

Chi-Hwan Lee

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

6,669
citations

94433

37
h-index

95266

68
g-index

76
all docs

76
docs citations

76
times ranked

10779
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioresorbable silicon electronic sensors for the brain. <i>Nature</i> , 2016, 530, 71-76.	27.8	778
2	Simultaneously Efficient Light Absorption and Charge Separation in WO ₃ /BiVO ₄ Core/Shell Nanowire Photoanode for Photoelectrochemical Water Oxidation. <i>Nano Letters</i> , 2014, 14, 1099-1105.	9.1	652
3	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. <i>Science</i> , 2019, 363, .	12.6	521
4	Soft network composite materials with deterministic and bio-inspired designs. <i>Nature Communications</i> , 2015, 6, 6566.	12.8	392
5	High-Resolution Patterns of Quantum Dots Formed by Electrohydrodynamic Jet Printing for Light-Emitting Diodes. <i>Nano Letters</i> , 2015, 15, 969-973.	9.1	355
6	Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide. <i>Nature Communications</i> , 2015, 6, 7381.	12.8	331
7	Biodegradable Elastomers and Silicon Nanomembranes/Nanoribbons for Stretchable, Transient Electronics, and Biosensors. <i>Nano Letters</i> , 2015, 15, 2801-2808.	9.1	281
8	Codoping titanium dioxide nanowires with tungsten and carbon for enhanced photoelectrochemical performance. <i>Nature Communications</i> , 2013, 4, 1723.	12.8	249
9	Battery-free, wireless sensors for full-body pressure and temperature mapping. <i>Science Translational Medicine</i> , 2018, 10, .	12.4	247
10	Rapid and Controllable Flame Reduction of TiO ₂ Nanowires for Enhanced Solar Water-Splitting. <i>Nano Letters</i> , 2014, 14, 24-31.	9.1	180
11	Hybrid Si Microwire and Planar Solar Cells: Passivation and Characterization. <i>Nano Letters</i> , 2011, 11, 2704-2708.	9.1	151
12	Fabricating nanowire devices on diverse substrates by simple transfer-printing methods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 9950-9955.	7.1	123
13	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. <i>Nature</i> , 2021, 597, 503-510.	27.8	120
14	Soft Core/Shell Packages for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2015, 25, 3698-3704.	14.9	116
15	Multilayer Transfer Printing for Pixelated, Multicolor Quantum Dot Light-Emitting Diodes. <i>ACS Nano</i> , 2016, 10, 4920-4925.	14.6	115
16	Mechanically Reinforced Skin-like Electronics with Networked Nanocomposite Elastomer. <i>Advanced Materials</i> , 2016, 28, 10257-10265.	21.0	108
17	Fabrication of Flexible and Vertical Silicon Nanowire Electronics. <i>Nano Letters</i> , 2012, 12, 3339-3343.	9.1	107
18	Fabrication of Nanowire Electronics on Nonconventional Substrates by Water-Assisted Transfer Printing Method. <i>Nano Letters</i> , 2011, 11, 3435-3439.	9.1	98

#	ARTICLE	IF	CITATIONS
19	Transfer Printing Methods for Flexible Thin Film Solar Cells: Basic Concepts and Working Principles. ACS Nano, 2014, 8, 8746-8756.	14.6	89
20	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. Science Advances, 2020, 6, eabb1093.	10.3	87
21	Printing Flexible and Hybrid Electronics for Human Skin and Eye-Interfaced Health Monitoring Systems. Advanced Materials, 2020, 32, e1902051.	21.0	83
22	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. NPG Asia Materials, 2015, 7, e227-e227.	7.9	80
23	Vertical Transfer of Uniform Silicon Nanowire Arrays via Crack Formation. Nano Letters, 2011, 11, 1300-1305.	9.1	73
24	Probing Flow Velocity with Silicon Nanowire Sensors. Nano Letters, 2009, 9, 1984-1988.	9.1	72
25	Peel-and-Stick: Fabricating Thin Film Solar Cell on Universal Substrates. Scientific Reports, 2012, 2, 1000.	3.3	66
26	High-Performance Ultrathin BiVO ₄ Photoanode on Textured Polydimethylsiloxane Substrates for Solar Water Splitting. ACS Energy Letters, 2016, 1, 68-75.	17.4	66
27	Flexible submental sensor patch with remote monitoring controls for management of oropharyngeal swallowing disorders. Science Advances, 2019, 5, eaay3210.	10.3	61
28	Peel-and-Stick: Mechanism Study for Efficient Fabrication of Flexible/Transparent Thin-film Electronics. Scientific Reports, 2013, 3, 2917.	3.3	59
29	Solution-processed single-walled carbon nanotube field effect transistors and bootstrapped inverters for disintegratable, transient electronics. Applied Physics Letters, 2014, 105, .	3.3	51
30	Visibly Clear Radiative Cooling Metamaterials for Enhanced Thermal Management in Solar Cells and Windows. Advanced Functional Materials, 2022, 32, 2105882.	14.9	51
31	Bioresorbable, Miniaturized Porous Silicon Needles on a Flexible Water-Soluble Backing for Unobtrusive, Sustained Delivery of Chemotherapy. ACS Nano, 2020, 14, 7227-7236.	14.6	50
32	Electrochemically active materials and wearable biosensors for the in situ analysis of body fluids for human healthcare. NPG Asia Materials, 2021, 13, .	7.9	46
33	Skin-Mountable Biosensors and Therapeutics: A Review. Annual Review of Biomedical Engineering, 2019, 21, 299-323.	12.3	45
34	Sol-flame synthesis of cobalt-doped TiO ₂ nanowires with enhanced electrocatalytic activity for oxygen evolution reaction. Physical Chemistry Chemical Physics, 2014, 16, 12299-12306.	2.8	44
35	Wafer-recyclable, environment-friendly transfer printing for large-scale thin-film nanoelectronics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7236-E7244.	7.1	43
36	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. Advanced Functional Materials, 2015, 25, 1338-1343.	14.9	41

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37	All-printed stretchable corneal sensor on soft contact lenses for noninvasive and painless ocular electrodiagnosis. <i>Nature Communications</i> , 2021, 12, 1544.	12.8	41
38	Orientation-Controlled Alignment of Axially Modulated pn Silicon Nanowires. <i>Nano Letters</i> , 2010, 10, 5116-5122.	9.1	39
39	Flexible elastomer patch with vertical silicon nanoneedles for intracellular and intratissue nanoinjection of biomolecules. <i>Science Advances</i> , 2018, 4, eaau6972.	10.3	39
40	Wearable Glucose Monitoring and Implantable Drug Delivery Systems for Diabetes Management. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100194.	7.6	38
41	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. <i>Advanced Functional Materials</i> , 2015, 25, 5100-5106.	14.9	37
42	Three-Dimensional Silicon Electronic Systems Fabricated by Compressive Buckling Process. <i>ACS Nano</i> , 2018, 12, 4164-4171.	14.6	36
43	Dry Transient Electronic Systems by Use of Materials that Sublime. <i>Advanced Functional Materials</i> , 2017, 27, 1606008.	14.9	34
44	Electroassisted Transfer of Vertical Silicon Wire Arrays Using a Sacrificial Porous Silicon Layer. <i>Nano Letters</i> , 2013, 13, 4362-4368.	9.1	33
45	Biodegradable silicon nanoneedles for ocular drug delivery. <i>Science Advances</i> , 2022, 8, eabn1772.	10.3	31
46	Soft-packaged sensory glove system for human-like natural interaction and control of prosthetic hands. <i>NPG Asia Materials</i> , 2019, 11, .	7.9	30
47	Direct Growth of Nanowire Logic Gates and Photovoltaic Devices. <i>Nano Letters</i> , 2010, 10, 1050-1054.	9.1	29
48	Smart Electronic Textiles for Wearable Sensing and Display. <i>Biosensors</i> , 2022, 12, 222.	4.7	26
49	Fractal Web Design of a Hemispherical Photodetector Array with Organic Dye-Sensitized Graphene Hybrid Composites. <i>Advanced Materials</i> , 2020, 32, e2004456.	21.0	25
50	Shrinking and Growing: Grain Boundary Density Reduction for Efficient Polysilicon Thin-Film Solar Cells. <i>Nano Letters</i> , 2012, 12, 6485-6491.	9.1	24
51	Rapid custom prototyping of soft poroelastic biosensor for simultaneous epicardial recording and imaging. <i>Nature Communications</i> , 2021, 12, 3710.	12.8	24
52	Simple minimally-invasive automatic antidote delivery device (A2D2) towards closed-loop reversal of opioid overdose. <i>Journal of Controlled Release</i> , 2019, 306, 130-137.	9.9	22
53	Validation of a Novel Wearable Electromyography Patch for Monitoring Submental Muscle Activity During Swallowing: A Randomized Crossover Trial. <i>Journal of Speech, Language, and Hearing Research</i> , 2020, 63, 3293-3310.	1.6	19
54	Effect of Al ₂ O ₃ Concentration on Density and Structure of (CaO-SiO ₂)-xAl ₂ O ₃ Slag. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 1595-1601.	2.1	16

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55	Electrothermal soft manipulator enabling safe transport and handling of thin cell/tissue sheets and bioelectronic devices. <i>Science Advances</i> , 2020, 6, .	10.3	16
56	Chemomechanics of transfer printing of thin films in a liquid environment. <i>International Journal of Solids and Structures</i> , 2019, 180-181, 30-44.	2.7	12
57	A Programmable Dual-Regime Spray for Large-Scale and Custom-Designed Electronic Textiles. <i>Advanced Materials</i> , 2022, 34, e2108021.	21.0	12
58	Deterministic Nanoassembly of Quasi-Three-Dimensional Plasmonic Nanoarrays with Arbitrary Substrate Materials and Structures. <i>Nano Letters</i> , 2019, 19, 5796-5805.	9.1	9
59	Sensor-Instrumented Scaffold Integrated with Microporous Spongelike Ultrabuoy for Long-Term 3D Mapping of Cellular Behaviors and Functions. <i>ACS Nano</i> , 2019, 13, 7898-7904.	14.6	8
60	Three-Dimensional Hetero-Integration of Faceted GaN on Si Pillars for Efficient Light Energy Conversion Devices. <i>ACS Nano</i> , 2017, 11, 6853-6859.	14.6	7
61	Epidermal Systems: Soft Core/Shell Packages for Stretchable Electronics (<i>Adv. Funct. Mater.</i> 24/2015). <i>Advanced Functional Materials</i> , 2015, 25, 3697-3697.	14.9	6
62	Characteristics of Sodium Polyacrylate/Nano-Sized Carbon Hydrogel for Biomedical Patch. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 1611-1614.	0.9	5
63	Dual Regime Spray Deposition Based Laser Direct Writing of Metal Patterns on Polymer Substrates. <i>Journal of Micro and Nano-Manufacturing</i> , 2020, 8, .	0.7	5
64	Replicable Quasi-Three-Dimensional Plasmonic Nanoantennas for Infrared Bandpass Filtering. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 24024-24031.	8.0	4
65	Smart Assembly for Soft Bioelectronics. <i>IEEE Potentials</i> , 2016, 35, 9-13.	0.3	2
66	Advanced Materials and Assembly Strategies for Wearable Biosensors: A Review. , 0, , .		2
67	Fabrication of Skin-Mountable Flexible Sensor Patch for Monitoring of Swallowing Function. <i>Methods in Molecular Biology</i> , 2022, 2393, 863-876.	0.9	1
68	Fabrication of nanowire electronics on nonconventional substrates by water-assisted transfer printing method. <i>Proceedings of SPIE</i> , 2015, , .	0.8	0
69	Transient Electronics: Dry Transient Electronic Systems by Use of Materials that Sublime (<i>Adv. Funct.</i>) Tj ETQq1 1 0,784314 rgBT /Ove	14.9	0
70	(Invited) Wearable and Flexible Bio-Electronics Enabled By 'crack'-Driven Transfer Printing Methods. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
71	A Programmable Dual-Regime Spray for Large-Scale and Custom-Designed Electronic Textiles (<i>Adv. Mater.</i>) Tj ETQq1 1 0,784314 rg	21.0	0
72	Buckled scalable intracellular bioprobes. <i>Nature Nanotechnology</i> , 2022, 17, 222-223.	31.5	0