Liang Dong

List of Publications by Year
in descending order

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100 papers	3,216 citations	201385 27 h-index	155451 55 g-index
102 all docs	102 docs citations	102 times ranked	4412 citing authors

#	Article	IF	Citations
1	Adaptive liquid microlenses activated by stimuli-responsive hydrogels. Nature, 2006, 442, 551-554.	13.7	975
2	Autonomous microfluidics with stimuli-responsive hydrogels. Soft Matter, 2007, 3, 1223.	1.2	180
3	Microfluidic Immuno-Biochip for Detection of Breast Cancer Biomarkers Using Hierarchical Composite of Porous Graphene and Titanium Dioxide Nanofibers. ACS Applied Materials & Interfaces, 2016, 8, 20570-20582.	4.0	157
4	Microfluidic impedimetric sensor for soil nitrate detection using graphene oxide and conductive nanofibers enabled sensing interface. Sensors and Actuators B: Chemical, 2017, 239, 1289-1299.	4.0	115
5	From Flexible and Stretchable Meta-Atom to Metamaterial: A Wearable Microwave Meta-Skin with Tunable Frequency Selective and Cloaking Effects. Scientific Reports, 2016, 6, 21921.	1.6	88
6	Perspectiveâ€"Electrochemical Sensors for Soil Quality Assessment. Journal of the Electrochemical Society, 2020, 167, 037550.	1.3	80
7	Highâ€Resolution Patterning and Transferring of Grapheneâ€Based Nanomaterials onto Tape toward Rollâ€toâ€Roll Production of Tapeâ€Based Wearable Sensors. Advanced Materials Technologies, 2017, 2, 1700223.	3.0	79
8	Graphene â€œmicrodrumsâ€•on a freestanding perforated thin membrane for high sensitivity MEMS pressure sensors. Nanoscale, 2016, 8, 7663-7671.	2.8	75
9	Plant chip for high-throughput phenotyping of Arabidopsis. Lab on A Chip, 2014, 14, 1281-1293.	3.1	70
10	Continuous Monitoring of Soil Nitrate Using a Miniature Sensor with Poly(3-octyl-thiophene) and Molybdenum Disulfide Nanocomposite. ACS Applied Materials & Interfaces, 2019, 11, 29195-29206.	4.0	66
11	An optofluidic metasurface for lateral flow-through detection of breast cancer biomarker. Biosensors and Bioelectronics, 2018, 107, 224-229.	5.3	64
12	Wearable Graphene Sensors With Microfluidic Liquid Metal Wiring for Structural Health Monitoring and Human Body Motion Sensing. IEEE Sensors Journal, 2016, 16, 7870-7875.	2.4	59
13	In situ integration of graphene foamâ€"titanium nitride based bio-scaffolds and microfluidic structures for soil nutrient sensors. Lab on A Chip, 2017, 17, 274-285.	3.1	57
14	Tunable meta-atom using liquid metal embedded in stretchable polymer. Journal of Applied Physics, 2015, 118, 014504.	1.1	50
15	Fully Conformal Square-Patch Frequency-Selective Surface Toward Wearable Electromagnetic Shielding. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 2602-2605.	2.4	44
16	Optical bound states in slotted high-contrast gratings. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 2472.	0.9	42
17	pH-adaptive microlenses using pinned liquid-liquid interfaces actuated by pH-responsive hydrogel. Applied Physics Letters, 2006, 89, 211120.	1.5	36
18	Rapid Differentiation of Host and Parasitic Exosome Vesicles Using Microfluidic Photonic Crystal Biosensor. ACS Sensors, 2018, 3, 1616-1621.	4.0	36

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19	Fabrication and characterization of integrated uncooled infrared sensor arrays using a-Si thin-film transistors as active elements. Journal of Microelectromechanical Systems, 2005, 14, 1167-1177.	1.7	35
20	Tunable bioelectrodes with wrinkled-ridged graphene oxide surfaces for electrochemical nitrate sensors. RSC Advances, 2016, 6, 67184-67195.	1.7	35
21	A miniature microbial fuel cell with conducting nanofibers-based 3D porous biofilm. Journal of Micromechanics and Microengineering, 2015, 25, 125017.	1.5	34
22	Integrated dual-modality microfluidic sensor for biomarker detection using lithographic plasmonic crystal. Lab on A Chip, 2018, 18, 803-817.	3.1	33
23	Nutrient Sensing Using Chip Scale Electrophoresis and <italic>In Situ</italic> Soil Solution Extraction. IEEE Sensors Journal, 2017, 17, 4330-4339.	2.4	32
24	Nanopatterned Optical Fiber Tip for Guided Mode Resonance and Application to Gas Sensing. IEEE Sensors Journal, 2017, 17, 7262-7272.	2.4	32
25	Zinc Oxide Coated Tin Oxide Nanofibers for Improved Selective Acetone Sensing. Nanomaterials, 2018, 8, 509.	1.9	31
26	Graphene oxideâ€“metal nanocomposites for cancer biomarker detection. RSC Advances, 2017, 7, 35982-35991.	1.7	30
27	Tunable Optical Nanoantennas Incorporating Bowtie Nanoantenna Arrays with Stimuli-Responsive Polymer. Scientific Reports, 2016, 5, 18567.	1.6	29
28	A Fieldâ€Deployable, Wearable Leaf Sensor for Continuous Monitoring of Vaporâ€Pressure Deficit. Advanced Materials Technologies, 2021, 6, 2001246.	3.0	29
29	Tunable and movable liquid microlens in situ fabricated within microfluidic channels. Applied Physics Letters, 2007, 91, .	1.5	28
30	Directivity-Reconfigurable Wideband Two-Arm Spiral Antenna. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 66-69.	2.4	27
31	Integrated Microfluidic Flow-Through Microbial Fuel Cells. Scientific Reports, 2017, 7, 41208.	1.6	26
32	Microblower-based microfluidic pump. Sensors and Actuators A: Physical, 2017, 253, 27-34.	2.0	26
33	Micro-electro-fluidic grids for nematodes: a lens-less, image-sensor-less approach for on-chip tracking of nematode locomotion. Lab on A Chip, 2013, 13, 650-661.	3.1	24
34	Selective Nanofiber Deposition Using a Microfluidic Confinement Approach. Langmuir, 2010, 26, 1539-1543.	1.6	22
35	A microfluidic chemical/biological sensing system based on membrane dissolution and optical absorption. Measurement Science and Technology, 2007, 18, 201-207.	1.4	21
36	Plasmonic Crystal-Based Gas Sensor Toward an Optical Nose Design. IEEE Sensors Journal, 2017, 17, 6210-6223.	2.4	21

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37	Design and fabrication of single-chip a-Si TFT-based uncooled infrared sensors. Sensors and Actuators A: Physical, 2004, 116, 257-263.	2.0	20
38	Selective Formation and Removal of Liquid Microlenses at Predetermined Locations Within Microfluidics Through Pneumatic Control. Journal of Microelectromechanical Systems, 2008, 17, 381-392.	1.7	20
39	Electrically Tunable Quasi-3-D Mushroom Plasmonic Crystal. Journal of Lightwave Technology, 2016, 34, 2175-2181.	2.7	20
40	An integrated fiber-optic microfluidic device for detection of muscular force generation of microscopic nematodes. Lab on A Chip, 2012, 12, 3458.	3.1	18
41	MEMS Flow Sensor Using Suspended Graphene Diaphragm With Microhole Arrays. Journal of Microelectromechanical Systems, 2018, 27, 951-953.	1.7	18
42	Tape nanolithography: a rapid and simple method for fabricating flexible, wearable nanophotonic devices. Microsystems and Nanoengineering, 2018, 4, 31.	3.4	18
43	Electrospun Nanofibrous Membranes for Temperature Regulation of Microfluidic Seed Growth Chips. Journal of Nanoscience and Nanotechnology, 2012, 12, 6333-6339.	0.9	14
44	Strain-tunable plasmonic crystal using elevated nanodisks with polarization-dependent characteristics. Applied Physics Letters, 2016, 108, .	1.5	13
45	Helical-Shaped Graphene Tubular Spring Formed Within Microchannel for Wearable Strain Sensor With Wide Dynamic Range. , 2017, 1, 1-4.		13
46	A controlled biochemical release device with embedded nanofluidic channels. Applied Physics Letters, 2012, 100, 153510.	1.5	12
47	Coreâ€“Shell Microcapsules With Embedded Microactuators for Regulated Release. Journal of Microelectromechanical Systems, 2013, 22, 509-518.	1.7	12
48	A programmable nanoreplica molding for the fabrication of nanophotonic devices. Scientific Reports, 2016, 6, 22445.	1.6	12
49	Microfluidic device enabled quantitative time-lapse microscopic-photography for phenotyping vegetative and reproductive phases in Fusarium virguliforme, which is pathogenic to soybean. Scientific Reports, 2017, 7, 44365.	1.6	12
50	In-situ, real-time monitoring of nutrient uptake on plant chip integrated with nutrient sensor. , 2017, , .		12
51	NEMS-Based Infrared Metamaterial via Tuning Nanocantilevers Within Complementary Split Ring Resonators. Journal of Microelectromechanical Systems, 2017, 26, 1371-1380.	1.7	12
52	Towards nanovesicle-based disease diagnostics: a rapid single-step exosome assay within one hour throughin situimmunomagnetic extraction and nanophotonic label-free detection. Lab on A Chip, 2021, 21, 3541-3549.	3.1	12
53	Hyperspectral imaging-based exosome microarray for rapid molecular profiling of extracellular vesicles. Lab on A Chip, 2021, 21, 196-204.	3.1	11
54	Humidity assay for studying plant-pathogen interactions in miniature controlled discrete humidity environments with good throughput. Biomicrofluidics, 2016, 10, 034108.	1.2	10

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55	Microfluidic chip for automated screening of carbon dioxide conditions for microalgal cell growth. Biomicrofluidics, 2017, 11, 064104.	1.2	10
56	Tracking of water movement dynamics inside plants using leaf surface humidity sensors. , 2017, , .		10
57	Miniaturized Soil Sensor for Continuous, In-Situ Monitoring of Soil Water Potential. , 2019, , .		10
58	Continuous in situ soil nitrate sensors: The importance of highâ€resolution measurements across time and a comparison with salt extractionâ€based methods. Soil Science Society of America Journal, 2021, 85, 677-690.	1.2	9
59	Miniature Multi-Ion Sensor Integrated With Artificial Neural Network. IEEE Sensors Journal, 2021, 21, 25606-25615.	2.4	9
60	A theoretical study of a nano-opto-mechanical sensor using a photonic crystal-cantilever cavity. Journal of Optics (United Kingdom), 2012, 14, 075002.	1.0	8
61	Determination of dynamic variations in the optical properties of graphene oxide in response to gas exposure based on thin-film interference. Optics Express, 2018, 26, 6331.	1.7	7
62	In Planta Nitrate Sensor Using a Photosensitive Epoxy Bioresin. ACS Applied Materials & Interfaces, 2022, 14, 25949-25961.	4.0	7
63	Design of Nano-Opto-Mechanical Reconfigurable Photonic Integrated Circuit. Journal of Lightwave Technology, 2013, 31, 1660-1669.	2.7	6
64	Thermomechanically Tunable Infrared Metamaterials Using Asymmetric Split-Ring Resonators. Journal of Microelectromechanical Systems, 2017, 26, 1186-1188.	1.7	6
65	Chalcogenide Photonic Crystals Fabricated by Soft Imprintâ€Assisted Photodoping of Silver. Small, 2020, 16, e2000472.	5.2	6
66	Multichannel detection using transmissive diffraction grating sensor. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1645-1650.	2.4	5
67	Microfluidic eletrophoretic ion nutrient sensor. , 2016, , .		5
68	Plasmonic crystal gas sensor incorporating graphene oxide for detection of volatile organic compounds. , 2016, , .		5
69	Electrochemical detection of nitrate ions in soil water using graphene foam modified by TiO<inf>2</inf> nanofibers and enzyme molecules. , 2017, , .		5
70	Miniaturized, Field-Deployable, Continuous Soil Water Potential Sensor. IEEE Sensors Journal, 2020, 20, 14109-14117.	2.4	5
71	Patterning of nanophotonic structures at optical fiber tip for refractive index sensing. , 2016, , .		4
72	Plant miniature greenhouse. Sensors and Actuators A: Physical, 2019, 298, 111572.	2.0	4

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73	A miniaturized bioelectricity generation device using plant root exudates to feed electrogenic bacteria. Sensors and Actuators A: Physical, 2022, 342, 113649.	2.0	4
74	Smart nitrate-selective electrochemical sensors with electrospun nanofibers modified microelectrode. , 2014, , .		3
75	Angular spectrum detection instrument for label-free photonic crystal sensors. Optics Letters, 2014, 39, 2751.	1.7	3
76	In-Planta Nitrate Detection Using Insertable Plant Microsensor. , 2019, , .		3
77	MEMS Tunable Photonic Crystal-Cantilever Cavity. Journal of Microelectromechanical Systems, 2019, 28, 741-743.	1.7	3
78	All-optical programmable photonic integrated circuit: An optical analogy to electronic FPGA. , 2011, , .		2
79	Microwave meta-skin for tunable frequency selective surface and flexible invisibility cloak. , 2016, , .		2
80	Microfluidic detection of soil nitrate ions using novel electrochemical foam electrode. , 2017, , .		2
81	Microfluidic plant, soil and nematode assay chips for high-throughput plant phenotyping and sustainable agricultural management. , 2017, , .		2
82	Exosome microarray based on label-free imaging biosensor. , 2019, , .		2
83	Wearable Sensors for On-Leaf Monitoring of Volatile Organic Compounds Emissions from Plants. , 2020, , .		2
84	Tunable Resonantâ€Photopyroelectric Detector Using Chalcogenideâ^'Metalâ^'Fluoropolymer Nanograting. Advanced Optical Materials, 0, , 2101147.	3.6	2
85	Capturing subtle changes during plant growth using wearable mechanical sensors fabricated through liquid-phase fusion. , 2020, , .		2
86	On-the-fly tunable liquid microlenses capable of both in situ integration within microfluidics and real-time tuning. , 2007, , .		1
87	Monolithic Uncooled 8 Ã— 8 Bolometer Arrays Based on Poly-SiGe Thermistor. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 27, 995-1003.	0.6	1
88	Electroluminescent organic light emitting micro/nanofibers fabricated using three-fluid coaxial electrospinning. , 2009, , .		1
89	Disposable chemical and biological sensors using micro-imprinted stimuli-responsive hydrogel diffraction grating. , 2009, , .		1
90	Plasmonic-electrochemical dual modality microfluidic sensor for cancer biomarker detection. , 2017, , .		1

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91	Generation of temperature gradient on microfluidic plant chip for high-throughput plant phenotyping. , 2017, , .		1
92	NEMS-based asymmetric split ring resonators for thermomechanically tunable infrared metamaterials. , 2017, , .		1
93	A Biochemical Sensor with Artificial 3D Enzyme Network. , 2020, , .		1
94	A wireless chemical and biological microsensor based on dissolvable membranes. , 2005, , .		0
95	Plant pathogen spores grow in microfluidic droplets: A high-throughput approach to antifungal drug screening. , 2011, , .		0
96	Strain-tunable two-dimensional plasmonic crystals. , 2015, , .		0
97	Tubular graphene sensors formed within planar and helical microfluidic channels. , 2017, , .		0
98	Tape-based flexible metallic and dielectric nanophotonic devices and metamaterials. , 2017, , .		0
99	Low-Cost Extended-Gate Field Effect Transistor Sensing System Based on A Channel Structured Reference Electrode. , 2019, , .		0
100	Tunable mid-infrared optical resonator on nanopatterned chalcogenide glasses. , 2018, , .		0