

Qiliang Li

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2288394/publications.pdf>

Version: 2024-02-01

108
papers

3,434
citations

159585

30
h-index

149698

56
g-index

109
all docs

109
docs citations

109
times ranked

5362
citing authors

#	ARTICLE	IF	CITATIONS
1	A Novel Vectorization Tracking Algorithm for Maritime Emission Monitoring Assisted with E-Nose Enabled Unmanned Aerial Vehicle. IEEE Sensors Journal, 2024, , 1-1.	4.7	0
2	Precise Detection and Quantitative Prediction of Blood Glucose Level With an Electronic Nose System. IEEE Sensors Journal, 2022, 22, 12452-12459.	4.7	13
3	Hole doping induced half-metallic itinerant ferromagnetism and giant magnetoresistance in CrI ₃ monolayer. Applied Surface Science, 2021, 535, 147693.	6.1	26
4	Families of asymmetrically functionalized germanene films as promising quantum spin Hall insulators. Physical Chemistry Chemical Physics, 2021, 23, 3595-3605.	2.8	3
5	Enhanced energy storage performance and thermal stability in relaxor ferroelectric (1-x)BiFeO ₃ -x(0.85BaTiO ₃ -0.15Bi(Sn _{0.5} Zn _{0.5})O ₃) ceramics. Journal of the American Ceramic Society, 2021, 104, 2646-2654.	3.8	38
6	Recent Progress in Smart Electronic Nose Technologies Enabled with Machine Learning Methods. Sensors, 2021, 21, 7620.	3.8	42
7	Novel Te doping in Y ₂ O ₃ -Al ₂ O ₃ system phosphor. Journal of Alloys and Compounds, 2020, 821, 153474.	5.5	3
8	New Alternating Current Noise Analytics Enables High Discrimination in Gas Sensing. Analytical Chemistry, 2020, 92, 824-829.	6.5	6
9	Maritime vessel emission monitoring by an UAV gas sensor system. Ocean Engineering, 2020, 218, 108206.	4.3	24
10	Enhanced performance of In ₂ O ₃ nanowire field effect transistors with controllable surface functionalization of Ag nanoparticles. Nanotechnology, 2020, 31, 355703.	2.6	6
11	Adaptive Semantic Segmentation for Unmanned Surface Vehicle Navigation. Electronics (Switzerland), 2020, 9, 213.	3.1	13
12	Target Detection, Positioning and Tracking Using New UAV Gas Sensor Systems: Simulation and Analysis. Journal of Intelligent and Robotic Systems: Theory and Applications, 2019, 94, 871-882.	3.4	34
13	Observation and control of the anomalous Aharonov-Bohm oscillation in enhanced-mode topological insulator nanowire field-effect transistors. Applied Physics Letters, 2019, 115, 073107.	3.3	4
14	New families of large band gap 2D topological insulators in ethynyl-derivative functionalized compounds. Applied Surface Science, 2019, 484, 1208-1213.	6.1	12
15	High-performance room-temperature TiO ₂ -functionalized GaN nanowire gas sensors. Applied Physics Letters, 2019, 115, .	3.3	22
16	Nonvolatile memory based on redox-active ruthenium molecular monolayers. Applied Physics Letters, 2019, 115, 162102.	3.3	6
17	Autonomous Visual Perception for Unmanned Surface Vehicle Navigation in an Unknown Environment. Sensors, 2019, 19, 2216.	3.8	29
18	Nanoelectronic Materials, Devices and Modeling: Current Research Trends. Electronics (Switzerland), 2019, 8, 564.	3.1	3

#	ARTICLE	IF	CITATIONS
19	Recent Advances in Electrochemical Sensors for Detecting Toxic Gases: NO ₂ , SO ₂ and H ₂ S. <i>Sensors</i> , 2019, 19, 905.	3.8	223
20	High-Performance Nonequilibrium InSb PIN Infrared Photodetectors. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1361-1367.	3.0	11
21	Study of interfacial strain at the $\hat{1}\pm$ -Al ₂ O ₃ /monolayer MoS ₂ interface by first principle calculations. <i>Applied Surface Science</i> , 2018, 428, 593-597.	6.1	18
22	Enhance the Discrimination Precision of Graphene Gas Sensors with a Hidden Markov Model. <i>Analytical Chemistry</i> , 2018, 90, 13790-13795.	6.5	6
23	A hierarchical vision-based localization of rotor unmanned aerial vehicles for autonomous landing. <i>International Journal of Distributed Sensor Networks</i> , 2018, 14, 155014771880065.	2.2	4
24	Precise gas discrimination with cross-reactive graphene and metal oxide sensor arrays. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	16
25	A Hierarchical Vision-Based UAV Localization for an Open Landing. <i>Electronics (Switzerland)</i> , 2018, 7, 68.	3.1	16
26	Optimization of the Transient Feature Analysis for Graphene Chemical Vapor Sensors: A Comprehensive Study. <i>IEEE Sensors Journal</i> , 2017, 17, 6350-6359.	4.7	10
27	Piezoelectricity enhancement and bandstructure modification of atomic defect-mediated MoS ₂ monolayer. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24271-24275.	2.8	11
28	Two-dimensional hybrid layered materials: strain engineering on the band structure of MoS ₂ /WSe ₂ hetero-multilayers. <i>Nanotechnology</i> , 2017, 28, 365202.	2.6	8
29	A New Combined Vision Technique for Micro Aerial Vehicle Pose Estimation. <i>Robotics</i> , 2017, 6, 6.	3.5	6
30	Design and optimization of collection efficiency and conversion gain of buried p-well SOI pixel X-ray detector. <i>Electronics (Switzerland)</i> , 2017, 6, 26.	3.1	0
31	A New Type of Explosive Chemical Detector Based on an Organic Photovoltaic Cell. <i>Electronics (Switzerland)</i> , 2017, 6, 55.	3.1	2
32	Novel Molecular Non-Volatile Memory: Application of Redox-Active Molecules. <i>Applied Sciences (Switzerland)</i> , 2016, 6, 7.	2.5	10
33	Field effects of current crowding in metal-MoS ₂ contacts. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	23
34	Strain-engineering the anisotropic electrical conductance in ReS ₂ monolayer. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	53
35	Dirac fermions induced in strained zigzag phosphorus nanotubes and their applications in field effect transistors. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 32521-32527.	2.8	3
36	Preparation of epitaxial hexagonal YMnO ₃ thin films and observation of ferroelectric vortex domains. <i>Npj Quantum Materials</i> , 2016, 1, .	5.2	49

#	ARTICLE	IF	CITATIONS
37	A reliable vehicle detection-location framework based on homography planar projection. , 2016, , .		0
38	Discrimination Enhancement with Transient Feature Analysis of a Graphene Chemical Sensor. Analytical Chemistry, 2016, 88, 1401-1406.	6.5	35
39	Chemical Discrimination with an Unmodified Graphene Chemical Sensor. ACS Sensors, 2016, 1, 26-31.	7.8	121
40	Anisotropic thermoelectric behavior in armchair and zigzag mono- and fewlayer MoS ₂ in thermoelectric generator applications. Scientific Reports, 2015, 5, 13706.	3.3	61
41	Novel Two-Dimensional Mechano-Electric Generators and Sensors Based on Transition Metal Dichalcogenides. Scientific Reports, 2015, 5, 12854.	3.3	21
42	A computational study of the electronic properties of one-dimensional armchair phosphorene nanotubes. Journal of Applied Physics, 2015, 118, .	2.5	45
43	Transfer characteristics and low-frequency noise in single- and multi-layer MoS ₂ field-effect transistors. Applied Physics Letters, 2015, 107, 162102.	3.3	21
44	On the Nature of the Memory Mechanism of Gated-Thyristor Dynamic-RAM Cells. IEEE Journal of the Electron Devices Society, 2015, 3, 468-471.	2.1	15
45	On the T-RAM and FED-RAM memory mechanism. , 2015, , .		2
46	Redox-Active Molecular Nanowire Flash Memory for High-Endurance and High-Density Nonvolatile Memory Applications. ACS Applied Materials & Interfaces, 2015, 7, 27306-27313.	8.0	59
47	SOI FED-SRAM Cell: Structure and Operation. IEEE Transactions on Electron Devices, 2015, 62, 2865-2870.	3.0	21
48	Phase transition, effective mass and carrier mobility of MoS ₂ monolayer under tensile strain. Applied Surface Science, 2015, 325, 27-32.	6.1	132
49	Self-assembled nanowire array capacitors: capacitance and interface state profile. Nanotechnology, 2014, 25, 135201.	2.6	8
50	Polarization of Bi ₂ Te ₃ thin film in a floating-gate capacitor structure. Applied Physics Letters, 2014, 105, 233505.	3.3	1
51	SnTe field effect transistors and the anomalous electrical response of structural phase transition. Applied Physics Letters, 2014, 105, .	3.3	6
52	Gate assisted Kelvin test structure to measure the electron and hole flows at the same nanowire contacts. Applied Physics Letters, 2014, 105, 133513.	3.3	1
53	Discrete charge states in nanowire flash memory with multiple Ta ₂ O ₅ charge-trapping stacks. Applied Physics Letters, 2014, 104, .	3.3	25
54	Electrical transport and low-frequency noise in chemical vapor deposited single-layer MoS ₂ devices. Nanotechnology, 2014, 25, 155702.	2.6	43

#	ARTICLE	IF	CITATIONS
55	Design and Fabrication of Ta ₂ O ₅ Stacks for Discrete Multibit Memory Application. IEEE Nanotechnology Magazine, 2013, 12, 1151-1157.	2.0	14
56	Ultraviolet/ozone treatment to reduce metal-graphene contact resistance. Applied Physics Letters, 2013, 102, .	3.3	112
57	High performance topological insulator nanowire field-effect transistors. , 2013, , .		2
58	Detection of Deep-Levels in Doped Silicon Nanowires Using Low-Frequency Noise Spectroscopy. IEEE Transactions on Electron Devices, 2013, 60, 4206-4212.	3.0	17
59	SOI Field-Effect Diode DRAM Cell: Design and Operation. IEEE Electron Device Letters, 2013, 34, 1002-1004.	3.9	49
60	Topological Insulator Bi ₂ Se ₃ Nanowire High Performance Field-Effect Transistors. Scientific Reports, 2013, 3, .	3.3	73
61	High performance Bi ₂ Se ₃ nanowire field-effect transistors. , 2013, , .		0
62	Non-volatile memory with self-assembled ferrocene charge trapping layer. Applied Physics Letters, 2013, 103, .	3.3	19
63	Self-aligned multi-channel silicon nanowire field-effect transistors. Solid-State Electronics, 2012, 78, 92-96.	1.4	21
64	Fabrication, characterization and simulation of high performance Si nanowire-based non-volatile memory cells. Nanotechnology, 2011, 22, 254020.	2.6	31
65	Toward Clean and Crackless Transfer of Graphene. ACS Nano, 2011, 5, 9144-9153.	14.6	701
66	Self-aligned multi-channel silicon nanowire field-effect transistors. , 2011, , .		0
67	<i>In vivo</i> electrochemical characterization and inflammatory response of multiwalled carbon nanotube-based electrodes in rat hippocampus. Journal of Neural Engineering, 2010, 7, 016002.	3.5	20
68	Application of ALD High-k Dielectric Films as Charge Storage Layer and Blocking Oxide in Nonvolatile Memories. ECS Transactions, 2009, 25, 473-479.	0.5	0
69	The large-scale integration of high-performance silicon nanowire field effect transistors. Nanotechnology, 2009, 20, 415202.	2.6	22
70	Advanced Capacitance Metrology for Nanoelectronic Device Characterization. , 2009, , .		0
71	Silicon nanowire NVM with high-k gate dielectric stack. Microelectronic Engineering, 2009, 86, 1957-1960.	2.4	10
72	Steep subthreshold slope nanowire FETs with gate-induced Schottky-barrier tunneling. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
73	Scaling of the SOI field effect diode (FED) for memory application. , 2009, , .		27
74	Silicon nanowire NVM cell using high-k dielectric charge storage layer. Microelectronic Engineering, 2008, 85, 2403-2405.	2.4	11
75	Metrology for the Electrical Characterization of Semiconductor Nanowires. IEEE Transactions on Electron Devices, 2008, 55, 3086-3095.	3.0	17
76	HYBRID SILICON-MOLECULAR ELECTRONICS. Modern Physics Letters B, 2008, 22, 1183-1202.	1.9	5
77	Measurements for the reliability and electrical characterization of semiconductor nanowires. , 2008, , .		0
78	Design, Fabrication and Characterization of High-Performance Silicon Nanowire Transistor. , 2008, , .		0
79	Three-Dimensional Simulation Study of the Improved On/Off Current Ratio in Silicon Nanowire Field-Effect Transistors. Journal of the Korean Physical Society, 2008, 53, 1680-1684.	0.7	0
80	Random Telegraph Signals and 1/f Noise in ZnO Nanowire Field Effect Transistors. , 2007, , .		0
81	Methods to Characterize the Electrical and Mechanical Properties of Si Nanowires. AIP Conference Proceedings, 2007, , .	0.4	0
82	Random telegraph signals in n-type ZnO nanowire field effect transistors at low temperature. Applied Physics Letters, 2007, 91, .	3.3	30
83	Silicon nanowire memory application using hafnium oxide charge storage layer. , 2007, , .		0
84	Silicon Nanowire Electromechanical Switch for Logic Device Application. Materials Research Society Symposia Proceedings, 2007, 1018, 1.	0.1	3
85	Silicon nanowire electromechanical switches for logic device application. Nanotechnology, 2007, 18, 315202.	2.6	52
86	Nanowire electromechanical logic switch. , 2007, , .		1
87	Silicon nanowire on oxide/nitride/oxide for memory application. Nanotechnology, 2007, 18, 235204.	2.6	38
88	Precise Alignment of Single Nanowires and Fabrication of Nanoelectromechanical Switch and Other Test Structures. IEEE Nanotechnology Magazine, 2007, 6, 256-262.	2.0	52
89	Hybrid silicon/molecular FETs: a study of the interaction of redox-active molecules with silicon MOSFETs. IEEE Nanotechnology Magazine, 2006, 5, 258-264.	2.0	13
90	Redox-active monolayers on nano-scale silicon electrodes. Nanotechnology, 2005, 16, 257-261.	2.6	16

#	ARTICLE	IF	CITATIONS
91	Approach for investigating lateral conduction in self-assembled monolayers. Applied Physics Letters, 2005, 87, 262115.	3.3	1
92	Properties of Functionalized Redox-Active Monolayers on Thin Silicon Dioxide—A Study of the Dependence of Retention Time on Oxide Thickness. IEEE Nanotechnology Magazine, 2005, 4, 278-283.	2.0	12
93	Enhanced Channel Modulation in Dual-Gated Silicon Nanowire Transistors. Nano Letters, 2005, 5, 2519-2523.	9.1	129
94	Silicon nanowires as enhancement-mode Schottky barrier field-effect transistors. Nanotechnology, 2005, 16, 1482-1485.	2.6	126
95	Multiple-bit storage properties of porphyrin monolayers on SiO ₂ . Applied Physics Letters, 2004, 85, 1829-1831.	3.3	46
96	Synthesis of Porphyrins Bearing Hydrocarbon Tethers and Facile Covalent Attachment to Si(100). Journal of Organic Chemistry, 2004, 69, 5568-5577.	3.2	58
97	Porphyrins Bearing Arylphosphonic Acid Tethers for Attachment to Oxide Surfaces.. ChemInform, 2004, 35, no.	0.0	0
98	Porphyrins Bearing Mono or Tripodal Benzylphosphonic Acid Tethers for Attachment to Oxide Surfaces.. ChemInform, 2004, 35, no.	0.0	0
99	Porphyrins Bearing Mono or Tripodal Benzylphosphonic Acid Tethers for Attachment to Oxide Surfaces. Journal of Organic Chemistry, 2004, 69, 1453-1460.	3.2	79
100	Porphyrins Bearing Arylphosphonic Acid Tethers for Attachment to Oxide Surfaces. Journal of Organic Chemistry, 2004, 69, 1444-1452.	3.2	71
101	Electrical characterization of redox-active molecular monolayers on SiO ₂ for memory applications. Applied Physics Letters, 2003, 83, 198-200.	3.3	59
102	Capacitance and conductance characterization of ferrocene-containing self-assembled monolayers on silicon surfaces for memory applications. Applied Physics Letters, 2002, 81, 1494-1496.	3.3	98
103	Surface morphology and structural observation of laser interference crystallized a-Si:H/a-SiN _x :H multilayers. Applied Surface Science, 2000, 165, 85-90.	6.1	8
104	Enhanced ferroelectric properties of Pb(Ta _{0.05} Zr _{0.48} Ti _{0.47})O ₃ thin films on Pt/TiO ₂ /SiO ₂ /Si substrates using La _{0.67} Sr _{0.33} MnO ₃ buffer layers. Journal Physics D: Applied Physics, 2000, 33, 107-110.	2.8	6
105	Hybrid CMOS/molecular memories using redox-active self-assembled monolayers. , 0, , .		5
106	Modulation of drain current by redox-active molecules incorporated in Si MOSFETs. , 0, , .		7
107	Silicon Nanowire Field Effect Transistor Test Structures Fabricated by Top-down Approaches. , 0, , .		0
108	Redox-Active Molecules for Novel Nonvolatile Memory Applications. , 0, , .		1