

# Sangyoon Lee

## List of Publications by Year in descending order

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112  
papers

2,759  
citations

236925

25  
h-index

189892

50  
g-index

113  
all docs

113  
docs citations

113  
times ranked

4135  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of Comb-Structured Acceleration Sensors by Roll-to-Roll Gravure Printing. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2022, 9, 409-420.	4.9	13
2	Fabrication and Characterization of Roll-to-Roll-Coated Cantilever-Structured Touch Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 46797-46803.	8.0	12
3	Cantilever Type Acceleration Sensors Made by Roll-to-Roll Slot-Die Coating. <i>Sensors</i> , 2020, 20, 3748.	3.8	8
4	Robust multiperiod inventory model considering trade-in program and refurbishment service: Implications to emerging markets. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2020, 138, 101932.	7.4	20
5	Design of general-purpose assistive exoskeleton robot controller for upper limbs. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 3509-3519.	1.5	5
6	Fabrication and Characterization of Roll-to-Roll Printed Air-Gap Touch Sensors. <i>Polymers</i> , 2019, 11, 245.	4.5	12
7	Enhancement of the electrical performance of a printed organic thin film transistor through optimization of calendaring process. <i>Organic Electronics</i> , 2018, 54, 126-132.	2.6	7
8	Supervisory Control for a Switched Mode Hydraulic Transformer. , 2018, , .		2
9	Application of calendaring for improving the electrical characteristics of a printed top-gate, bottom-contact organic thin film transistors. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 05GC01.	1.5	5
10	Fabrication of a printed capacitive air-gap touch sensor. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 05GC04.	1.5	6
11	Bi-layered metal-oxide thin films processed at low-temperature for the encapsulation of highly stable organic photo-diode. <i>Organic Electronics</i> , 2017, 41, 259-265.	2.6	10
12	Dually crosslinkable SiO <sub>2</sub> @polysiloxane core-shell nanoparticles for flexible gate dielectric insulators. <i>RSC Advances</i> , 2017, 7, 17841-17847.	3.6	2
13	An Alternative Host Material for Long-life Blue Organic Light-Emitting Diodes Using Thermally Activated Delayed Fluorescence. <i>Advanced Science</i> , 2017, 4, 1600502.	11.2	103
14	Enhanced Performance of Thiophene-Rich Heteroacene, Dibenzothiopheno [6,5-b:6',5'-f] Thieno[3,2-b]Thiophene Thin-Film Transistor With MoO <sub>3</sub> Hole Injection Layers. <i>IEEE Electron Device Letters</i> , 2017, 38, 649-652.	3.9	6
15	Design and experiments of an upper-limb exoskeleton robot. , 2017, , .		5
16	Preparation of Cu nanoparticles with controlled particle size and distribution via reaction temperature and sonication. <i>Surface and Interface Analysis</i> , 2017, 49, 405-409.	1.8	5
17	Using an Optimized Calendaring Process with a Grey-Based Taguchi Method to Enhance the Performance of a Printed OTFT. <i>Science of Advanced Materials</i> , 2017, 10, 501-506.	0.7	5
18	Mechanically Durable and Highly Stretchable Transistors Employing Carbon Nanotube Semiconductor and Electrodes. <i>Advanced Materials</i> , 2016, 28, 4441-4448.	21.0	234

#	ARTICLE	IF	CITATIONS
19	Force Analysis and Modelling of Soft Actuators for Catheter Robots. , 2016, , .		2
20	Multi Degree-of-Freedom Hydraulic Human Power Amplifier With Rendering of Assistive Dynamics. , 2016, , .		2
21	Energy Gap between Photoluminescence and Electroluminescence as Recombination Indicator in Organic Small-Molecule Photodiodes. Journal of Physical Chemistry C, 2016, 120, 10176-10184.	3.1	11
22	Magnetic Field Effect in Organic Light-Emitting Diodes Based on Electron Donor-Acceptor Exciplex Chromophores Doped with Fluorescent Emitters. Advanced Functional Materials, 2016, 26, 6930-6937.	14.9	37
23	Narrow-Band Organic Photodiodes for High-Resolution Imaging. ACS Applied Materials & Interfaces, 2016, 8, 26143-26151.	8.0	59
24	Defect-related photoluminescence properties of as-synthesized and annealed NiO nanostructures via hydrothermal method. Thin Solid Films, 2016, 598, 33-38.	1.8	12
25	Water-head pumps provide precise and fast microfluidic pumping and switching versus syringe pumps. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	11
26	Dipolar donor-acceptor molecules in the cyanine limit for high efficiency green-light-selective organic photodiodes. Journal of Materials Chemistry C, 2016, 4, 1117-1125.	5.5	40
27	Analysis and Simulation of a Jumping Robot Actuated by Shape Memory Alloy. Advances in Intelligent Systems and Computing, 2016, , 1315-1326.	0.6	0
28	Improvement of the Performance of Printed Organic Thin Film Transistor by Calendering Process. Science of Advanced Materials, 2016, 8, 363-368.	0.7	9
29	Development of a Minimally Actuated Jumping-Rolling Robot. International Journal of Advanced Robotic Systems, 2015, 12, 45.	2.1	4
30	Passive Control of a Hydraulic Human Power Amplifier Using a Hydraulic Transformer. , 2015, , .		1
31	Low dark current inverted organic photodetectors employing MoO <sub>x</sub> /Al cathode interlayer. Organic Electronics, 2015, 24, 176-181.	2.6	21
32	Passivity Based Backstepping Control for Trajectory Tracking Using a Hydraulic Transformer. , 2015, , .		7
33	Organic-on-silicon complementary metal-oxide-semiconductor colour image sensors. Scientific Reports, 2015, 5, 7708.	3.3	94
34	Thin Films of Highly Planar Semiconductor Polymers Exhibiting Band-like Transport at Room Temperature. Journal of the American Chemical Society, 2015, 137, 7990-7993.	13.7	48
35	Optimization of calendering process using Taguchi method to improve the performance of printed capacitor. Japanese Journal of Applied Physics, 2014, 53, 05HC06.	1.5	7
36	Simulation and experiments of a four-legged robot that can locomote by crawling and jumping. , 2014, , .		1

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37	Stability enhancement of an electrically tunable colloidal photonic crystal using modified electrodes with a large electrochemical potential window. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	20
38	Structural Color Manipulation Using Tunable Photonic Crystals with Enhanced Switching Reliability. <i>Advanced Optical Materials</i> , 2014, 2, 535-541.	7.3	35
39	Lateral control system for roll-to-roll fabrication process of organic photovoltaic. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 05HC09.	1.5	7
40	Robust classification of hand posture to arm posture change using inertial measurement units. , 2014, , .		0
41	Flexible nano-hybrid inverter based on inkjet-printed organic and 2D multilayer MoS <sub>2</sub> thin film transistor. <i>Organic Electronics</i> , 2014, 15, 3038-3042.	2.6	13
42	Dynamic Characterization of Green-Sensitive Organic Photodetectors Using Nonfullerene Small Molecules: Frequency Response Based on the Molecular Structure. <i>Journal of Physical Chemistry C</i> , 2014, 118, 13424-13431.	3.1	42
43	Ionic self-assembled monolayer for low contact resistance in inkjet-printed coplanar structure organic thin-film transistors. <i>Organic Electronics</i> , 2014, 15, 2021-2026.	2.6	12
44	Classification of hand postures using forearm perimeter sensor and compensation of residual muscle volume change with sEMG. <i>International Journal of Mechatronics and Automation</i> , 2014, 4, 213.	0.2	1
45	Electrically tunable photonic crystals from long-range ordered crystalline arrays composed of copolymer colloids. <i>Journal of Materials Chemistry C</i> , 2013, 1, 5791.	5.5	35
46	Improvement of photo-induced negative bias stability of oxide thin film transistors by reducing the density of sub-gap states related to oxygen vacancies. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	23
47	Design of an shape memory alloy-actuated biomimetic mobile robot with the jumping gait. <i>International Journal of Control, Automation and Systems</i> , 2013, 11, 991-1000.	2.7	10
48	Improving the performance of hand posture classification by perimeter sensor with sEMG. , 2013, , .		2
49	A high performance green-sensitive organic photodiode comprising a bulk heterojunction of dimethyl-quinacridone and dicyanovinyl terthiophene. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2666.	5.5	40
50	Experimental demonstration of acoustic and electromagnetic metamaterials with conical dispersion. , 2013, , .		0
51	Simulation and analysis on dynamics of a minimally-actuated hybrid mobile robot. , 2013, , .		0
52	Statistical analysis on the effect of calendaring process parameters on the geometry and conductivity of printed patterns. <i>Robotics and Computer-Integrated Manufacturing</i> , 2013, 29, 424-430.	9.9	11
53	Green-Sensitive Organic Photodetectors with High Sensitivity and Spectral Selectivity Using Subphthalocyanine Derivatives. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 13089-13095.	8.0	85
54	Role of incorporated hydrogen on performance and photo-bias instability of indium gallium zinc oxide thin film transistors. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 055104.	2.8	67

#	ARTICLE	IF	CITATIONS
55	Arrayed beam steering device for advanced 3D displays. Proceedings of SPIE, 2013, , .	0.8	10
56	Low dark current small molecule organic photodetectors with selective response to green light. Applied Physics Letters, 2013, 103, 043305.	3.3	60
57	Electrically Driven Diffraction Grating Designed for Visible-Wavelength Region. IEEE Electron Device Letters, 2013, 34, 84-86.	3.9	3
58	Space-coiling metamaterials with double negativity and conical dispersion. Scientific Reports, 2013, 3, 1614.	3.3	146
59	A fast mesoscale quadruped robot using piezocomposite actuators. Robotica, 2013, 31, 89-98.	1.9	8
60	Classification of hand grasp using perimeter change of the forearm. , 2012, , .		1
61	Photoexcited charge collection spectroscopy of two-dimensional polaronic states in polymer thin-film transistors. Physical Review B, 2012, 85, .	3.2	15
62	Microscopic Origin of Universal Quasilinear Band Structures of Transparent Conducting Oxides. Physical Review Letters, 2012, 108, 196404.	7.8	24
63	Enhanced electrical stability of organic thin-film transistors with polymer semiconductor-insulator blended active layers. Applied Physics Letters, 2012, 100, 083302.	3.3	24
64	Improvement in the device performance of tin-doped indium oxide transistor by oxygen high pressure annealing at 150°C. Applied Physics Letters, 2012, 100, .	3.3	50
65	Color filters for reflective display with wide viewing angle and high reflectivity based on metal dielectric multilayer. Applied Physics Letters, 2012, 101, .	3.3	7
66	A Shape Memory Alloy-Actuated Bio-Inspired Mesoscale Jumping Robot. International Journal of Advanced Robotic Systems, 2012, 9, 91.	2.1	4
67	Full Color Tunable Photonic Crystal from Crystalline Colloidal Arrays with an Engineered Photonic Stop-Band. Advanced Materials, 2012, 24, 6438-6444.	21.0	147
68	High-performance photorefractive polymer composites based on poly(9-vinyl-3-carbazolcarboxyaldehyde diphenylhydrazone). Macromolecular Research, 2012, 20, 1118-1120.	2.4	0
69	A novel design of a robot that can jump and roll with a single actuator. , 2012, , .		8
70	An effective light-extracting microstructure for a single-sheet backlight unit for liquid crystal display. Journal of Micromechanics and Microengineering, 2012, 22, 095006.	2.6	11
71	Organic Photodiode with High Infrared Light Sensitivity Based on Tin Phthalocyanine/C <sub>60</sub> Bulk Heterojunction and Optical Interference Effect. Japanese Journal of Applied Physics, 2012, 51, 034103.	1.5	15
72	Application of a fuzzy controller for the lateral control in roll-to-roll printed electronics. International Journal of Precision Engineering and Manufacturing, 2012, 13, 1525-1532.	2.2	6

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73	Mechanical design of RiceWrist-S: A forearm-wrist exoskeleton for stroke and spinal cord injury rehabilitation. , 2012, , .		30
74	Atomic-layer-deposited ZnO thin-film transistors with various gate dielectrics. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2087-2090.	1.8	23
75	Efficient closed-form solution of inverse kinematics for a specific six-DOF arm. International Journal of Control, Automation and Systems, 2012, 10, 567-573.	2.7	18
76	Gain-Assisted Hyperbolic Metamaterials. , 2012, , .		0
77	Design and Simulation of a Jumping Robot Driven by Shape Memory Alloy and Elastic Energy. Advanced Science Letters, 2012, 8, 302-306.	0.2	0
78	Enhancement of Lateral Control via Vision System for Printed Electronics. Advanced Science Letters, 2012, 8, 153-157.	0.2	0
79	The Effect of Active-Layer Thickness and Back-Channel Conductivity on the Subthreshold Transfer Characteristics of Hf-In-Zn-O TFTs. IEEE Electron Device Letters, 2011, 32, 1077-1079.	3.9	22
80	Improvement of surface roughness and conductivity by calendaring process for printed electronics. , 2011, , .		0
81	Loss-compensated and active hyperbolic metamaterials. Optics Express, 2011, 19, 25242.	3.4	126
82	Design and simulation of a robot that can walk and jump. , 2011, , .		1
83	43.2: Mutual Capacitance Touch Screen Integrated into Thin Film Encapsulated Active-Matrix OLED. Digest of Technical Papers SID International Symposium, 2011, 42, 621-624.	0.3	6
84	Characterization of bias stress induced electrical instability in liquid-crystalline semiconducting polymer thin-film transistors. Journal of Applied Physics, 2011, 110, .	2.5	8
85	A Highly Sensitive Capacitive Touch Sensor Integrated on a Thin-Film-Encapsulated Active-Matrix OLED for Ultrathin Displays. IEEE Transactions on Electron Devices, 2011, 58, 3609-3615.	3.0	71
86	Molecular Weight-Induced Structural Transition of Liquid-Crystalline Polymer Semiconductor for High-Stability Organic Transistor. Advanced Functional Materials, 2011, 21, 4442-4447.	14.9	21
87	Microfluidic Arrays for Rapid Characterization of Organic Thin-Film Transistor Performance. Advanced Materials, 2011, 23, 1257-1261.	21.0	18
88	Organic TFTs: Microfluidic Arrays for Rapid Characterization of Organic Thin-Film Transistor Performance (Adv. Mater. 10/2011). Advanced Materials, 2011, 23, 1172-1172.	21.0	1
89	Mechanically and optically reliable folding structure with a hyperelastic material for seamless foldable displays. Applied Physics Letters, 2011, 98, .	3.3	38
90	18.4: A New Seamless Foldable OLED Display Composed of Multi Display Panels. Digest of Technical Papers SID International Symposium, 2010, 41, 257-260.	0.3	22

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91	Fuzzy control of the lateral position of web using a steering guide. , 2010, , .		1
92	Steering guide-based lateral control for roll-to-roll printed electronics. Journal of Mechanical Science and Technology, 2010, 24, 319-322.	1.5	10
93	Homogeneous Al <sub>2</sub> O <sub>3</sub> multilayer structures with reinforced mechanical stability for high-performance and high-throughput thin-film encapsulation. Scripta Materialia, 2010, 62, 447-450.	5.2	8
94	Design and implementation of an SMA-actuated jumping robot. , 2010, , .		1
95	Design of an SMA-actuated jumping robot. , 2010, , .		1
96	Nonlinear characteristics in radio frequency nanoelectromechanical resonators. New Journal of Physics, 2010, 12, 043023.	2.9	7
97	High Performance Organic Thin-Film Transistor based on Amorphous A,B-Alternating Poly(arylenevinylene) Copolymers. Macromolecules, 2010, 43, 6045-6049.	4.8	19
98	Fabrication and Evaluation of Solution-Processed Reduced Graphene Oxide Electrodes for p- and n-Channel Bottom-Contact Organic Thin-Film Transistors. ACS Nano, 2010, 4, 6343-6352.	14.6	69
99	High-Performance and Stable Transparent HfInZnO Thin-Film Transistors With a Double-Etch-Stopper Layer. IEEE Electron Device Letters, 2010, , .	3.9	6
100	Influence of Illumination on the Negative-Bias Stability of Transparent HafniumIndiumZinc Oxide Thin-Film Transistors. IEEE Electron Device Letters, 2010, 31, 440-442.	3.9	53
101	Fuzzy control of the lateral position of a moving web in roll-to-roll processes. , 2009, , .		1
102	Resonance Properties of 3C-SiC Nanoelectromechanical Resonator in Room-Temperature Magnetomotive Transduction. IEEE Electron Device Letters, 2009, 30, 1042-1044.	3.9	9
103	Development of a mesoscale self-contained bounding robot. , 2009, , .		1
104	Piezoelectrically Actuated Biomimetic Self-Contained Quadruped Bounding Robot. Journal of Bionic Engineering, 2009, 6, 29-36.	5.0	14
105	Thin-film encapsulation of top-emission organic light-emitting devices with polyurea/Al <sub>2</sub> O <sub>3</sub> hybrid multi-layers. Organic Electronics, 2009, 10, 1352-1355.	2.6	39
106	Liquid-Crystalline Semiconducting Copolymers with Intramolecular Donor-Acceptor Building Blocks for High-Stability Polymer Transistors. Journal of the American Chemical Society, 2009, 131, 6124-6132.	18.7	225
107	Spin-Coated CdS Thin Films for n-Channel Thin Film Transistors. Chemistry of Materials, 2009, 21, 604-611.	6.7	93
108	Lateral Position Control of a Moving Web in Roll-to-Roll Processes. , 2008, , .		4

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109	Two Types of Biologically-Inspired Mesoscale Quadruped Robots. , 2008, , .		0
110	A small and fast piezo-actuated legged robot. , 2007, , .		2
111	Two types of quadruped robots: Bounding and walking. , 2007, , .		0
112	Development of a biomimetic quadruped robot. Journal of Bionic Engineering, 2007, 4, 193-199.	5.0	23