Sin-Hyung Lee

List of Publications by Year
in descending order

41 papers	535 citations	686830 13 h-index	713013 21 g-index
41 all docs	41 docs citations	41 times ranked	398 citing authors

#	Article	IF	Citations
1	Interfacial Triggering of Conductive Filament Growth in Organic Flexible Memristor for High Reliability and Uniformity. ACS Applied Materials & Interfaces, 2019, 11, 30108-30115.	4.0	55
2	Fluoropolymer-based organic memristor with multifunctionality for flexible neural network system. Npj Flexible Electronics, 2021, 5, .	5.1	40
3	Organic Flexible Memristor with Reduced Operating Voltage and High Stability by Interfacial Control of Conductive Filament Growth. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900044.	1.2	37
4	Reliable organic memristors for neuromorphic computing by predefining a localized ion-migration path in crosslinkable polymer. Nanoscale, 2020, 12, 22502-22510.	2.8	32
5	Introduction of Interfacial Load Polymeric Layer to Organic Flexible Memristor for Regulating Conductive Filament Growth. Advanced Electronic Materials, 2020, 6, 2000582.	2.6	28
6	Control of conductive filament growth in flexible organic memristor by polymer alignment. Organic Electronics, 2020, 87, 105927.	1.4	28
7	Effect of morphological and physicochemical properties of dielectric-organic semiconductor interfaces on photoresponse of organic phototransistors. Thin Solid Films, 2016, 619, 297-301.	0.8	22
8	Selfâ€Selective Organic Memristor by Engineered Conductive Nanofilament Diffusion for Realization of Practical Neuromorphic System. Advanced Electronic Materials, 2021, 7, 2100299.	2.6	21
9	Vertical organic light-emitting transistor showing a high current on/off ratio through dielectric encapsulation for the effective charge pathway. Journal of Applied Physics, 2017, 121, .	1.1	20
10	Realization of Biomimetic Synaptic Functions in a One-Cell Organic Resistive Switching Device Using the Diffusive Parameter of Conductive Filaments. ACS Applied Materials & Interfaces, 2020, 12, 51719-51728.	4.0	20
11	Quasi-surface emission in vertical organic light-emitting transistors with network electrode. Optics Express, 2014, 22, 14750.	1.7	18
12	Circuit-Level Exploration of Ternary Logic Using Memristors and MOSFETs. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 707-720.	3.5	18
13	Highly Sensitive Color Tunablility by Scalable Nanomorphology of a Dielectric Layer in Liquid-Permeable Metalâ€“Insulatorâ€“Metal Structure. ACS Applied Materials & Interfaces, 2018, 10, 38581-38587.	4.0	17
14	Generation of intensity-tunable structural color from helical photonic crystals for full color reflective-type display. Optics Express, 2018, 26, 13561.	1.7	13
15	High Resolution Micro-patterning of Stretchable Polymer Electrodes through Directed Wetting Localization. Scientific Reports, 2019, 9, 13066.	1.6	13
16	Concept of chiral image storage and selection based on liquid crystals by circular polarization. Optics Express, 2019, 27, 11661.	1.7	10
17	Enhanced switching ratio of solâ€“gel-processed Y₂O₃ RRAM device by suppressing oxygen vacancy formation at high annealing temperatures. Semiconductor Science and Technology, 2022, 37, 015007.	1.0	10
18	Systematic Engineering of Metal Ion Injection in Memristors for Complex Neuromorphic Computing with High Energy Efficiency. Advanced Intelligent Systems, 2022, 4, .	3.3	10

#	Article	IF	Citations
19	Organic thin-film transistors with liquid crystalline polymer insulator integrated for solution-processed organic light-emitting devices. Semiconductor Science and Technology, 2019, 34, 105012.	1.0	9
20	Solution-processed organic light-emitting diode in high-resolution line patterns by scalable wetting modification. Organic Electronics, 2019, 73, 332-336.	1.4	9
21	A Practical Implementation of the Ternary Logic Using Memristors and MOSFETs. , 2021, , .		9
22	Environmentally and Electrically Stable Solâ€“Gel-Deposited SnO₂ Thin-Film Transistors with Controlled Passivation Layer Diffusion Penetration Depth That Minimizes Mobility Degradation. ACS Applied Materials & Interfaces, 2022, 14, 10558-10565.	4.0	9
23	Combinatorial color arrays based on optical micro-resonators in monolithic architecture. Optics Express, 2014, 22, 15320.	1.7	8
24	Flexible multi-level resistive memory with high current ratio by electrical triggering into insulating layer. Organic Electronics, 2017, 51, 357-361.	1.4	8
25	Introduction of helical photonic crystal insulator in organic phototransistor for enhancing selective color absorption. Organic Electronics, 2022, 100, 106385.	1.4	8
26	Enhanced Switching Reliability of Solâ€“Gel-Processed Y2O3 RRAM Devices Based on Y2O3 Surface Roughness-Induced Local Electric Field. Materials, 2022, 15, 1943.	1.3	8
27	Flexible Sol-Gelâ€”Processed Y2O3 RRAM Devices Obtained via UV/Ozone-Assisted Photochemical Annealing Process. Materials, 2022, 15, 1899.	1.3	8
28	Effect of photoresponsive polymer gate insulators on performance of poly(4-vinylphenol)-based organic phototransistors. Semiconductor Science and Technology, 2019, 34, 075006.	1.0	6
29	Improved Negative Bias Stress Stability of Solâ€“Gel-Processed Li-Doped SnO2 Thin-Film Transistors. Electronics (Switzerland), 2021, 10, 1629.	1.8	6
30	Design of Capacitorless DRAM Based on Polycrystalline Silicon Nanotube Structure. IEEE Access, 2021, 9, 163675-163685.	2.6	6
31	Balance of surface energy difference between wetting and dewetting regions for patterning solution-processed organic light-emitting diode. Organic Electronics, 2021, 95, 106203.	1.4	5
32	Full-coloration based on metallic nanostructures through phase discontinuity in Fabry-Perot resonators. Optics Express, 2019, 27, 33098.	1.7	5
33	A Fast Weight Transfer Method for Real-Time Online Learning in RRAM-Based Neuromorphic System. IEEE Access, 2022, 10, 37030-37038.	2.6	5
34	Room-Temperature High-Detectivity Flexible Near-Infrared Photodetectors with Chalcogenide Silver Telluride Nanoparticles. ACS Omega, 2022, 7, 10262-10267.	1.6	4
35	Dependence of Bias Stress on Hydrophobicity of Gate Insulator in Solution-Processed Organic Thin-Film Transistors. Journal of Nanoscience and Nanotechnology, 2016, 16, 8618-8621.	0.9	3
36	Analysis for DC and RF Characteristics Recessed-Gate GaN MOSFET Using Stacked TiO2/Si3N4 Dual-Layer Insulator. Materials, 2022, 15, 819.	1.3	3

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37	Electrowetting-on-Dielectric Device Controlled by Embedded Undulating Electrode for Liquid Transport. Journal of Nanoscience and Nanotechnology, 2016, 16, 6455-6458.	0.9	2
38	Pâ€211: Lateâ€Newsâ€Poster: Quantum Dot Patterns in Molecularly Ordered Matrix for Emissive Displays with Wide Color Gamut. Digest of Technical Papers SID International Symposium, 2020, 51, 1779-1782.	0.1	1
39	Enhancement of Charge Injection in Organic Field-Effect Transistors Through Semiconducting Organic Buffer Layer. Journal of Nanoscience and Nanotechnology, 2021, 21, 3923-3928.	0.9	1
40	Vapor Pressure Effect on Electrical Properties of Solution-Processed Organic Field-Effect Transistors. Science of Advanced Materials, 2017, 9, 290-295.	0.1	0
41	Analysis and Optimization for Characteristics of Vertical GaN Junctionless MOSFETs Depending on Specifications of GaN Substrates. Journal of Electrical Engineering and Technology, 0, , .	1.2	0