

Jae-Sang Heo

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

2,485
citations

471061

17
h-index

344852

36
g-index

42
all docs

42
docs citations

42
times ranked

3639
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexible metal-oxide devices made by room-temperature photochemical activation of sol-gel films. <i>Nature</i> , 2012, 489, 128-132.	13.7	975
2	Recent Progress of Textile-Based Wearable Electronics: A Comprehensive Review of Materials, Devices, and Applications. <i>Small</i> , 2018, 14, 1703034.	5.2	470
3	Environment-Adaptable Artificial Visual Perception Behaviors Using a Light-Adjustable Optoelectronic Neuromorphic Device Array. <i>Advanced Materials</i> , 2019, 31, e1906433.	11.1	207
4	Highly Sensitive Textile Strain Sensors and Wireless User-Interface Devices Using All-Polymeric Conducting Fibers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10190-10197.	4.0	153
5	Challenges in Design and Fabrication of Flexible/Stretchable Carbon- and Textile-Based Wearable Sensors for Health Monitoring: A Critical Review. <i>Sensors</i> , 2020, 20, 3927.	2.1	65
6	Fully-integrated wearable pressure sensor array enabled by highly sensitive textile-based capacitive ionotronic devices. <i>Nano Energy</i> , 2021, 79, 105479.	8.2	62
7	A Behavior-Learned Cross-Responsive Sensor Matrix for Intelligent Skin Perception. <i>Advanced Materials</i> , 2020, 32, e2000969.	11.1	61
8	Water-Mediated Photochemical Treatments for Low-Temperature Passivation of Metal-Oxide Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 10403-10412.	4.0	57
9	Multi-spectral gate-triggered heterogeneous photonic neuro-transistors for power-efficient brain-inspired neuromorphic computing. <i>Nano Energy</i> , 2019, 66, 104097.	8.2	48
10	Highly sensitive textile-based strain sensors using poly(3,4-ethylenedioxythiophene):polystyrene sulfonate/silver nanowire-coated nylon threads with poly-L-lysine surface modification. <i>RSC Advances</i> , 2017, 7, 53373-53378.	1.7	47
11	Thread-Like CMOS Logic Circuits Enabled by Reel-Processed Single-Walled Carbon Nanotube Transistors via Selective Doping. <i>Advanced Materials</i> , 2017, 29, 1701822.	11.1	37
12	Paper-Based Flexible Electrode Using Chemically-Modified Graphene and Functionalized Multiwalled Carbon Nanotube Composites for Electrophysiological Signal Sensing. <i>Information (Switzerland)</i> , 2019, 10, 325.	1.7	28
13	Textile-Based Stretchable and Flexible Glove Sensor for Monitoring Upper Extremity Prosthesis Functions. <i>IEEE Sensors Journal</i> , 2020, 20, 1754-1760.	2.4	28
14	Flexible Metal Oxide Semiconductor Devices Made by Solution Methods. <i>Chemistry - A European Journal</i> , 2020, 26, 9126-9156.	1.7	28
15	Photochemically Activated Flexible Metal-Oxide Transistors and Circuits Using Low Impurity Aqueous System. <i>IEEE Electron Device Letters</i> , 2015, 36, 162-164.	2.2	23
16	Highly Efficient Photo-Induced Charge Separation Enabled by Metal-Chalcogenide Interfaces in Quantum-Dot/Metal-Oxide Hybrid Phototransistors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 16620-16629.	4.0	21
17	Highly Sensitive Textile-Based Capacitive Pressure Sensors Using PVDF-HFP/Ionic Liquid Composite Films. <i>Sensors</i> , 2021, 21, 442.	2.1	19
18	Measurement of Exciton and Trion Energies in Multistacked hBN/WS ₂ Coupled Quantum Wells for Resonant Tunneling Diodes. <i>ACS Nano</i> , 2020, 14, 16114-16121.	7.3	15

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19	1-Dimensional fiber-based field-effect transistors made by low-temperature photochemically activated sol-gel metal-oxide materials for electronic textiles. RSC Advances, 2016, 6, 18596-18600.	1.7	13
20	Optimized Activation of Solution-Processed Amorphous Oxide Semiconductors for Flexible Transparent Conductive Electrodes. Advanced Electronic Materials, 2018, 4, 1700386.	2.6	12
21	A Site-Specific Charge Carrier Control in Monolithic Integrated Amorphous Oxide Semiconductors and Circuits with Locally Induced Optical Doping Process. Advanced Functional Materials, 2019, 29, 1904770.	7.8	11
22	Suppression of Interfacial Disorders in Solution-Processed Metal Oxide Thin-Film Transistors by Mg Doping. ACS Applied Materials & Interfaces, 2019, 11, 48054-48061.	4.0	11
23	An Ultra-Flexible Solution-Processed Metal-Oxide/Carbon Nanotube Complementary Circuit Amplifier with Highly Reliable Electrical and Mechanical Stability. Advanced Electronic Materials, 2020, 6, 1900845.	2.6	11
24	Enhanced Interfacial Integrity of Amorphous Oxide Thin-Film Transistors by Elemental Diffusion of Ternary Oxide Semiconductors. ACS Applied Materials & Interfaces, 2020, 12, 57996-58004.	4.0	11
25	Photochemical Molecular Tailoring for Efficient Diffusion and Reorganization of Organic Nanocrystals for Ultra-Flexible Organic Semiconductor Arrays. Small, 2017, 13, 1602467.	5.2	10
26	Frequency-Stable Ionic-Type Hybrid Gate Dielectrics for High Mobility Solution-Processed Metal-Oxide Thin-Film Transistors. Materials, 2017, 10, 612.	1.3	9
27	Enhanced Electro-Optical Performance of Inorganic Perovskite/a-InGaZnO Phototransistors Enabled by Sn-Pb Binary Incorporation with a Selective Photonic Deactivation. ACS Applied Materials & Interfaces, 2020, 12, 58038-58048.	4.0	9
28	Highly-Sensitive Textile Pressure Sensors Enabled by Suspended-Type All Carbon Nanotube Fiber Transistor Architecture. Micromachines, 2020, 11, 1103.	1.4	9
29	Wide-Range Motion Recognition Through Insole Sensor Using Multi-Walled Carbon Nanotubes and Polydimethylsiloxane Composites. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 581-588.	3.9	7
30	High-Speed and Low-Temperature Atmospheric Photo-Annealing of Large-Area Solution-Processed IGZO Thin-Film Transistors by Using Programmable Pulsed Operation of Xenon Flash Lamp. Journal of the Korean Physical Society, 2019, 74, 1052-1058.	0.3	6
31	Stable Logic Operation of Fiber-Based Single-Walled Carbon Nanotube Transistor Circuits Toward Thread-Like CMOS Circuitry. Materials, 2018, 11, 1878.	1.3	4
32	Facile organic surfactant removal of various dimensionality nanomaterials using low-temperature photochemical treatment. RSC Advances, 2019, 9, 730-737.	1.7	4
33	Catalytic Metal-Accelerated Crystallization of High-Performance Solution-Processed Earth-Abundant Metal Oxide Semiconductors. ACS Applied Materials & Interfaces, 2020, 12, 25000-25010.	4.0	4
34	Locally Controlled Sensing Properties of Stretchable Pressure Sensors Enabled by Micro-Patterned Piezoresistive Device Architecture. Sensors, 2020, 20, 6588.	2.1	3
35	Skin-Compatible Amorphous Oxide Thin-Film-Transistors with a Stress-Released Elastic Architecture. Applied Sciences (Switzerland), 2021, 11, 5501.	1.3	3
36	Highly Sensitive Flexible/Stretchable Smart Insole Pressure Sensor with Multi-walled Carbon Nanotubes and Polydimethylsiloxane Double-layer Composites. , 2020, , .		3

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37	Conformally Gated Surface Conducting Behaviors of Single-Walled Carbon Nanotube Thin-Film-Transistors. <i>Materials</i> , 2021, 14, 3361.	1.3	1
38	WITHDRAWN: Printed Organic Single-Crystal TFTs with Bottom-contact Structure. <i>Digest of Technical Papers SID International Symposium</i> , 2012, 43, 1354-1356.	0.1	0
39	Enhanced Bias Stability of Solution-Processed Zinc-Tin-Oxide Thin Film Transistors Using Self-Assembled Monolayer as a Selective Channel Passivation. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 7056-7058.	0.9	0
40	Low-Voltage Driven Reflective-Type Flexible Display Devices with Micro-Structured Inner Reflectors and Pillar-Shaped Spacers. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 11372-11376.	0.9	0
41	Resistive Type 2D Mapping Positional Strain Sensor Array for Advanced Tactile Displays. <i>Digest of Technical Papers SID International Symposium</i> , 2018, 49, 1909-1912.	0.1	0
42	Frontispiece: Flexible Metal Oxide Semiconductor Devices Made by Solution Methods. <i>Chemistry - A European Journal</i> , 2020, 26, .	1.7	0