Keekeun Lee

List of Publications by Year
in descending order

76 papers	1,370 citations	331670 21 h-index	377865 34 g-index
76 all docs	76 docs citations	76 times ranked	1539 citing authors

#	Article	IF	Citations
1	Development of Highly Sensitive and Stable Surface Acoustic Waveâ€Based Hydrogen Sensor and Its Interface Electronics. Advanced Materials Technologies, 2022, 7, .	5.8	8
2	Development of a highly sensitive and portable particulate matter SAW sensor and interface electronics. Sensors and Actuators A: Physical, 2022, 343, 113641.	4.1	9
3	Photovoltaic Cell With Built-In Antenna for Internet of Things Applications. IEEE Access, 2021, 9, 107437-107445.	4.2	7
4	A Highly Sensitive and Stable rGO:MoS₂-Based Chemiresistive Humidity Sensor Directly Insertable to Transformer Insulating Oil Analyzed by Customized Electronic Sensor Interface. ACS Sensors, 2021, 6, 1012-1021.	7.8	21
5	Toward Real Time Monitoring of Wafer Temperature in Plasma Chamber Through Surface Acoustic Wave Resonator and Mu-Negative Metamaterial Antenna. IEEE Sensors Journal, 2021, 21, 19863-19871.	4.7	7
6	MEMS hydrogen gas sensor for in-situ monitoring of hydrogen gas in transformer oil. Sensors and Actuators B: Chemical, 2021, 326, 128989.	7.8	21
7	An Analysis of a Highly Sensitive and Selective Hydrogen Gas Sensor Based on a 3D Cu-Doped SnO₂ Sensing Material by Efficient Electronic Sensor Interface. ACS Sensors, 2021, 6, 4145-4155.	7.8	24
8	Deployment of Underground Wireless Sensor Network Based on Magnetic Core Antennas and Multiple Surface Acoustic Wave Sensor Modules. Journal of Electrical Engineering and Technology, 2020, 15, 2227-2237.	2.0	7
9	Development of Highly Sensitive Ethane Gas Sensor Based on 3D WO₃ Nanocone Structure Integrated with Lowâ€Powered Inâ€Plane Microheater and Temperature Sensor. Advanced Materials Technologies, 2020, 5, 2000009.	5.8	14
10	Effective Light Beam Modulation by Chirp IDT on a Suspended LiNbO3 Membrane for 3D Holographic Displays. Sensors, 2020, 20, 1218.	3.8	1
11	Fabrication of WO3 Nanocone Arrays for Highly Sensitive C2H6 Gas Sensor Integrated with Low Powered in Plane Microheater. , 2020, , .		1
12	Development of chipless and wireless underground temperature sensor system based on magnetic antennas and SAW sensor. Sensors and Actuators A: Physical, 2019, 297, 111549.	4.1	29
13	Nanohybrids of Pt-Functionalized Al₂O₃/ZnO Coreâ€“Shell Nanorods for High-Performance MEMS-Based Acetylene Gas Sensor. ACS Applied Materials & Interfaces, 2019, 11, 25891-25900.	8.0	59
14	Highly Sensitive and Long-Term Stable Hydrogen Sensor for Real-Time Tracing of Dissolved Hydrogen in Transformer-Insulating Oil. , 2019, , .		1
15	Development of highly sensitive and stable humidity sensor for real-time monitoring of dissolved moisture in transformer-insulating oil. Sensors and Actuators B: Chemical, 2019, 286, 377-385.	7.8	34
16	Fabrication of Platinum Functionalized Zinc Oxide Nanorods for High-Performance Acetylene Gas Sensor Integrated with Microheater. , 2019, , .		0
17	Development of chipless, wireless current sensor system based on giant magnetoimpedance magnetic sensor and surface acoustic wave transponder. Scientific Reports, 2018, 8, 2401.	3.3	22
18	Development of acousto-optic spatial light modulator unit for effective control of light beam intensity and diffraction angle in 3D holographic display applications. Journal of Micromechanics and Microengineering, 2018, 28, 074001.	2.6	2

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19	Development of a Room Temperature-Operable PbS QD-Based Infrared Sensor by Using Bandgap Manipulation. Journal of the Korean Physical Society, 2018, 73, 343-348.	0.7	1
20	Langmuir-Blodgett assembly of nanometric WO 3 thin film for electrochromic performance: A new way. Materials Letters, 2017, 194, 102-106.	2.6	18
21	Highly efficient current sensor built on a chip based on nanocrystalline NiFe/Cu/NiFe thin film. Journal of Industrial and Engineering Chemistry, 2017, 53, 416-424.	5.8	6
22	Highly diffractive, reversibly fast responsive gratings formulated through focused surface acoustic wave for holographic display. Journal of Materials Science: Materials in Electronics, 2017, 28, 5366-5374.	2.2	2
23	Development of acoustic-optic (AO) SLM applicable to 3D holographic dispay. , 2017, , .		1
24	Development of wireless, chipless neural stimulator by using one-port surface acoustic wave delay line and diodeâ€“capacitor interface. Japanese Journal of Applied Physics, 2017, 56, 06GN13.	1.5	2
25	Enhancing the sensitivity of three-axis detectable surface acoustic wave gyroscope by using a floating thin piezoelectric membrane. Japanese Journal of Applied Physics, 2017, 56, 06GN14.	1.5	6
26	Towards a wireless chip less smart current sensor system based on giant magnetoresistance. , 2017, , .		1
27	Wireless neural stimulator based on two-port SAW delay line and AC/DC converting interface. , 2017, , .		0
28	Current Sensor Based on Nanocrystalline NiFe/Cu/NiFe Thin Film. Procedia Engineering, 2016, 168, 675-679.	1.2	18
29	Development of chip-less and wireless neural probe functioning stimulation and reading in a single device. Microelectronic Engineering, 2016, 158, 118-125.	2.4	3
30	A multifunctional fullerene interlayer in colloidal quantum dot-based hybrid solar cells. Journal of Materials Chemistry A, 2015, 3, 10585-10591.	10.3	9
31	Gyroscopes based on surface acoustic waves. Micro and Nano Systems Letters, 2015, 3, .	3.7	26
32	Wireless neural probes based on one-port SAW delay line and neural firing-dependent varicap diode. Sensors and Actuators B: Chemical, 2015, 207, 243-253.	7.8	13
33	A stable and highly sensitive strain sensor based on a surface acoustic wave oscillator. Sensors and Actuators A: Physical, 2014, 218, 80-87.	4.1	24
34	Wireless and Simultaneous Detections of Multiple Bio-Molecules in a Single Sensor Using Love Wave Biosensor. Sensors, 2014, 14, 21660-21675.	3.8	17
35	Near-infrared-sensitive bulk heterojunction solar cells using nanostructured hybrid composites of HgTe quantum dots and a low-bandgap polymer. Solar Energy Materials and Solar Cells, 2014, 126, 163-169.	6.2	20
36	Broadband-absorbing hybrid solar cells with efficiency greater than 3% based on a bulk heterojunction of PbS quantum dots and a low-bandgap polymer. Journal of Materials Chemistry A, 2014, 2, 3978.	10.3	52

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37	Development of wireless, batteryfree gyroscope based on one-port SAW delay line and double resonant antenna. Sensors and Actuators A: Physical, 2014, 220, 270-280.	4.1	22
38	Solution-processed inverted solar cells using an inorganic bulk heterojunction of iron pyrite nanocrystals and cadmium selenide quantum dots with a polymeric hole-transport medium. Journal of Materials Chemistry A, 2014, 2, 9758.	10.3	7
39	Efficient hybrid solar cells using PbSxSe1â^'x quantum dots and nanorods for broad-range photon absorption and well-assembled charge transfer networks. Nanoscale, 2013, 5, 8202.	5.6	26
40	An ultraviolet sensor using spinâ€“coated ZnO nanoparticles based on surface acoustic waves. Microelectronic Engineering, 2013, 111, 105-109.	2.4	17
41	Development of a high sensitive pH sensor based on shear horizontal surface acoustic wave with ZnO nanoparticles. Microelectronic Engineering, 2013, 111, 154-159.	2.4	23
42	Battery-Free Love-Wave-Based Neural Probe and Its Wireless Characterizations. Japanese Journal of Applied Physics, 2013, 52, 06GK08.	1.5	2
43	Towards optimised wireless Love wave biosensor with high sensitivity. Micro and Nano Letters, 2012, 7, 1202-1205.	1.3	4
44	A novel shock and heat tolerant gyrosensor utilizing a one-port surface acoustic wave reflective delay line. Journal of Micromechanics and Microengineering, 2012, 22, 045007.	2.6	9
45	Development of novel dual-axis sensing gyroscope using surface acoustic wave. Microelectronic Engineering, 2012, 97, 259-264.	2.4	14
46	Efficiency enhancement in organic solar cells by configuring hybrid interfaces with narrow bandgap PbSSe nanocrystals. Organic Electronics, 2012, 13, 1546-1552.	2.6	19
47	Development of a high-sensitivity strain measurement system based on a SH SAW sensor. Journal of Micromechanics and Microengineering, 2012, 22, 025002.	2.6	30
48	Enhanced sensitivity of a surface acoustic wave gyroscope using a progressive wave. Journal of Micromechanics and Microengineering, 2011, 21, 075015.	2.6	21
49	Improving the Insertion Loss and Sensitivity Over Existing SAW Strain Sensor. Procedia Engineering, 2011, 25, 567-570.	1.2	2
50	Development of Novel LOVE Wave Biosensor for Simultaneous Detection of Multi-Analyte. Procedia Engineering, 2011, 25, 908-911.	1.2	2
51	Development of passive surface acoustic wave gyroscope with standing wave mode. , 2011, , .		1
52	Development of SAW based gyroscope with high shock and thermal stability. Sensors and Actuators A: Physical, 2011, 165, 8-15.	4.1	39
53	Development of SAW-based multi-gas sensor for simultaneous detection of CO2 and NO2. Sensors and Actuators B: Chemical, 2011, 154, 9-16.	7.8	90
54	Development of a Wireless, Battery-Free SAW Volatile Organic Compounds Sensor Integrated with Temperature Sensor. Sensor Letters, 2011, 9, 82-86.	0.4	5

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55	Fabrication of micro-lens array using quartz wet etching and polymer. Sensors and Actuators A: Physical, 2010, 164, 161-167.	4.1	17
56	A New Micro-rate Sensor Based on Shear Horizontal Surface Acoustic Wave Gyroscopic Effect. Japanese Journal of Applied Physics, 2010, 49, 096602.	1.5	20
57	Wirelessly Driven and Battery-Free Love Wave Biosensor Based on Dinitrophenyl Immobilization. Japanese Journal of Applied Physics, 2009, 48, 06FJ05.	1.5	6
58	The development of novel surface acoustic wave MEMS-IDT gyroscope based on standing wave mode. , 2009, , .		0
59	Enhanced Sensitivity of Novel Surface Acoustic Wave Microelectromechanical System-Interdigital Transducer Gyroscope. Japanese Journal of Applied Physics, 2009, 48, 06FK09.	1.5	29
60	The development of a wireless Love wave biosensor on 41Â° YX LiNbO₃. Smart Materials and Structures, 2009, 18, 025008.	3.5	22
61	Simultaneous and wireless measurement of CO<inf>2</inf> and NO<inf>2</inf> using a saw reflective delay line. , 2009, , .		0
62	A compact spiral stripline-loaded monopole antenna with a vertical ground plane. Microwave and Optical Technology Letters, 2008, 50, 250-252.	1.4	3
63	Enhanced Sensitivity of Wireless Chemical Sensor Based on Love Wave Mode. Japanese Journal of Applied Physics, 2008, 47, 7372.	1.5	14
64	Sensitivity Improvement of Wireless Pressure Sensor by Incorporating a Saw Reflective Delay Line. International Journal on Smart Sensing and Intelligent Systems, 2008, 1, 940-954.	0.7	18
65	Development of a New Wireless Chemical Sensor for CO<inf>2</inf> detection. , 2007, , .		2
66	A novel 440 MHz wireless SAW microsensor integrated with pressureâ€“temperature sensors and ID tag. Journal of Micromechanics and Microengineering, 2007, 17, 515-523.	2.6	52
67	A novel wireless, passive CO₂sensor incorporating a surface acoustic wave reflective delay line. Smart Materials and Structures, 2007, 16, 1382-1389.	3.5	70
68	Optimal design on SAW sensor for wireless pressure measurement based on reflective delay line. Sensors and Actuators A: Physical, 2007, 139, 2-6.	4.1	67
69	Modeling and performance evaluation of 2.4GHz SAW-based pressure sensor. , 2006, , .		1
70	Surface Acoustic Wave Based Pressure Sensor with Ground Shielding over Cavity on 41Â°YXLiNbO3. Japanese Journal of Applied Physics, 2006, 45, 5974-5980.	1.5	17
71	Optimized Surface Acoustic Wave-based Pressure Sensor Using Equivalent Circuit Model. , 2006, , .		2
72	MEMS spring probe for non-destructive wafer level chip test. Journal of Micromechanics and Microengineering, 2005, 15, 953-957.	2.6	16

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73	Biocompatible benzocyclobutene-based intracortical neural implant with surface modification. Journal of Micromechanics and Microengineering, 2005, 15, 2149-2155.	2.6	18
74	Lateral-Type Field Emission-Based Magnetic Sensor Fabricated by Electron-Beam Lithography. Journal of the Electrochemical Society, 2004, 151, H81.	2.9	2
75	Polyimide based neural implants with stiffness improvement. Sensors and Actuators B: Chemical, 2004, 102, 67-72.	7.8	92
76	Biocompatible benzocyclobutene (BCB)-based neural implants with micro-fluidic channel. Biosensors and Bioelectronics, 2004, 20, 404-407.	10.1	83