Shin-Won Kang

List of Publications by Year
in descending order

123	2,056	218677	302126
papers	citations	26 h-index	39 g-index

123	123	123	2850
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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
2	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
3	Efficient visible-light-driven photocatalytic degradation of nitrophenol by using graphene-encapsulated TiO2 nanowires. Journal of Hazardous Materials, 2015, 283, 400-409.	12.4	80
4	Highly sensitive nano-porous lattice biosensor based on localized surface plasmon resonance and interference. Optics Express, 2011, 19, 22882.	3.4	65
5	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
6	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
7	Enhancement of sensitivity using gold nanorodsâ€"Antibody conjugator for detection of E. coli O157:H7. Sensors and Actuators B: Chemical, 2010, 143, 784-788.	7.8	55
8	Efficient exciton generation in atomic passivated CdSe/ZnS quantum dots light-emitting devices. Scientific Reports, 2016, 6, 34659.	3.3	54
9	Nondestructive defect inspection for LCDs using optical coherence tomography. Displays, 2011, 32, 325-329.	3.7	53
10	Fiber-optic pulse width modulation sensor for low concentration VOC gas. Sensors and Actuators B: Chemical, 2013, 188, 689-696.	7.8	51
11	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
12	Enhancement of the sensitivity of LSPR-based CRP immunosensors by Au nanoparticle antibody conjugation. Sensors and Actuators B: Chemical, 2013, 177, 376-383.	7.8	49
13	Low dark current and improved detectivity of hybrid ultraviolet photodetector based on carbon-quantum-dots/zinc-oxide-nanorod composites. Organic Electronics, 2016, 39, 250-257.	2.6	45
14	Fiber-Optic Biosensor to Detect pH and Glucose. IEEE Sensors Journal, 2018, 18, 1528-1538.	4.7	43
15	Spiral shape microfluidic channel for selective isolating of heterogenic circulating tumor cells. Biosensors and Bioelectronics, 2018, 101, 311-316.	10.1	43
16	Direct electrochemistry of cytochrome c with three-dimensional nanoarchitectured multicomponent composite electrode and nitrite biosensing. Sensors and Actuators B: Chemical, 2016, 228, 737-747.	7.8	42
17	AlGaN/GaN High Electron Mobility Transistor-Based Biosensor for the Detection of C-Reactive Protein. Sensors, 2015, 15, 18416-18426.	3.8	40
18	Fiber-optic multi-sensor array for detection of low concentration volatile organic compounds. Optics Express, 2013, 21, 20119.	3.4	39

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19	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
20	Mild wetting poor solvent induced hydrogen bonding interactions for improved performance in bulk heterojunction solar cells. Journal of Materials Chemistry A, 2014, 2, 2174-2186.	10.3	33
21	A futuristic strategy to influence the solar cell performance using fixed and mobile dopants incorporated sulfonated polyaniline based buffer layer. Solar Energy Materials and Solar Cells, 2015, 141, 275-290.	6.2	32
22	Electrostatic nanoassembly of contact interfacial layer for enhanced photovoltaic performance in polymer solar cells. Solar Energy Materials and Solar Cells, 2016, 153, 148-163.	6.2	31
23	A High Sensitivity and Wide Dynamic Range Fiber-Optic Sensor for Low-Concentration VOC Gas Detection. Sensors, 2014, 14, 23321-23336.	3.8	29
24	Highly Sensitive Multi-Channel IDC Sensor Array for Low Concentration Taste Detection. Sensors, 2015, 15, 13201-13221.	3.8	28
25	Facile synthesis of functionalized graphene-palladium nanoparticle incorporated multicomponent TiO2 composite nanofibers. Materials Chemistry and Physics, 2015, 154, 125-136.	4.0	27
26	Low Dark-Current, High Current-Gain of PVK/ZnO Nanoparticles Composite-Based UV Photodetector by PN-Heterojunction Control. Sensors, 2016, 16, 74.	3.8	26
27	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
28	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
29	MOSFETâ€“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
30	Highly Efficient White Light-Emitting Diodes Based on Quantum Dots and Polymer Interface. IEEE Photonics Technology Letters, 2012, 24, 1594-1596.	2.5	22
31	Fast, Highly-Sensitive, and Wide-Dynamic-Range Interdigitated Capacitor Glucose Biosensor Using Solvatochromic Dye-Containing Sensing Membrane. Sensors, 2016, 16, 265.	3.8	22
32	Efficient Quantum Dots Light-Emitting Devices Using Polyvinyl Pyrrolidone-Capped ZnO Nanoparticles With Enhanced Charge Transport. IEEE Electron Device Letters, 2016, 37, 1022-1024.	3.9	22
33	Pyridine-based additive optimized P3HT:PC61BM nanomorphology for improved performance and stability in polymer solar cells. Applied Surface Science, 2019, 484, 825-834.	6.1	22
34	Preheated solvent exposure on P3HT:PCBM thin film: A facile strategy to enhance performance in bulk heterojunction photovoltaic cells. Current Applied Physics, 2014, 14, 1443-1450.	2.4	21
35	Quantum dot light emitting diodes using size-controlled ZnO NPs. Current Applied Physics, 2018, 18, 681-685.	2.4	21
36	Improving Photovoltaic Properties of P3HT:IC60BA through the Incorporation of Small Molecules. Polymers, 2018, 10, 121.	4.5	20

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37	K+-ion sensing using surface plasmon resonance by NIR light source. Sensors and Actuators B: Chemical, 2003, 96, 446-450.	7.8	19
38	Response Characterization of a Fiber Optic Sensor Array with Dye-Coated Planar Waveguide for Detection of Volatile Organic Compounds. Sensors, 2014, 14, 11659-11671.	3.8	19
39	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
40	Easy-to-Fabricate and High-Sensitivity LSPR Type Specific Protein Detection Sensor Using AAO Nano-Pore Size Control. Sensors, 2017, 17, 856.	3.8	19
41	Highly Sensitive Temperature Sensors Based on Fiber-Optic PWM and Capacitance Variation Using Thermochromic Sensing Membrane. Sensors, 2016, 16, 1064.	3.8	18
42	Uncooled Short-Wave Infrared Sensor Based on PbS Quantum Dots Using ZnO NPs. Nanomaterials, 2019, 9, 926.	4.1	18
43	Enhanced Charge Transfer of QDs/Polymer Hybrid LED by Interface Controlling. IEEE Electron Device Letters, 2013, 34, 656-658.	3.9	17
44	Highly sensitive and wide-dynamic-range side-polished fiber-optic taste sensor. Sensors and Actuators B: Chemical, 2017, 249, 700-707.	7.8	17
45	Improving Air-Stability and Performance of Bulk Heterojunction Polymer Solar Cells Using Solvent Engineered Hole Selective Interlayer. Materials, 2018, 11, 1143.	2.9	17
46	Effect of PVP-Capped ZnO Nanoparticles with Enhanced Charge Transport on the Performance of P3HT/PCBM Polymer Solar Cells. Polymers, 2019, 11, 1818.	4.5	17
47	Active Body Pressure Relief System with Time-of-Flight Optical Pressure Sensors for Pressure Ulcer Prevention. Sensors, 2019, 19, 3862.	3.8	16
48	Solution Processable CdSe/ZnS Quantum Dots Light-Emitting Diodes Using ZnO Nanocrystal as Electron Transport Layer. Journal of Nanoscience and Nanotechnology, 2015, 15, 7416-7420.	0.9	15
49	The Characteristics of $hbox{H}^{+}$ Ion-Sensitive Transistor Driving With MOS Hybrid Mode Operation. IEEE Electron Device Letters, 2008, 29, 1138-1141.	3.9	14
50	A High Sensitivity IDC-Electronic Tongue Using Dielectric/Sensing Membranes with Solvatochromic Dyes. Sensors, 2016, 16, 668.	3.8	14
51	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
52	Variable wavelength surface plasmon resonance (SPR) in biosensing. BioSystems, 2009, 98, 51-55.	2.0	13
53	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
54	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

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55	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
56	Highly Sensitive and Wide-Dynamic-Range Multichannel Optical-Fiber pH Sensor Based on PWM Technique. Sensors, 2016, 16, 1885.	3.8	12
57	Refractive index change by photoinduction of a UV-sensitive SMF-to-PWG coupler. IEEE Photonics Technology Letters, 2006, 18, 220-222.	2.5	11
58	Analysis of nonlinear fitting methods for distributed measurement of temperature and strain over 36 km optical fiber based on spontaneous Brillouin backscattering. Optics Communications, 2013, 294, 59-63.	2.1	11
59	Fabrication of Gold Nanoflower Anchored Conducting Polymer Hybrid Film Electrode by Pulse Potentiostatic Deposition. IEEE Electron Device Letters, 2013, 34, 1065-1067.	3.9	11
60	Optimal design of organicâ€“inorganic hybrid tandem solar cell based on aâ€Si:H and organic photovoltaics for high efficiency. Micro and Nano Letters, 2014, 9, 881-883.	1.3	11
61	Room-Temperature Hydrogen-Gas Sensor Based on Carbon Nanotube Yarn. Journal of Nanoscience and Nanotechnology, 2020, 20, 4011-4014.	0.9	11
62	Enhancing the Photovoltaic Performance of Polymer Solar Cells by Manipulating Photoactive/Metal Interface. Journal of Nanoscience and Nanotechnology, 2017, 17, 8024-8030.	0.9	10
63	Taste sensor based on the floating gate structure of a lateral double-diffused metal-oxide semiconductor. Sensors and Actuators B: Chemical, 2020, 308, 127661.	7.8	10
64	Side-Polished Optical Fiber Odor Sensor for VOC Detection Based on Solvatochromism. Sensor Letters, 2011, 9, 87-91.	0.4	10
65	Air-stable and ultrasensitive solution-cast SWIR photodetectors utilizing modified core/shell colloidal quantum dots. Nano Convergence, 2020, 7, 28.	12.1	10
66	Sensitivity and Frequency-Response Improvement of a Thermal Convectionâ€“Based Accelerometer. Sensors, 2017, 17, 1765.	3.8	9
67	Employing PCBTDPP as an Efficient Donor Polymer for High Performance Ternary Polymer Solar Cells. Polymers, 2019, 11, 1423.	4.5	9
68	VOCs Detection Based on Evanescent Wave Coupling of Dye-Coated Optical Fiber. IEEE Sensors Journal, 2015, 15, 3021-3025.	4.7	8
69	Post-treatment effects on the gas sensing performance of carbon nanotube sheets. Applied Surface Science, 2019, 481, 597-603.	6.1	8
70	Highly sensitive ion sensor based on the MOSFETâ€“BJT hybrid mode of a gated lateral BJT. Sensors and Actuators B: Chemical, 2013, 181, 44-49.	7.8	7
71	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
72	Facile Electrodeposition of Flower Like Gold Nanostructures on a Conducting Polymer Support. Journal of Nanoscience and Nanotechnology, 2014, 14, 3256-3261.	0.9	7

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73	Incorporation of Gold Nanodots Into Poly(3,4-ethylenedioxythiophene):Poly(styrene sulfonate) for an Efficient Anode Interfacial Layer for Improved Plasmonic Organic Photovoltaics. Journal of Nanoscience and Nanotechnology, 2015, 15, 7092-7098.	0.9	7
74	Brightness-enhanced, highly stable quantum dot light-emitting devices using butylated hydroxytoluene. Organic Electronics, 2019, 74, 166-171.	2.6	7
75	Al atomistic surface modulation on colloidal gradient quantum dots for high-brightness and stable light-emitting devices. Scientific Reports, 2019, 9, 6357.	3.3	6
76	Multi-level resistive write-once-read-many memory device based on CdSe/ZnS quantum dots and ZnO nanoparticles. Thin Solid Films, 2020, 709, 138120.	1.8	6
77	High-Performance Quantum Dot-Light-Emitting Diodes with a Polyethylenimine Ethoxylated-modified Emission layer. Thin Solid Films, 2020, 709, 138179.	1.8	6
78	Highly Sensitive Fiber-Optic Volatile Organic Compound Gas Sensor Using a Solvatochromic-Dye Containing Polymer Waveguide Based on Pulse-Width Modulation Technique. Sensor Letters, 2015, 13, 663-668.	0.4	6
79	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
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	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
82	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
83	Enhancement of CdSe/ZnS quantum dot-based LED by core-shell modification. Journal of the Korean Physical Society, 2015, 66, 82-86.	0.7	5
84	Stable hybrid organic/inorganic multiple-read quantum-dot memory device based on a PVK/QDs solution. Applied Surface Science, 2019, 481, 25-32.	6.1	5
85	Evaluation of thin film passivation using inorganic Mgâ€“Znâ€“F heterointerface for polymer light emitting diode. Thin Solid Films, 2010, 518, 4010-4014.	1.8	4
86	Characterisation of ferroelectric poly(vinylidene fluorideâ€“trifluoroethylene) film prepared by Langmuirâ€Blodgett deposition. Micro and Nano Letters, 2015, 10, 384-388.	1.3	4
87	Low concentration, multi taste detectable taste sensor using the high transconductance of a cascoded gated lateral bipolar junction transistor. Sensors and Actuators B: Chemical, 2017, 248, 917-923.	7.8	4
88	H₂ Gas Sensor Based on Pd-Loaded Carbon Nanotube Film. Journal of Nanoscience and Nanotechnology, 2020, 20, 4470-4473.	0.9	4
89	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
90	Enhanced Performance of Light-Emitting Diodes by Surface Ligand Modification on Quantum Dots. Journal of Nanoscience and Nanotechnology, 2015, 15, 7169-7172.	0.9	3

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91	Importance of angular mismatch on anisotropic field-effect mobility in solution-processed organic thin-film transistors. AIP Advances, 2017, 7, 035319.	1.3	3
92	Multi-axis Response of a Thermal Convection-based Accelerometer. Micromachines, 2018, 9, 329.	2.9	3
93	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
94	Fabrication of Organic/Inorganic LED device using nanocrystal quantum dots as active layer. , 2010, , .		2
95	Nanoporous aluminum anodic oxide-based optical biosensor for real-time detection of Troponin T. , 2011, , .		2
96	New Structural Design of Gated Lateral Bipolar Junction Transistor for Sensor Applications. IEEE Transactions on Electron Devices, 2018, 65, 243-250.	3.0	2
97	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
98	pH Sensor Based on LDMOS Transistor With Floating Gate and Ring Structure. IEEE Electron Device Letters, 2019, 40, 447-450.	3.9	2
99	Interface modification using a post-treatment-free heteropolyacid for effective charge selective bilayer formation in perovskite solar cells. Materials Letters, 2020, 277, 128393.	2.6	2
100	Development of non-invasive optical transcutaneous pCO/sub 2/ gas sensor and analytic equipment. , 0, , .		1
101	The Micro-Optic Mach-Zehnder Interferometry : Application to the UV Sensors. , 2006, , .		1
102	Fabrication and performance analysis of an amorphous silicon-based thermal IR detector. , 2010, , .		1
103	Optical sensing of solvents using selective tensile effects of a PDMS-coated Fiber Bragg Grating. , 2010, , .		1
104	69.3: Spontaneouslyâ€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
105	Volatile organic compounds optical fiber gas sensor based on evanescentl field coupling and solvatochromism. , 2013, , .		1
106	High-selectivity eco-friendly hydrophilic gas sensor using the functional groups of graphene oxide coated on an aluminum oxide nanostructure. , 2017, , .		1
107	Taste Sensor Based on Lipid/Polymer Membrane Using Cascoded Compatible Lateral Bipolar Transistor. Sensor Letters, 2015, 13, 683-686.	0.4	1
108	SPR bio-sensor using white light source and OSA. , 2007, , 871-873.		1

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109	Fabrication of optical filter with polarization independent properties using fiber-to-planar waveguide coupler. , 0, , .		0
110	Fiber-optic ac current sensor using metal coated intrinsic FFPI and silicon micromachining technology. , 0, , .		0
111	Light-addressable potentiometric penicillin image sensor using the self-assembled monolayer immobilizing method. , 0, , .		0
112	Micro-optic temperature sensor based on a Mach-Zehnder interferometer. , 2007, , .		0
113	Development of multi-layer for Au nanorod assembly. , 2008, , .		0
114	Odor sensor for VOCs detection based on Au deposited nano-porous AAO chip. , 2009, , .		0
115	Improvement of PLED lifetime using inorganic Mg-Zn-F thin film passivation. , 2009, , .		0
116	Enhancement of PLED lifetime using thin film passivation with amorphous Mgâ€Žnâ€F. Journal of Information Display, 2010, 11, 8-11.	4.0	0
117	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
118	Threshold voltage changed by floating gate control in electrolyte-insulator-semiconductor structure. , 2011, , .		0
119	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
120	Gated lateral BJT gas sensor for toluene gas detection under room temperature condition. , 2012, , .		0
121	Effect of Gate Insulator Thickness on Characteristics of Normally-off GaN MOSFETs. , 2012, , .		0
122	Novel Biosensor Based on MOSFET-BJT Hybrid Mode of Gated Lateral Bipolar Junction Transistor for C-reactive Protein Detection. , 2012, , .		0
123	Triangular Geometry Assisted Spontaneous Molecular Alignment on Patterned Layer in Solution-Processed Transistors. Journal of Nanoscience and Nanotechnology, 2017, 17, 7609-7613.	0.9	0