

# Shin-Won Kang

## List of Publications by Year in descending order

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123  
papers

2,056  
citations

218677

26  
h-index

302126

39  
g-index

123  
all docs

123  
docs citations

123  
times ranked

2850  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interface modification using a post-treatment-free heteropolyacid for effective charge selective bilayer formation in perovskite solar cells. <i>Materials Letters</i> , 2020, 277, 128393.	2.6	2
2	Multi-level resistive write-once-read-many memory device based on CdSe/ZnS quantum dots and ZnO nanoparticles. <i>Thin Solid Films</i> , 2020, 709, 138120.	1.8	6
3	High-Performance Quantum Dot-Light-Emitting Diodes with a Polyethylenimine Ethoxylated-modified Emission layer. <i>Thin Solid Films</i> , 2020, 709, 138179.	1.8	6
4	Room-Temperature Hydrogen-Gas Sensor Based on Carbon Nanotube Yarn. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 4011-4014.	0.9	11
5	Taste sensor based on the floating gate structure of a lateral double-diffused metal-oxide semiconductor. <i>Sensors and Actuators B: Chemical</i> , 2020, 308, 127661.	7.8	10
6	H <sub>2</sub> Gas Sensor Based on Pd-Loaded Carbon Nanotube Film. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 4470-4473.	0.9	4
7	Air-stable and ultrasensitive solution-cast SWIR photodetectors utilizing modified core/shell colloidal quantum dots. <i>Nano Convergence</i> , 2020, 7, 28.	12.1	10
8	Brightness-enhanced, highly stable quantum dot light-emitting devices using butylated hydroxytoluene. <i>Organic Electronics</i> , 2019, 74, 166-171.	2.6	7
9	Uncooled Short-Wave Infrared Sensor Based on PbS Quantum Dots Using ZnO NPs. <i>Nanomaterials</i> , 2019, 9, 926.	4.1	18
10	Effect of PVP-Capped ZnO Nanoparticles with Enhanced Charge Transport on the Performance of P3HT/PCBM Polymer Solar Cells. <i>Polymers</i> , 2019, 11, 1818.	4.5	17
11	Employing PCBDPP as an Efficient Donor Polymer for High Performance Ternary Polymer Solar Cells. <i>Polymers</i> , 2019, 11, 1423.	4.5	9
12	Active Body Pressure Relief System with Time-of-Flight Optical Pressure Sensors for Pressure Ulcer Prevention. <i>Sensors</i> , 2019, 19, 3862.	3.8	16
13	pH Sensor Based on LDMOS Transistor With Floating Gate and Ring Structure. <i>IEEE Electron Device Letters</i> , 2019, 40, 447-450.	3.9	2
14	Post-treatment effects on the gas sensing performance of carbon nanotube sheets. <i>Applied Surface Science</i> , 2019, 481, 597-603.	6.1	8
15	Pyridine-based additive optimized P3HT:PC61BM nanomorphology for improved performance and stability in polymer solar cells. <i>Applied Surface Science</i> , 2019, 484, 825-834.	6.1	22
16	Al atomistic surface modulation on colloidal gradient quantum dots for high-brightness and stable light-emitting devices. <i>Scientific Reports</i> , 2019, 9, 6357.	3.3	6
17	Stable hybrid organic/inorganic multiple-read quantum-dot memory device based on a PVK/QDs solution. <i>Applied Surface Science</i> , 2019, 481, 25-32.	6.1	5
18	Fiber-Optic Biosensor to Detect pH and Glucose. <i>IEEE Sensors Journal</i> , 2018, 18, 1528-1538.	4.7	43

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19	New Structural Design of Gated Lateral Bipolar Junction Transistor for Sensor Applications. IEEE Transactions on Electron Devices, 2018, 65, 243-250.	3.0	2
20	Quantum dot light emitting diodes using size-controlled ZnO NPs. Current Applied Physics, 2018, 18, 681-685.	2.4	21
21	Fast, Highly Sensitive Interdigitated Capacitor Sensor to Detect Wide Range of Temperatures Using Graphene-Oxide-Containing Dielectric Membrane. IEEE Sensors Journal, 2018, 18, 2667-2674.	4.7	13
22	Spiral shape microfluidic channel for selective isolating of heterogenic circulating tumor cells. Biosensors and Bioelectronics, 2018, 101, 311-316.	10.1	43
23	A new optical-electrical integrated buffer layer design based on gold nanoparticles tethered thiol containing sulfonated polyaniline towards enhancement of solar cell performance. Solar Energy Materials and Solar Cells, 2018, 174, 112-123.	6.2	50
24	Multi-axis Response of a Thermal Convection-based Accelerometer. Micromachines, 2018, 9, 329.	2.9	3
25	Improving Air-Stability and Performance of Bulk Heterojunction Polymer Solar Cells Using Solvent Engineered Hole Selective Interlayer. Materials, 2018, 11, 1143.	2.9	17
26	Improving Photovoltaic Properties of P3HT:IC60BA through the Incorporation of Small Molecules. Polymers, 2018, 10, 121.	4.5	20
27	Effect of heater geometry and cavity volume on the sensitivity of a thermal convection-based tilt sensor. Japanese Journal of Applied Physics, 2018, 57, 06HJ01.	1.5	2
28	Facile and One-step Processible CdSe/ZnS Quantum Dots and Pentacene-based Nonvolatile Memory Device. Journal of Semiconductor Technology and Science, 2018, 18, 180-186.	0.4	3
29	Low concentration, multi taste detectable taste sensor using the high transconductance of a cascaded gated lateral bipolar junction transistor. Sensors and Actuators B: Chemical, 2017, 248, 917-923.	7.8	4
30	Highly sensitive and wide-dynamic-range side-polished fiber-optic taste sensor. Sensors and Actuators B: Chemical, 2017, 249, 700-707.	7.8	17
31	Functional solid additive modified PEDOT:PSS as an anode buffer layer for enhanced photovoltaic performance and stability in polymer solar cells. Scientific Reports, 2017, 7, 45079.	3.3	98
32	All-solution-processed high-brightness hybrid white quantum-dot light-emitting devices utilizing polymer modified quantum dots. Organic Electronics, 2017, 42, 393-398.	2.6	19
33	Importance of angular mismatch on anisotropic field-effect mobility in solution-processed organic thin-film transistors. AIP Advances, 2017, 7, 035319.	1.3	3
34	Selective isolation of magnetic nanoparticle-mediated heterogeneity subpopulation of circulating tumor cells using magnetic gradient based microfluidic system. Biosensors and Bioelectronics, 2017, 88, 153-158.	10.1	60
35	High-selectivity eco-friendly hydrophilic gas sensor using the functional groups of graphene oxide coated on an aluminum oxide nanostructure. , 2017, , .		1
36	Sensitivity and Frequency-Response Improvement of a Thermal Convection-Based Accelerometer. Sensors, 2017, 17, 1765.	3.8	9

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37	Easy-to-Fabricate and High-Sensitivity LSPR Type Specific Protein Detection Sensor Using AAO Nano-Pore Size Control. <i>Sensors</i> , 2017, 17, 856.	3.8	19
38	Enhancing the Photovoltaic Performance of Polymer Solar Cells by Manipulating Photoactive/Metal Interface. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 8024-8030.	0.9	10
39	Triangular Geometry Assisted Spontaneous Molecular Alignment on Patterned Layer in Solution-Processed Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , 2017, 17, 7609-7613.	0.9	0
40	Highly Sensitive and Wide-Dynamic-Range Multichannel Optical-Fiber pH Sensor Based on PWM Technique. <i>Sensors</i> , 2016, 16, 1885.	3.8	12
41	Fast, Highly-Sensitive, and Wide-Dynamic-Range Interdigitated Capacitor Glucose Biosensor Using Solvatochromic Dye-Containing Sensing Membrane. <i>Sensors</i> , 2016, 16, 265.	3.8	22
42	Low Dark-Current, High Current-Gain of PVK/ZnO Nanoparticles Composite-Based UV Photodetector by PN-Heterojunction Control. <i>Sensors</i> , 2016, 16, 74.	3.8	26
43	A High Sensitivity IDC-Electronic Tongue Using Dielectric/Sensing Membranes with Solvatochromic Dyes. <i>Sensors</i> , 2016, 16, 668.	3.8	14
44	Highly Sensitive Temperature Sensors Based on Fiber-Optic PWM and Capacitance Variation Using Thermochromic Sensing Membrane. <i>Sensors</i> , 2016, 16, 1064.	3.8	18
45	Electrostatic nanoassembly of contact interfacial layer for enhanced photovoltaic performance in polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 153, 148-163.	6.2	31
46	Low dark current and improved detectivity of hybrid ultraviolet photodetector based on carbon-quantum-dots/zinc-oxide-nanorod composites. <i>Organic Electronics</i> , 2016, 39, 250-257.	2.6	45
47	Efficient Quantum Dots Light-Emitting Devices Using Polyvinyl Pyrrolidone-Capped ZnO Nanoparticles With Enhanced Charge Transport. <i>IEEE Electron Device Letters</i> , 2016, 37, 1022-1024.	3.9	22
48	Efficient exciton generation in atomic passivated CdSe/ZnS quantum dots light-emitting devices. <i>Scientific Reports</i> , 2016, 6, 34659.	3.3	54
49	Direct electrochemistry of cytochrome c with three-dimensional nanoarchitected multicomponent composite electrode and nitrite biosensing. <i>Sensors and Actuators B: Chemical</i> , 2016, 228, 737-747.	7.8	42
50	Characterisation of ferroelectric poly(vinylidene fluoride)-trifluoroethylene film prepared by Langmuir-Blodgett deposition. <i>Micro and Nano Letters</i> , 2015, 10, 384-388.	1.3	4
51	Highly Sensitive Multi-Channel IDC Sensor Array for Low Concentration Taste Detection. <i>Sensors</i> , 2015, 15, 13201-13221.	3.8	28
52	AlGaIn/GaN High Electron Mobility Transistor-Based Biosensor for the Detection of C-Reactive Protein. <i>Sensors</i> , 2015, 15, 18416-18426.	3.8	40
53	Facile synthesis of functionalized graphene-palladium nanoparticle incorporated multicomponent TiO <sub>2</sub> composite nanofibers. <i>Materials Chemistry and Physics</i> , 2015, 154, 125-136.	4.0	27
54	Enhancement of CdSe/ZnS quantum dot-based LED by core-shell modification. <i>Journal of the Korean Physical Society</i> , 2015, 66, 82-86.	0.7	5

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55	A futuristic strategy to influence the solar cell performance using fixed and mobile dopants incorporated sulfonated polyaniline based buffer layer. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 275-290.	6.2	32
56	VOCs Detection Based on Evanescent Wave Coupling of Dye-Coated Optical Fiber. <i>IEEE Sensors Journal</i> , 2015, 15, 3021-3025.	4.7	8
57	Incorporation of Gold Nanodots Into Poly(3,4-ethylenedioxythiophene):Poly(styrene sulfonate) for an Efficient Anode Interfacial Layer for Improved Plasmonic Organic Photovoltaics. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 7092-7098.	0.9	7
58	Solution Processable CdSe/ZnS Quantum Dots Light-Emitting Diodes Using ZnO Nanocrystal as Electron Transport Layer. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 7416-7420.	0.9	15
59	Enhanced Performance of Light-Emitting Diodes by Surface Ligand Modification on Quantum Dots. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 7169-7172.	0.9	3
60	Efficient visible-light-driven photocatalytic degradation of nitrophenol by using graphene-encapsulated TiO <sub>2</sub> nanowires. <i>Journal of Hazardous Materials</i> , 2015, 283, 400-409.	12.4	80
61	Highly Sensitive Fiber-Optic Volatile Organic Compound Gas Sensor Using a Solvatochromic-Dye Containing Polymer Waveguide Based on Pulse-Width Modulation Technique. <i>Sensor Letters</i> , 2015, 13, 663-668.	0.4	6
62	Taste Sensor Based on Lipid/Polymer Membrane Using Cascoded Compatible Lateral Bipolar Transistor. <i>Sensor Letters</i> , 2015, 13, 683-686.	0.4	1
63	Response Characterization of a Fiber Optic Sensor Array with Dye-Coated Planar Waveguide for Detection of Volatile Organic Compounds. <i>Sensors</i> , 2014, 14, 11659-11671.	3.8	19
64	A High Sensitivity and Wide Dynamic Range Fiber-Optic Sensor for Low-Concentration VOC Gas Detection. <i>Sensors</i> , 2014, 14, 23321-23336.	3.8	29
65	Optimal design of organic-inorganic hybrid tandem solar cell based on a-Si:H and organic photovoltaics for high efficiency. <i>Micro and Nano Letters</i> , 2014, 9, 881-883.	1.3	11
66	Mild wetting poor solvent induced hydrogen bonding interactions for improved performance in bulk heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 2174-2186.	10.3	33
67	Preheated solvent exposure on P3HT:PCBM thin film: A facile strategy to enhance performance in bulk heterojunction photovoltaic cells. <i>Current Applied Physics</i> , 2014, 14, 1443-1450.	2.4	21
68	Facile Electrodeposition of Flower Like Gold Nanostructures on a Conducting Polymer Support. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 3256-3261.	0.9	7
69	Analysis of nonlinear fitting methods for distributed measurement of temperature and strain over 36 km optical fiber based on spontaneous Brillouin backscattering. <i>Optics Communications</i> , 2013, 294, 59-63.	2.1	11
70	Fabrication of Gold Nanoflower Anchored Conducting Polymer Hybrid Film Electrode by Pulse Potentiostatic Deposition. <i>IEEE Electron Device Letters</i> , 2013, 34, 1065-1067.	3.9	11
71	Fiber-optic pulse width modulation sensor for low concentration VOC gas. <i>Sensors and Actuators B: Chemical</i> , 2013, 188, 689-696.	7.8	51
72	Enhancement of the sensitivity of LSPR-based CRP immunosensors by Au nanoparticle antibody conjugation. <i>Sensors and Actuators B: Chemical</i> , 2013, 177, 376-383.	7.8	49

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73	Volatile organic compounds optical fiber gas sensor based on evanescent field coupling and solvatochromism. , 2013, , .		1
74	Room temperature VOC gas detection using a gated lateral BJT with an assembled solvatochromic dye. Sensors and Actuators B: Chemical, 2013, 187, 288-294.	7.8	13
75	Development of a surface plasmon assisted label-free calorimetric method for sensitive detection of mercury based on functionalized gold nanorods. Journal of Analytical Atomic Spectrometry, 2013, 28, 488.	3.0	25
76	Highly sensitive ion sensor based on the MOSFET-BJT hybrid mode of a gated lateral BJT. Sensors and Actuators B: Chemical, 2013, 181, 44-49.	7.8	7
77	Fiber-optic multi-sensor array for detection of low concentration volatile organic compounds. Optics Express, 2013, 21, 20119.	3.4	39
78	Performance of a Distributed Simultaneous Strain and Temperature Sensor Based on a Fabry-Perot Laser Diode and a Dual-Stage FBG Optical Demultiplexer. Sensors, 2013, 13, 15452-15464.	3.8	7
79	Enhanced Charge Transfer of QDs/Polymer Hybrid LED by Interface Controlling. IEEE Electron Device Letters, 2013, 34, 656-658.	3.9	17
80	Sensitivity Alterable Biosensor Based on Gated Lateral BJT for CRP Detection. Journal of Semiconductor Technology and Science, 2013, 13, 1-7.	0.4	6
81	Gated lateral BJT gas sensor for toluene gas detection under room temperature condition. , 2012, , .		0
82	Effect of Gate Insulator Thickness on Characteristics of Normally-off GaN MOSFETs. , 2012, , .		0
83	Novel Biosensor Based on MOSFET-BJT Hybrid Mode of Gated Lateral Bipolar Junction Transistor for C-reactive Protein Detection. , 2012, , .		0
84	Highly Efficient White Light-Emitting Diodes Based on Quantum Dots and Polymer Interface. IEEE Photonics Technology Letters, 2012, 24, 1594-1596.	2.5	22
85	Enhancement of Active Layer Characteristics with Solvent Spray Annealing Treatment for Organic Solar Cell. Japanese Journal of Applied Physics, 2012, 51, 088003.	1.5	6
86	Nanoporous aluminum anodic oxide-based optical biosensor for real-time detection of Troponin T. , 2011, , .		2
87	Highly sensitive nano-porous lattice biosensor based on localized surface plasmon resonance and interference. Optics Express, 2011, 19, 22882.	3.4	65
88	69.3: Spontaneously Formed Dual Groove Structure for Control of Azimuthal Anchoring and Pretilt in Liquid Crystal Alignment. Digest of Technical Papers SID International Symposium, 2011, 42, 1019-1021.	0.3	1
89	Nondestructive defect inspection for LCDs using optical coherence tomography. Displays, 2011, 32, 325-329.	3.7	53
90	MOSFET-BJT hybrid mode of the gated lateral bipolar junction transistor for C-reactive protein detection. Biosensors and Bioelectronics, 2011, 28, 434-437.	10.1	23

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91	High-efficiency technique based on dielectrophoresis for assembling metal, semiconductor, and polymer nanorods. Journal of Zhejiang University: Science A, 2011, 12, 368-373.	2.4	0
92	Passivation films with SU-8 polymers for organic solar cell protection from ultraviolet ray. Solar Energy Materials and Solar Cells, 2011, 95, 1238-1242.	6.2	12
93	Threshold voltage changed by floating gate control in electrolyte-insulator-semiconductor structure. , 2011, , .		0
94	Improvement of Electroluminescence Properties in Polymer Light Emitting Devices by Post-Thermal Process. Molecular Crystals and Liquid Crystals, 2011, 543, 169/[935]-176/[942].	0.9	0
95	Side-Polished Optical Fiber Odor Sensor for VOC Detection Based on Solvatochromism. Sensor Letters, 2011, 9, 87-91.	0.4	10
96	Volatile Organic Compound Gas Sensor Using a Gated Lateral Bipolar Junction Transistor. Journal of the Korean Physical Society, 2011, 59, 478-481.	0.7	6
97	Enhancement of PLED lifetime using thin film passivation with amorphous MgZnF. Journal of Information Display, 2010, 11, 8-11.	4.0	0
98	Evaluation of thin film passivation using inorganic MgZnF heterointerface for polymer light emitting diode. Thin Solid Films, 2010, 518, 4010-4014.	1.8	4
99	Enhancement of sensitivity using gold nanorodsAntibody conjugator for detection of E. coli O157:H7. Sensors and Actuators B: Chemical, 2010, 143, 784-788.	7.8	55
100	Inspection of substrate-heated modified PEDOT:PSS morphology for all spray deposited organic photovoltaics. Solar Energy Materials and Solar Cells, 2010, 94, 1303-1306.	6.2	56
101	Fabrication and performance analysis of an amorphous silicon-based thermal IR detector. , 2010, , .		1
102	Dynamic Fringe Pattern Generation Using an Electrically Tunable Liquid Crystal Fabry-Perot Cell for a Miniaturized Optical 3-D Surface Scanning Profilometer. Molecular Crystals and Liquid Crystals, 2010, 526, 28-37.	0.9	5
103	Highly efficient hybrid light-emitting device using complex of CdSe/ZnS quantum dots embedded in co-polymer as an active layer. Optics Express, 2010, 18, 18303.	3.4	25
104	Fabrication of Organic/Inorganic LED device using nanocrystal quantum dots as active layer. , 2010, , .		2
105	Optical sensing of solvents using selective tensile effects of a PDMS-coated Fiber Bragg Grating. , 2010, , .		1
106	Odor sensor for VOCs detection based on Au deposited nano-porous AAO chip. , 2009, , .		0
107	Improvement of PLED lifetime using inorganic Mg-Zn-F thin film passivation. , 2009, , .		0
108	Variable wavelength surface plasmon resonance (SPR) in biosensing. BioSystems, 2009, 98, 51-55.	2.0	13

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109	The Characteristics of $\text{H}^+$ Ion-Sensitive Transistor Driving With MOS Hybrid Mode Operation. IEEE Electron Device Letters, 2008, 29, 1138-1141.	3.9	14
110	Development of multi-layer for Au nanorod assembly. , 2008, , .		0
111	Micro-optic temperature sensor based on a Mach-Zehnder interferometer. , 2007, , .		0
112	SPR bio-sensor using white light source and OSA. , 2007, , 871-873.		1
113	The Micro-Optic Mach-Zehnder Interferometry : Application to the UV Sensors. , 2006, , .		1
114	UV-sensitive photofunctional device using evanescent field absorption between SU-8 polymer optical waveguide and photochromic dye. IEEE Photonics Technology Letters, 2006, 18, 82-84.	2.5	13
115	Refractive index change by photoinduction of a UV-sensitive SMF-to-PWG coupler. IEEE Photonics Technology Letters, 2006, 18, 220-222.	2.5	11
116	Side-polished fiber optic temperature sensor using a prism and fiber-to-planar waveguide coupler. Microwave and Optical Technology Letters, 2005, 46, 523-525.	1.4	3
117	K <sup>+</sup> -ion sensing using surface plasmon resonance by NIR light source. Sensors and Actuators B: Chemical, 2003, 96, 446-450.	7.8	19
118	Controllable in-line UV sensor using a side-polished fiber coupler with photofunctional polymer. IEEE Photonics Technology Letters, 2003, 15, 837-839.	2.5	36
119	High-sensitivity temperature sensor using a side-polished single-mode fiber covered with the polymer planar waveguide. IEEE Photonics Technology Letters, 2001, 13, 1209-1211.	2.5	80
120	Fabrication of optical filter with polarization independent properties using fiber-to-planar waveguide coupler. , 0, , .		0
121	Fiber-optic ac current sensor using metal coated intrinsic FFPI and silicon micromachining technology. , 0, , .		0
122	Development of non-invasive optical transcutaneous $\text{pCO}_2$ gas sensor and analytic equipment. , 0, , .		1
123	Light-addressable potentiometric penicillin image sensor using the self-assembled monolayer immobilizing method. , 0, , .		0