
175	Computational out-of-focus imaging increases the space–bandwidth product in lens-based coherent microscopy. *Optica*, **2016**, 3, 1422	8.6	22
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172	Spectral demultiplexing in holographic and fluorescent on-chip microscopy. *Scientific Reports*, **2014**, 4, 3760	4.9	20
171	Automated screening of sickle cells using a smartphone-based microscope and deep learning. *Npj Digital Medicine*, **2020**, 3, 76	15.7	20
170	Wide-field fluorescent microscopy and fluorescent imaging flow cytometry on a cell-phone. *Journal of Visualized Experiments*, **2013**,	1.6	20
169	Lensfree sensing on a microfluidic chip using plasmonic nanoapertures. *Applied Physics Letters*, **2010**, 97, 221107	3.4	20
168	BioGames: A Platform for Crowd-Sourced Biomedical Image Analysis and Telediagnosis. *Games for Health Journal*, **2012**, 1, 373-376	4.2	20

167	Enzyme-Free Nucleic Acid Amplification Assay Using a Cellphone-Based Well Plate Fluorescence Reader. *Analytical Chemistry*, **2018**, 90, 690-695	7.8	20
166	A mathematical framework for combining decisions of multiple experts toward accurate and remote diagnosis of malaria using tele-microscopy. *PLoS ONE*, **2012**, 7, e46192	3.7	19
165	Wide-field pathology imaging using on-chip microscopy. *Virchows Archiv Fur Pathologische Anatomie Und Physiologie Und Fur Klinische Medizin*, **2015**, 467, 3-7	5.1	18
164	Computational Sensing of Staphylococcus aureus on Contact Lenses Using 3D Imaging of Curved Surfaces and Machine Learning. *ACS Nano*, **2018**, 12, 2554-2559	16.7	18
163	3D imaging of optically cleared tissue using a simplified CLARITY method and on-chip microscopy. *Science Advances*, **2017**, 3, e1700553	14.3	18
162	Determination of tetracycline residues in chicken meat by liquid chromatography-tandem mass spectrometry. *Food Additives and Contaminants: Part B Surveillance*, **2012**, 5, 45-9	3.3	18
161	Giga-pixel fluorescent imaging over an ultra-large field-of-view using a flatbed scanner. *Lab on A Chip*, **2013**, 13, 4460-6	7.2	18
160	Minimum-phase-function-based processing in frequency-domain optical coherence tomography systems. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2006**, 23, 1669-77	1.8	18
159	Iterative processing of second-order optical nonlinearity depth profiles. *Optics Express*, **2004**, 12, 3367-76	3.3	18
158	Emerging Advances to Transform Histopathology Using Virtual Staining. *BME Frontiers*, **2020**, 2020, 1-11	4.4	18
157	Ensemble learning of diffractive optical networks. *Light: Science and Applications*, **2021**, 10, 14	16.7	18
156	Nano-imaging enabled via self-assembly. *Nano Today*, **2014**, 9, 560-573	17.9	17
155	Modern Trends in Imaging VIII: Lensfree Computational Microscopy Tools for Cell and Tissue Imaging at the Point-of-Care and in Low-Resource Settings. *Analytical Cellular Pathology*, **2012**, 35, 229-247	3.4	17
154	Differential near-field scanning optical microscopy. *Nano Letters*, **2006**, 6, 2609-16	11.5	17
153	Fractal LAMP: Label-Free Analysis of Fractal Precipitate for Digital Loop-Mediated Isothermal Nucleic Acid Amplification. *ACS Sensors*, **2020**, 5, 385-394	9.2	17
152	Deep Learning-Based Holographic Polarization Microscopy. *ACS Photonics*, **2020**, 7, 3023-3034	6.3	17
151	Single-Shot Autofocusing of Microscopy Images Using Deep Learning. *ACS Photonics*, **2021**, 8, 625-638	6.3	17
150	High-throughput analysis of horse spermsT3D swimming patterns using computational on-chip imaging. *Animal Reproduction Science*, **2016**, 169, 45-55	2.1	16

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148	Contact lens-based lysozyme detection in tear using a mobile sensor. *Lab on A Chip*, **2020**, 20, 1493-1502	7.2	15
147	Wide-field fluorescent microscopy on a cell-phone. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 6801-4	0.9	15
146	Scale-, Shift-, and Rotation-Invariant Diffractive Optical Networks. *ACS Photonics*, **2021**, 8, 324-334	6.3	15
145	Holographic detection of nanoparticles using acoustically actuated nanolenses. *Nature Communications*, **2020**, 11, 171	17.4	14
144	Mobile Technologies for the Discovery, Analysis, and Engineering of the Global Microbiome. *ACS Nano*, **2018**, 12, 3065-3082	16.7	14
143	. *Journal of Lightwave Technology*, **2006**, 24, 1739-1757	4	14
142	High-Throughput Quantification of Nanoparticle Degradation Using Computational Microscopy and Its Application to Drug Delivery Nanocapsules. *ACS Photonics*, **2017**, 4, 1216-1224	6.3	13
141	Computational cytometer based on magnetically modulated coherent imaging and deep learning. *Light: Science and Applications*, **2019**, 8, 91	16.7	13
140	Smartphone-imaged microfluidic biochip for measuring CD64 expression from whole blood. *Analyst, The*, **2019**, 144, 3925-3935	5	13
139	Ti and NiPt/Ti liner silicide contacts for advanced technologies **2016**,		13
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136	Lens-free computational imaging of capillary morphogenesis within three-dimensional substrates. *Journal of Biomedical Optics*, **2012**, 17, 126018	3.5	13
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