

Lin Han

List of Publications by Year in descending order

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73
papers

2,165
citations

218592

26
h-index

243529

44
g-index

73
all docs

73
docs citations

73
times ranked

3207
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanotopography Influences Adhesion, Spreading, and Self-Renewal of Human Embryonic Stem Cells. ACS Nano, 2012, 6, 4094-4103.	7.3	353
2	Highly multiplexed profiling of single-cell effector functions reveals deep functional heterogeneity in response to pathogenic ligands. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E607-15.	3.3	245
3	Nanowire Substrate-Based Laser Scanning Cytometry for Quantitation of Circulating Tumor Cells. Nano Letters, 2012, 12, 2697-2704.	4.5	123
4	A single-layer permeation barrier for organic light-emitting displays. Applied Physics Letters, 2008, 92, 103309.	1.5	71
5	Co-detection and sequencing of genes and transcripts from the same single cells facilitated by a microfluidics platform. Scientific Reports, 2014, 4, 6485.	1.6	65
6	Applications of 2D-Layered Palladium Diselenide and Its van der Waals Heterostructures in Electronics and Optoelectronics. Nano-Micro Letters, 2021, 13, 143.	14.4	61
7	Ultrasensitive Label-free miRNA Sensing Based on a Flexible Graphene Field-Effect Transistor without Functionalization. ACS Applied Electronic Materials, 2020, 2, 1090-1098.	2.0	59
8	Ultraflexible amorphous silicon transistors made with a resilient insulator. Applied Physics Letters, 2010, 96, 042111.	1.5	53
9	Interfacing Inorganic Nanowire Arrays and Living Cells for Cellular Function Analysis. Small, 2015, 11, 5600-5610.	5.2	50
10	Mechanoluminescence enhancement of ZnS:Cu,Mn with piezotronic effect induced trap-depth reduction originated from PVDF ferroelectric film. Nano Energy, 2019, 63, 103861.	8.2	50
11	A Facile and Effective Method for Patching Sulfur Vacancies of WS ₂ via Nitrogen Plasma Treatment. Small, 2019, 15, e1901791.	5.2	48
12	Poly-L-lysine-Modified Graphene Field-Effect Transistor Biosensors for Ultrasensitive Breast Cancer miRNAs and SARS-CoV-2 RNA Detection. Analytical Chemistry, 2022, 94, 1626-1636.	3.2	48
13	Synthesis of Wafer-Scale Graphene with Chemical Vapor Deposition for Electronic Device Applications. Advanced Materials Technologies, 2021, 6, 2000744.	3.0	46
14	Attomolar-Level Ultrasensitive and Multiplex microRNA Detection Enabled by a Nanomaterial Locally Assembled Microfluidic Biochip for Cancer Diagnosis. Analytical Chemistry, 2021, 93, 5129-5136.	3.2	44
15	Graphene oxide-graphene Van der Waals heterostructure transistor biosensor for SARS-CoV-2 protein detection. Talanta, 2022, 240, 123197.	2.9	40
16	Rapid and sensitive triple-mode detection of causative SARS-CoV-2 virus specific genes through interaction between genes and nanoparticles. Analytica Chimica Acta, 2021, 1154, 338330.	2.6	37
17	Piezopotential gated two-dimensional InSe field-effect transistor for designing a pressure sensor based on piezotronic effect. Nano Energy, 2020, 70, 104457.	8.2	35
18	Large-area surface-enhanced Raman spectroscopy substrate by hybrid porous GaN with Au/Ag for breast cancer miRNA detection. Applied Surface Science, 2021, 541, 148456.	3.1	35

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19	Regulation of stem cell fate using nanostructure-mediated physical signals. <i>Chemical Society Reviews</i> , 2021, 50, 12828-12872.	18.7	35
20	Amorphous silicon thin-film transistors with field-effect mobilities of $2 \times 10^4 \text{ cm}^2/\text{Vs}$ for electrons and $0.1 \times 10^4 \text{ cm}^2/\text{Vs}$ for holes. <i>Applied Physics Letters</i> , 2009, 94, 162105.	1.5	34
21	A rapid and ultrasensitive colorimetric biosensor based on aptamer functionalized Au nanoparticles for detection of saxitoxin. <i>RSC Advances</i> , 2020, 10, 15293-15298.	1.7	33
22	Construction of High Field-Effect Mobility Multilayer MoS ₂ Field-Effect Transistors with Excellent Stability through Interface Engineering. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2132-2140.	2.0	32
23	Bisulfite-independent analysis of CpG island methylation enables genome-scale stratification of single cells. <i>Nucleic Acids Research</i> , 2017, 45, gkx026.	6.5	31
24	Stable InSe transistors with high-field effect mobility for reliable nerve signal sensing. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	31
25	Enrichment-Detection Integrated Exosome Profiling Biosensors Promising for Early Diagnosis of Cancer. <i>Analytical Chemistry</i> , 2021, 93, 4697-4706.	3.2	30
26	Properties of a Permeation Barrier Material Deposited from Hexamethyl Disiloxane and Oxygen. <i>Journal of the Electrochemical Society</i> , 2009, 156, H106.	1.3	28
27	Microfluidic chip for multiple detection of miRNA biomarkers in breast cancer based on three-segment hybridization. <i>AIP Advances</i> , 2020, 10, .	0.6	26
28	Ultrasensitive, high-throughput, and rapid simultaneous detection of SARS-CoV-2 antigens and IgG/IgM antibodies within 10 min through an immunoassay biochip. <i>Mikrochimica Acta</i> , 2021, 188, 262.	2.5	23
29	Low Lattice Mismatch InSe/Se Vertical Van der Waals Heterostructure for High-Performance Transistors via Strong Fermi Level Depinning. <i>Small Methods</i> , 2020, 4, 2000238.	4.6	22
30	Ultrasensitive, high-throughput and multiple cancer biomarkers simultaneous detection in serum based on graphene oxide quantum dots integrated microfluidic biosensing platform. <i>Analytica Chimica Acta</i> , 2021, 1178, 338791.	2.6	22
31	Ultrasensitive Detection of COVID-19 Causative Virus (SARS-CoV-2) Spike Protein Using Laser Induced Graphene Field-Effect Transistor. <i>Molecules</i> , 2021, 26, 6947.	1.7	22
32	Fabrication of a uniform Au nanodot array/monolayer graphene hybrid structure for high-performance surface-enhanced Raman spectroscopy. <i>Journal of Materials Science</i> , 2020, 55, 591-602.	1.7	20
33	A novel anti <i>Candida albicans</i> drug screening system based on high-throughput microfluidic chips. <i>Scientific Reports</i> , 2019, 9, 8087.	1.6	17
34	Lys-AuNPs@MoS ₂ Nanocomposite Self-Assembled Microfluidic Immunoassay Biochip for Ultrasensitive Detection of Multiplex Biomarkers for Cardiovascular Diseases. <i>Analytical Chemistry</i> , 2022, 94, 4720-4728.	3.2	17
35	High Performance Thin Film Transistors With Sputtered InAlZnO Channel and Different Source/Drain Electrodes. <i>IEEE Electron Device Letters</i> , 2019, 40, 247-250.	2.2	16
36	Tunable nanostructured distributed Bragg reflectors for III-nitride optoelectronic applications. <i>RSC Advances</i> , 2020, 10, 23341-23349.	1.7	15

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37	Diffusion of atmospheric gases into barrier-layer sealed organic light emitting diodes. <i>Applied Physics Letters</i> , 2008, 93, 203306.	1.5	14
38	Effect of Hydroxyapatite Nanorods on the Fate of Human Adipose-Derived Stem Cells Assessed In Situ at the Single Cell Level with a High-Throughput, Real-Time Microfluidic Chip. <i>Small</i> , 2019, 15, e1905001.	5.2	14
39	Effect of substrate temperature on sputtered indium-aluminum-zinc oxide films and thin film transistors. <i>Journal of Alloys and Compounds</i> , 2019, 791, 773-778.	2.8	14
40	High-Throughput, Living Single-Cell, Multiple Secreted Biomarker Profiling Using Microfluidic Chip and Machine Learning for Tumor Cell Classification. <i>Advanced Healthcare Materials</i> , 2022, 11, e2102800.	3.9	14
41	Nanowire array chips for molecular typing of rare trafficking leukocytes with application to neurodegenerative pathology. <i>Nanoscale</i> , 2014, 6, 6537-6550.	2.8	13
42	Improved performance of InSe field-effect transistors by channel encapsulation. <i>Semiconductor Science and Technology</i> , 2018, 33, 06LT01.	1.0	13
43	Reduction of the ambient effect in multilayer InSe transistors and a strategy toward stable 2D-based optoelectronic applications. <i>Nanoscale</i> , 2020, 12, 18356-18362.	2.8	13
44	Controllable Nanoparticle Aggregation through a Superhydrophobic Laser-Induced Graphene Dynamic System for Surface-Enhanced Raman Scattering Detection. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 3504-3514.	4.0	13
45	Laser-Induced Graphene Superhydrophobic Surface Transition from Pinning to Rolling for Multiple Applications. <i>Small Methods</i> , 2022, 6, e2200096.	4.6	13
46	Graphene-based field-effect transistors integrated with microfluidic chip for real-time pH monitoring of seawater. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 15372-15380.	1.1	12
47	Highly efficient UV-Ozone treatment for IAZO active layer to facilitate the low temperature fabrication of high performance thin film transistors. <i>Ceramics International</i> , 2020, 46, 17295-17299.	2.3	12
48	Surface specifically modified NK-92 cells with CD56 antibody conjugated superparamagnetic Fe ₃ O ₄ nanoparticles for magnetic targeting immunotherapy of solid tumors. <i>Nanoscale</i> , 2021, 13, 19109-19122.	2.8	12
49	Aptamer-based signal amplification strategies coupled with microchips for high-sensitivity bioanalytical applications: A review. <i>Analytica Chimica Acta</i> , 2022, 1209, 339893.	2.6	11
50	Large area uniform PtSx synthesis on sapphire substrate for performance improved photodetectors. <i>Applied Materials Today</i> , 2021, 25, 101176.	2.3	10
51	A high-performance microfluidic detection platform to conduct a novel multiple-biomarker panel for ovarian cancer screening. <i>RSC Advances</i> , 2021, 11, 8124-8133.	1.7	10
52	Rapid and High-Throughput SARS-CoV-2 RNA Detection without RNA Extraction and Amplification by Using a Microfluidic Biochip. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	9
53	A New Gate Dielectric for Highly Stable Amorphous-Silicon Thin-Film Transistors With $\sim 1.5\text{-cm}^2/\text{Vs}$ Electron Field-Effect Mobility. <i>IEEE Electron Device Letters</i> , 2009, 30, 502-504.	2.2	7
54	Self-Aligned Top-Gate Coplanar a-Si:H Thin-Film Transistors With a SiO_2 -Silicone Hybrid Gate Dielectric. <i>IEEE Electron Device Letters</i> , 2011, 32, 36-38.	2.2	6

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55	A Facile and Sensitive DNA Sensing of Harmful Algal Blooms Based on Graphene Oxide Nanosheets. <i>Marine Biotechnology</i> , 2020, 22, 498-510.	1.1	6
56	A Novel Thermally Evaporated Etching Mask for Low-Damage Dry Etching. <i>IEEE Nanotechnology Magazine</i> , 2017, 16, 290-295.	1.1	5
57	Single-Crystalline, Nanoporous Gallium Nitride Films With Fine Tuning of Pore Size for Stem Cell Engineering. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2014, 5, 0410041-410049.	0.8	4
58	Mechanical Stress Induces a Transient Suppression of Cytokine Secretion in Astrocytes Assessed at the Single-Cell Level with a High-Throughput Microfluidic Chip. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100698.	3.9	4
59	Structure design of amorphous silicon thin film transistor used as uncooled infrared sensors. <i>Infrared Physics and Technology</i> , 2007, 50, 47-50.	1.3	3
60	61.3: Amorphous Silicon TFT Technology for Rollable OLED Displays. <i>Digest of Technical Papers SID International Symposium</i> , 2010, 41, 917-920.	0.1	3
61	Universal Criterion for Critical Motion of Droplets Adhered on Surfaces with Different Wettability in Laminar Flow. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 3397-3410.	1.8	3
62	A novel uncooled a-Si microbolometer for infrared detection. , 2006, , .		2
63	Rapid, amplification-free and high-throughput SARS-CoV-2 RNA detection via a reduced-graphene-oxide based fluorescence assay. <i>Sensors & Diagnostics</i> , 0, , .	1.9	2
64	Unraveling the Mechanobiology Underlying Traumatic Brain Injury with Advanced Technologies and Biomaterials. <i>Advanced Healthcare Materials</i> , 2022, 11, .	3.9	2
65	A High Performance Uncooled a-Si TFT Infrared Sensor. , 2006, , .		1
66	New Type of Thermal-Isolation Structure Based on PI and OPS Used in Uncooled Infrared Detector. <i>IEEE Sensors Journal</i> , 2008, 8, 354-356.	2.4	1
67	Stem Cell Fate: Effect of Hydroxyapatite Nanorods on the Fate of Human Adipose-Derived Stem Cells Assessed In Situ at the Single Cell Level with a High-Throughput, Real-Time Microfluidic Chip (Small) <i>Tj ETQq1 1#2784314rgBT /O</i>		
68	Performance-Enhanced CsPbBr ₃ /HfO ₂ /Si Heterostructure Optoelectronics through the Tunneling Effect. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100279.	1.9	1
69	New application of polyimide in uncooled a-Si TFT infrared sensors. <i>Microelectronics Journal</i> , 2007, 38, 278-281.	1.1	0
70	Effects of Mechanical Strain on the Electrical Performance of Amorphous Silicon Thin-Film Transistors with a New Gate Dielectric. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1196, 8.	0.1	0
71	17.3: aSi:H Thinfilm Transistors with a New Hybrid Dielectric Highly Stable under Mechanical and Electrical Stress. <i>Digest of Technical Papers SID International Symposium</i> , 2010, 41, 238-240.	0.1	0
72	(Invited) A New Insulator for Thin-Film Transistor Backplanes and for Flexible Passivation Layers. <i>ECS Transactions</i> , 2010, 33, 125-134.	0.3	0

#	ARTICLE	IF	CITATIONS
73	Field-Effect Transistors: A Facile and Effective Method for Patching Sulfur Vacancies of WS ₂ via Nitrogen Plasma Treatment (Small 36/2019). Small, 2019, 15, 1970195.	5.2	0