

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
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all docs

76
docs citations

76
times ranked

10779
citing authors

#	ARTICLE	IF	CITATIONS
1	Visibly Clear Radiative Cooling Metamaterials for Enhanced Thermal Management in Solar Cells and Windows. <i>Advanced Functional Materials</i> , 2022, 32, 2105882.	14.9	51
2	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
3	A Programmable Dual-Regime Spray for Large-Scale and Custom-Designed Electronic Textiles. <i>Advanced Materials</i> , 2022, 34, e2108021.	21.0	12
4	A Programmable Dual-Regime Spray for Large-Scale and Custom-Designed Electronic Textiles (<i>Adv. Mater.</i>)	21.0	0
5	Buckled scalable intracellular bioprobes. <i>Nature Nanotechnology</i> , 2022, 17, 222-223.	31.5	0
6	Biodegradable silicon nanoneedles for ocular drug delivery. <i>Science Advances</i> , 2022, 8, eabn1772.	10.3	31
7	Smart Electronic Textiles for Wearable Sensing and Display. <i>Biosensors</i> , 2022, 12, 222.	4.7	26
8	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
9	Electrochemically active materials and wearable biosensors for the in situ analysis of body fluids for human healthcare. <i>NPG Asia Materials</i> , 2021, 13, .	7.9	46
10	Wearable Glucose Monitoring and Implantable Drug Delivery Systems for Diabetes Management. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100194.	7.6	38
11	Replicable Quasi-Three-Dimensional Plasmonic Nanoantennas for Infrared Bandpass Filtering. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 24024-24031.	8.0	4
12	Rapid custom prototyping of soft poroelastic biosensor for simultaneous epicardial recording and imaging. <i>Nature Communications</i> , 2021, 12, 3710.	12.8	24
13	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. <i>Nature</i> , 2021, 597, 503-510.	27.8	120
14	Printing Flexible and Hybrid Electronics for Human Skin and Eye-Interfaced Health Monitoring Systems. <i>Advanced Materials</i> , 2020, 32, e1902051.	21.0	83
15	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
16	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
17	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. <i>Science Advances</i> , 2020, 6, eabb1093.	10.3	87
18	Bioresorbable, Miniaturized Porous Silicon Needles on a Flexible Water-Soluble Backing for Unobtrusive, Sustained Delivery of Chemotherapy. <i>ACS Nano</i> , 2020, 14, 7227-7236.	14.6	50

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19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	Skin-Mountable Biosensors and Therapeutics: A Review. <i>Annual Review of Biomedical Engineering</i> , 2019, 21, 299-323.	12.3	45
27	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. <i>Science</i> , 2019, 363, .	12.6	521
28	Flexible submental sensor patch with remote monitoring controls for management of oropharyngeal swallowing disorders. <i>Science Advances</i> , 2019, 5, eaay3210.	10.3	61
29	Battery-free, wireless sensors for full-body pressure and temperature mapping. <i>Science Translational Medicine</i> , 2018, 10, .	12.4	247
30	Three-Dimensional Silicon Electronic Systems Fabricated by Compressive Buckling Process. <i>ACS Nano</i> , 2018, 12, 4164-4171.	14.6	36
31	Flexible elastomer patch with vertical silicon nanoneedles for intracellular and intratissue nano-injection of biomolecules. <i>Science Advances</i> , 2018, 4, eaau6972.	10.3	39
32	Wafer-recyclable, environment-friendly transfer printing for large-scale thin-film nanoelectronics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E7236-E7244.	7.1	43
33	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
34	(Invited) Wearable and Flexible Bio-Electronics Enabled By 'crack'-Driven Transfer Printing Methods. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
35	Dry Transient Electronic Systems by Use of Materials that Sublime. <i>Advanced Functional Materials</i> , 2017, 27, 1606008.	14.9	34
36	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

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37	Effect of Al ₂ O ₃ Concentration on Density and Structure of (CaO-SiO ₂)-xAl ₂ O ₃ Slag. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 1595-1601.	2.1	16
38	Transient Electronics: Dry Transient Electronic Systems by Use of Materials that Sublime (Adv. Funct.) Tj ETQq0 0 0,rgBT /Overlock 10 Tf 14.9	14.9	0
39	Multilayer Transfer Printing for Pixelated, Multicolor Quantum Dot Light-Emitting Diodes. ACS Nano, 2016, 10, 4920-4925.	14.6	115
40	High-Performance Ultrathin BiVO ₄ Photoanode on Textured Polydimethylsiloxane Substrates for Solar Water Splitting. ACS Energy Letters, 2016, 1, 68-75.	17.4	66
41	Mechanically Reinforced Skin-Electronics with Networked Nanocomposite Elastomer. Advanced Materials, 2016, 28, 10257-10265.	21.0	108
42	Smart Assembly for Soft Bioelectronics. IEEE Potentials, 2016, 35, 9-13.	0.3	2
43	Bioresorbable silicon electronic sensors for the brain. Nature, 2016, 530, 71-76.	27.8	778
44	Epidermal Systems: Soft Core/Shell Packages for Stretchable Electronics (Adv. Funct. Mater. 24/2015). Advanced Functional Materials, 2015, 25, 3697-3697.	14.9	6
45	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. Advanced Functional Materials, 2015, 25, 5100-5106.	14.9	37
46	Soft Core/Shell Packages for Stretchable Electronics. Advanced Functional Materials, 2015, 25, 3698-3704.	14.9	116
47	High-Resolution Patterns of Quantum Dots Formed by Electrohydrodynamic Jet Printing for Light-Emitting Diodes. Nano Letters, 2015, 15, 969-973.	9.1	355
48	Optoelectronic crystal of artificial atoms in strain-textured molybdenum disulphide. Nature Communications, 2015, 6, 7381.	12.8	331
49	Soft network composite materials with deterministic and bio-inspired designs. Nature Communications, 2015, 6, 6566.	12.8	392
50	Biodegradable Elastomers and Silicon Nanomembranes/Nanoribbons for Stretchable, Transient Electronics, and Biosensors. Nano Letters, 2015, 15, 2801-2808.	9.1	281
51	Fabrication of nanowire electronics on nonconventional substrates by water-assisted transfer printing method. Proceedings of SPIE, 2015, , .	0.8	0
52	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. NPG Asia Materials, 2015, 7, e227-e227.	7.9	80
53	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. Advanced Functional Materials, 2015, 25, 1338-1343.	14.9	41
54	Solution-processed single-walled carbon nanotube field effect transistors and bootstrapped inverters for disintegratable, transient electronics. Applied Physics Letters, 2014, 105, .	3.3	51

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55	Simultaneously Efficient Light Absorption and Charge Separation in WO ₃ /BiVO ₄ Core/Shell Nanowire Photoanode for Photoelectrochemical Water Oxidation. Nano Letters, 2014, 14, 1099-1105.	9.1	652
56	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
57	Rapid and Controllable Flame Reduction of TiO ₂ Nanowires for Enhanced Solar Water-Splitting. Nano Letters, 2014, 14, 24-31.	9.1	180
58	Transfer Printing Methods for Flexible Thin Film Solar Cells: Basic Concepts and Working Principles. ACS Nano, 2014, 8, 8746-8756.	14.6	89
59	Electroassisted Transfer of Vertical Silicon Wire Arrays Using a Sacrificial Porous Silicon Layer. Nano Letters, 2013, 13, 4362-4368.	9.1	33
60	Codoping titanium dioxide nanowires with tungsten and carbon for enhanced photoelectrochemical performance. Nature Communications, 2013, 4, 1723.	12.8	249
61	Peel-and-Stick: Mechanism Study for Efficient Fabrication of Flexible/Transparent Thin-film Electronics. Scientific Reports, 2013, 3, 2917.	3.3	59
62	Peel-and-Stick: Fabricating Thin Film Solar Cell on Universal Substrates. Scientific Reports, 2012, 2, 1000.	3.3	66
63	Shrinking and Growing: Grain Boundary Density Reduction for Efficient Polysilicon Thin-Film Solar Cells. Nano Letters, 2012, 12, 6485-6491.	9.1	24
64	Fabrication of Flexible and Vertical Silicon Nanowire Electronics. Nano Letters, 2012, 12, 3339-3343.	9.1	107
65	Hybrid Si Microwire and Planar Solar Cells: Passivation and Characterization. Nano Letters, 2011, 11, 2704-2708.	9.1	151
66	Fabrication of Nanowire Electronics on Nonconventional Substrates by Water-Assisted Transfer Printing Method. Nano Letters, 2011, 11, 3435-3439.	9.1	98
67	Vertical Transfer of Uniform Silicon Nanowire Arrays via Crack Formation. Nano Letters, 2011, 11, 1300-1305.	9.1	73
68	Fabricating nanowire devices on diverse substrates by simple transfer-printing methods. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9950-9955.	7.1	123
69	Direct Growth of Nanowire Logic Gates and Photovoltaic Devices. Nano Letters, 2010, 10, 1050-1054.	9.1	29
70	Orientation-Controlled Alignment of Axially Modulated pn Silicon Nanowires. Nano Letters, 2010, 10, 5116-5122.	9.1	39
71	Probing Flow Velocity with Silicon Nanowire Sensors. Nano Letters, 2009, 9, 1984-1988.	9.1	72
72	Advanced Materials and Assembly Strategies for Wearable Biosensors: A Review. , 0, , .		2