

# Guangyong Li

## List of Publications by Year in descending order

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Version: 2024-02-01

109  
papers

1,650  
citations

361413

20  
h-index

315739

38  
g-index

109  
all docs

109  
docs citations

109  
times ranked

1801  
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of Augmented Reality System for AFM-Based Nanomanipulation. IEEE/ASME Transactions on Mechatronics, 2004, 9, 358-365.	5.8	199
2	Quantum image encryption scheme with iterative generalized Arnold transforms and quantum image cycle shift operations. Quantum Information Processing, 2017, 16, 1.	2.2	106
3	â€œVideolizedâ€•Atomic Force Microscopy for Interactive Nanomanipulation and Nanoassembly. IEEE Nanotechnology Magazine, 2005, 4, 605-615.	2.0	92
4	Enhancing the performance of planar organo-lead halide perovskite solar cells by using a mixed halide source. Journal of Materials Chemistry A, 2015, 3, 963-967.	10.3	91
5	Multi-image encryption scheme based on quantum 3D Arnold transform and scaled Zhongtang chaotic system. Quantum Information Processing, 2018, 17, 1.	2.2	85
6	CAD-guided automated nanoassembly using atomic force microscopy-based nonrobotics. IEEE Transactions on Automation Science and Engineering, 2006, 3, 208-217.	5.2	80
7	Sensor Referenced Real-Time Videolization of Atomic Force Microscopy for Nanomanipulations. IEEE/ASME Transactions on Mechatronics, 2008, 13, 76-85.	5.8	72
8	Recent Progress in Modeling, Simulation, and Optimization of Polymer Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 320-340.	2.5	60
9	Novel Electron Transport Layer Material for Perovskite Solar Cells with Over 22% Efficiency and Longâ€•Term Stability. Advanced Functional Materials, 2020, 30, 2004933.	14.9	55
10	Effects of semiconducting and metallic single-walled carbon nanotubes on performance of bulk heterojunction organic solar cells. Applied Physics Letters, 2009, 94, .	3.3	51
11	Practical aspects of single-pass scan Kelvin probe force microscopy. Review of Scientific Instruments, 2012, 83, 113701.	1.3	47
12	Adaptable End Effector for Atomic Force Microscopy Based Nanomanipulation. IEEE Nanotechnology Magazine, 2006, 5, 628-642.	2.0	46
13	Design, Manufacturing, and Testing of Single-Carbon-Nanotube-Based Infrared Sensors. IEEE Nanotechnology Magazine, 2009, 8, 245-251.	2.0	44
14	Investigation of recombination loss in organic solar cells by simulating intensity-dependent currentâ€•voltage measurements. Solar Energy Materials and Solar Cells, 2011, 95, 2557-2563.	6.2	42
15	Direct Observation of Hole Transfer from Semiconducting Polymer to Carbon Nanotubes. Nano Letters, 2013, 13, 2086-2091.	9.1	40
16	In situ sensing and manipulation of molecules in biological samples using a nanorobotic system. Nanomedicine: Nanotechnology, Biology, and Medicine, 2005, 1, 31-40.	3.3	36
17	Cu <sub>2</sub> ZnSn(S <sub>1-x</sub> Se <sub>x</sub> ) <sub>4</sub> thin film solar cells prepared by waterâ€•based solution process. Physica Status Solidi - Rapid Research Letters, 2014, 8, 223-227.	2.4	34
18	Probing membrane proteins using atomic force microscopy. Journal of Cellular Biochemistry, 2006, 97, 1191-1197.	2.6	27

#	ARTICLE	IF	CITATIONS
19	Augmented reality system for real-time nanomanipulation. , 0, , .		25
20	Observation of lower defect density in CH <sub>3</sub> NH <sub>3</sub> Pb(I,Cl) <sub>3</sub> solar cells by admittance spectroscopy. Applied Physics Letters, 2016, 108, .	3.3	22
21	Assembly of nanostructure using AFM based nanomanipulation system. , 2004, , .		21
22	Drift Compensation in AFM-Based Nanomanipulation by Strategic Local Scan. IEEE Transactions on Automation Science and Engineering, 2012, 9, 755-762.	5.2	20
23	Revealing the Working Mechanisms of Planar Perovskite Solar Cells With Cross-Sectional Surface Potential Profiling. IEEE Journal of Photovoltaics, 2018, 8, 125-131.	2.5	20
24	3D nanomanipulation using atomic force microscopy. , 0, , .		18
25	Single carbon nanotube based photodiodes for infrared detection. , 2007, , .		18
26	Development of Mechanostimulated Patch-Clamp System for Cellular Physiological Study. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1138-1147.	5.8	15
27	Poroelectricity of cell nuclei revealed through atomic force microscopy characterization. Applied Physics Letters, 2016, 109, .	3.3	15
28	Carbon Nanotubes for Organic Solar Cells. IEEE Nanotechnology Magazine, 2011, 5, 18-24.	1.3	14
29	Fabrication of Sub-µm Scaled MoS <sub>2</sub> Thin-Film Transistor by Phase Mode AFM Lithography. Small, 2018, 14, e1803273.	10.0	14
30	Investigation of angiotensin II type 1 receptor by atomic force microscopy with functionalized tip. Nanomedicine: Nanotechnology, Biology, and Medicine, 2005, 1, 306-312.	3.3	13
31	Atomic force yields a master nanomanipulator. IEEE Nanotechnology Magazine, 2008, 2, 13-17.	1.3	13
32	Multiscale Modeling and Simulation for Optimizing Polymer Bulk Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 300-309.	2.5	12
33	Modeling of 3-d interactive forces in nanomanipulation. , 0, , .		11
34	Amplitude Modulation Mode of Scanning Ion Conductance Microscopy. Journal of the Association for Laboratory Automation, 2015, 20, 457-462.	2.8	11
35	The application of Al <sub>2</sub> TiO <sub>5</sub> at the TiO <sub>2</sub> /perovskite interface to decrease carrier losses in solar cells. Journal of Materials Chemistry A, 2017, 5, 3691-3698.	10.3	10
36	Packaging carbon nanotube based infrared detector. , 2007, , .		9

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37	Nanostructured solar cell based on solution processed Cu <sub>2</sub> ZnSnS <sub>4</sub> nanoparticles and vertically aligned ZnO nanorod array. Physica Status Solidi - Rapid Research Letters, 2014, 8, 971-975.	2.4	9
38	Tandem polymer solar cells: simulation and optimization through a multiscale scheme. Beilstein Journal of Nanotechnology, 2017, 8, 123-133.	2.8	9
39	Calibration of a micromanipulation system. , 0, , .		8
40	Planning and Control for Automated Nanorobotic Assembly. , 0, , .		8
41	On-line sensing and display in Atomic Force Microscope based nanorobotic manipulation. , 2007, , .		8
42	Performance investigation for a silicon nanowire FET biosensor using numerical simulation. , 2010, , .		8
43	Thickness optimization of organic solar cells by optical transfer matrix. , 2011, , .		8
44	Calibration of AFM based nanomanipulation system. , 2004, , .		7
45	Simulation of a silicon nanowire FET biosensor for detecting Biotin/Streptavidin binding. , 2010, , .		7
46	Simulation study of dielectrophoretic assembly of nanowire between electrode pairs. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	6
47	Atomic Force Microscopy as Nanorobot. Methods in Molecular Biology, 2011, 736, 485-503.	0.9	6
48	Atomic Force Microscopy Sensing Using Multiple Modes. , 2006, , .		5
49	A novel approach for extracting viscoelastic parameters of living cells through combination of inverse finite element simulation and Atomic Force Microscopy. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 373-384.	1.6	5
50	Imaging with Optogenetically Engineered Living Cells as a Photodetector. Advanced Biology, 2019, 3, 1800319.	3.0	5
51	Optimal control of flexible end effector in AFM based nanomanipulation. , 2005, , .		4
52	Selective manipulation of ZnO nanowires by controlled dielectrophoretic force. , 2011, , .		4
53	Investigation of Printing-Based Graded Bulk Heterojunction Organic Solar Cells. Energy Technology, 2015, 3, 414-422.	3.8	4
54	Manipulating nano scale biological specimen in liquid. , 0, , .		3

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55	Sensor referenced guidance and control for robotic nanomanipulation. , 2007, , .		3
56	Simulation study on trajectory of dielectrophoretic force controlled nanowires. , 2012, , .		3
57	The characterization of defects states and charge injection barriers in perovskite solar cells. , 2017, , .		3
58	Advances in Scanning Ion Conductance Microscopy: Principles and Applications. IEEE Nanotechnology Magazine, 2021, 15, 17-25.	1.3	3
59	Functionalized Nano-Robot End Effector for in situ Sensing and Manipulation of Biological Specimen. , 0, , .		2
60	An AFM Method for in situ Probing Membrane Proteins under Physiological Condition. , 2006, , .		2
61	Tuning Semiconducting Properties of Single Carbon Nanotube for Fabrication of Nano Devices. , 2006, , .		2
62	Real-time position error detecting in nanomanipulation using Kalman filter. , 2007, , .		2
63	Enhanced Performance of Bulk Heterojunction Solar Cells Fabricated by Polymer:Fullerene:Carbon-Nanotube Composites. , 2008, , .		2
64	Local scan for compensation of drift contamination in AFM based nanomanipulation. , 2009, , .		2
65	Modeling and simulation of organic solar cells. , 2010, , .		2
66	Atomic Force Microscope-Based Nanorobotic System for Nanoassembly. , 2012, , 51-79.		2
67	Optimal shape for optical absorption in organic thin film solar cells. Structural and Multidisciplinary Optimization, 2014, 50, 437-451.	3.5	2
68	Reconstruction of Kelvin probe force microscopy image with experimentally calibrated point spread function. Review of Scientific Instruments, 2017, 88, 033704.	1.3	2
69	Multi-modal Intent Recognition Method for the Soft Hand Rehabilitation Exoskeleton. , 2020, , .		2
70	Advances in Dielectric Microspherical Lens Nanoscopy: Label-Free Superresolution Imaging. IEEE Nanotechnology Magazine, 2021, 15, 38-C3.	1.3	2
71	CAD-guided manufacturing of nanostructures using nanoparticles. , 0, , .		1
72	Augmented reality enhanced "top-down" nano-manufacturing. , 0, , .		1

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73	In situ single bio-molecule recognition by atomic force microscopy using functionalized tip. , 0, , .		1
74	System positioning error compensated by local scan in atomic force microscope based nanomanipulation. , 2008, , .		1
75	Performance analysis of bulk heterojunction solar cells fabricated by polymer:fullerene:carbon-nanotube composites. , 2009, , .		1
76	Measuring the physical properties of the lymphoma cells using atomic force microscopy. , 2010, , .		1
77	Theoretical and experimental study of dielectrophoretic force controlled nanowires assembly. , 2013, , .		1
78	Simulation study on 3D trajectory of dielectrophoretic force assembled nanowires. , 2014, , .		1
79	Investigation of electrical properties of contact between Molybdenum disulfide and different metals. , 2015, , .		1
80	Study of annealing induced nanoscale morphology change in organic solar cells with machine learning. , 2016, , .		1
81	Fabrication, calibration, and recovery of chemical nanosensor array for ammonia detection. , 2017, , .		1
82	Micro-Nano Fabrication: Fabrication of Sub-Micrometer-Sized MoS <sub>2</sub> Thin-Film Transistor by Phase Mode AFM Lithography (Small 49/2018). Small, 2018, 14, 1870239.	10.0	1
83	Interactive DNA sequence and structure design for DNA nanotechnology and DNA computation. , 0, , .		0
84	Experimental studies of DNA electrical properties using AFM based nano-manipulator. , 0, , .		0
85	In Situ Sensing and Manipulation in Nano Bio Systems. , 2006, , .		0
86	An AFM Method for in situ Probing Membrane Proteins under Physiological Condition. , 0, , .		0
87	Nanoassembly and Packaging of Single Carbon Nanotube Based Transistors. , 0, , .		0
88	Nanoassembly and Packaging of Single Carbon Nanotube Based Transistors. , 2006, , .		0
89	Study of DNA properties under controlled conditions using AFM based nano-robotics. , 2007, , .		0
90	Recognition of Membrane Receptor by Atomic Force Microscopy. , 2007, , .		0

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91	Nanotechnology and Membrane Receptors: Focus on Angiotensin II Receptors. Medical Clinics of North America, 2007, 91, 929-936.	2.5	0
92	Detection and real-time correction of faulty visual feedback in atomic force microscopy based nanorobotic manipulation. , 2008, , .		0
93	Real-time State Estimation and Fault Detection for Controlling Atomic Force Microscope Based Nano Manipulation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 8263-8268.	0.4	0
94	Compensation of drift contamination in AFM image by local scan. , 2009, , .		0
95	An experimental study on imaging burkitt's lymphoma cells by atomic force microscope. , 2010, , .		0
96	Measuring the molecular force of Burkitt's lymphoma patient cells using AFM. , 2010, , .		0
97	Scanning Kelvin Probe Force Microscopy for investigation of charge transport in carbon-nanotube enhanced organic photovoltaics. , 2010, , .		0
98	An experimental study on protein-protein interaction using atomic force microscopy. , 2010, , .		0
99	Imaging and measuring the protein distribution of lymphoma cells using atomic force microscopy. , 2011, , .		0
100	Probing protein-protein interaction forces using single-molecule force spectroscopy. , 2011, , .		0
101	Multiscale modeling and simulation for optimizing polymer bulk heterojunction solar cells. , 2012, , .		0
102	Investigation of charge transfer in nanostructured hybrid solar cell using Kelvin Probe Force Microscopy. , 2013, , .		0
103	Simultaneous topography imaging and molecular recognition with low crosstalk and high sensitivity. , 2013, , .		0
104	Prior knowledge based fast imaging for scanning ion conductance microscopy. , 2013, , .		0
105	Multiscale modeling and simulation for optimizing polymer bulk heterojunction solar cells. , 2013, , .		0
106	A novel approach for preparation of CuO nanostructures on conductive substrate. , 2015, , .		0
107	Finite element simulation of stress relaxation process in living cells. , 2015, , .		0
108	Bio-Syncretic Light-gated Field-Effect Transistor: Fabrication and Characterization. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
109	Nanometrology and Nanocharacterization: Keys to the Advancement of Nanotechnology [Guest Editorial]. IEEE Nanotechnology Magazine, 2021, 15, 3-3.	1.3	0