

Chia-Ming Yang

List of Publications by Year in descending order

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97
papers

1,150
citations

361413

20
h-index

434195

31
g-index

97
all docs

97
docs citations

97
times ranked

1245
citing authors

#	ARTICLE	IF	CITATIONS
1	A Systematic Study and Potential Limitations of Proton-ELISA Platform for \hat{I}^{\pm} -Synuclein Antigen Detection. <i>Chemosensors</i> , 2022, 10, 5.	3.6	2
2	Nanohollow Titanium Oxide Structures on Ti/FTO Glass Formed by Step-Bias Anodic Oxidation for Photoelectrochemical Enhancement. <i>Nanomaterials</i> , 2022, 12, 1925.	4.1	2
3	A revised manuscript submitted to sensors and actuators B: Chemical illumination modification from an LED to a laser to improve the spatial resolution of IGZO thin film light-addressable potentiometric sensors in pH detections. <i>Sensors and Actuators B: Chemical</i> , 2021, 329, 128953.	7.8	10
4	Gold Nanoframe Array Electrode for Straightforward Detection of Hydrogen Peroxide. <i>Chemosensors</i> , 2021, 9, 37.	3.6	6
5	An integrated actuating and sensing system for light-addressable potentiometric sensor (LAPS) and light-actuated AC electroosmosis (LACE) operation. <i>Biomicrofluidics</i> , 2021, 15, 024109.	2.4	3
6	A real-time mirror-LAPS mini system for dynamic chemical imaging and cell acidification monitoring. <i>Sensors and Actuators B: Chemical</i> , 2021, 341, 130003.	7.8	11
7	Laser Illumination Adjustments for Signal-to-Noise Ratio and Spatial Resolution Enhancement in Static 2D Chemical Images of NbOx/IGZO/ITO/Glass Light-Addressable Potentiometric Sensors. <i>Chemosensors</i> , 2021, 9, 313.	3.6	3
8	Characteristics of graphene grown through low power capacitive coupled radio frequency plasma enhanced chemical vapor deposition. <i>Carbon</i> , 2020, 159, 570-578.	10.3	18
9	Flexible Textile-Based Pressure Sensing System Applied in the Operating Room for Pressure Injury Monitoring of Cardiac Operation Patients. <i>Sensors</i> , 2020, 20, 4619.	3.8	11
10	Bidirectional All-Optical Synapses Based on a 2D Bi ₂ O ₂ Se/Graphene Hybrid Structure for Multifunctional Optoelectronics. <i>Advanced Functional Materials</i> , 2020, 30, 2001598.	14.9	123
11	Photoelectrochemical Detection of \hat{I}^2 -amyloid Peptides by a TiO ₂ Nanobrush Biosensor. <i>IEEE Sensors Journal</i> , 2020, 20, 6248-6255.	4.7	9
12	Thin-film light-addressable potentiometric sensor with SnOx as a photosensitive semiconductor. <i>Vacuum</i> , 2019, 168, 108809.	3.5	7
13	Annealing effect on UV-illuminated recovery in gas response of graphene-based NO ₂ sensors. <i>RSC Advances</i> , 2019, 9, 23343-23351.	3.6	30
14	A IGZO-based light-addressable potentiometric sensor on a PET substrate. , 2019, , .		2
15	The effect of operating conditions on the optically induced electrokinetic (OEK)-based manipulation of magnetic microbeads in a microfluidic system. <i>Sensors and Actuators B: Chemical</i> , 2019, 296, 126610.	7.8	6
16	Fluorographene sensing membrane in a light-addressable potentiometric sensor. <i>Ceramics International</i> , 2019, 45, 9074-9081.	4.8	7
17	Plasmonic nanomaterial structuring for SERS enhancement. <i>RSC Advances</i> , 2019, 9, 4982-4992.	3.6	19
18	Surface Modification for High Photocurrent and pH Sensitivity in a Silicon-Based Light-Addressable Potentiometric Sensor. <i>IEEE Sensors Journal</i> , 2018, 18, 2253-2259.	4.7	12

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19	A Colloidal Nanopatterning and Downscaling of a Highly Periodic Au Nanoporous EGFET Biosensor. Journal of the Electrochemical Society, 2018, 165, H3170-H3177.	2.9	20
20	Spatial resolution and 2D chemical image of light-addressable potentiometric sensor improved by inductively coupled-plasma reactive-ion etching. Sensors and Actuators B: Chemical, 2018, 258, 1295-1301.	7.8	17
21	C3A Epithelium Cells Directly Cultured on High-Dielectric Constant Material for Light-Addressable Potentiometric Sensor. Proceedings (mdpi), 2018, 2, 1021.	0.2	0
22	Magnetic Beads Actuating and Sensing by Light Addressability. Proceedings (mdpi), 2018, 2, .	0.2	0
23	A Multi-Well Thin-Si LAPS and All-in-One Readout System for Ion Activity Monitor of Epithelium Cells. Proceedings (mdpi), 2018, 2, .	0.2	0
24	Speckled ZnO Nanograss Electrochemical Sensor for <i>Staphylococcus epidermidis</i> Detection. Journal of the Electrochemical Society, 2017, 164, B205-B211.	2.9	27
25	Enhanced acetone sensing properties of monolayer graphene at room temperature by electrode spacing effect and UV illumination. Sensors and Actuators B: Chemical, 2017, 253, 77-84.	7.8	36
26	Ultraviolet illumination effect on monolayer graphene-based resistive sensor for acetone detection. Vacuum, 2017, 140, 89-95.	3.5	38
27	Scanning Spreading Resistance Microscopy for Doping Profile in Saddle-Fin Devices. IEEE Nanotechnology Magazine, 2017, 16, 999-1003.	2.0	3
28	Thin silicon light-addressable potentiometric sensor by Deep reactive-ion etching. , 2017, , .		1
29	N-Doped Graphene with Low Intrinsic Defect Densities via a Solid Source Doping Technique. Nanomaterials, 2017, 7, 302.	4.1	37
30	The Effect of Monolayer Graphene on the UV Assisted NO ₂ Sensing and Recovery at Room Temperature. Proceedings (mdpi), 2017, 1, .	0.2	5
31	Capacitive Sweat Sensor Constructed by Gui Diatomaceous Earth. Procedia Engineering, 2016, 168, 181-184.	1.2	3
32	Suppression of Row Hammer Effect by Doping Profile Modification in Saddle-Fin Array Devices for Sub-30-nm DRAM Technology. IEEE Transactions on Device and Materials Reliability, 2016, 16, 685-687.	2.0	23
33	Thickness effect of IGZO layer in light-addressable potentiometric sensor. , 2016, , .		0
34	IGZO Thin-Film Light-Addressable Potentiometric Sensor. IEEE Electron Device Letters, 2016, 37, 1481-1484.	3.9	20
35	P-I-N amorphous silicon for thin-film light-addressable potentiometric sensors. Sensors and Actuators B: Chemical, 2016, 236, 1005-1010.	7.8	17
36	Programming a nonvolatile memory-like sensor for KRAS gene sensing and signal enhancement. Biosensors and Bioelectronics, 2016, 79, 63-70.	10.1	3

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37	High photocurrent and high frequency response of light-addressable potentiometric sensor with thin Si substrate and surface roughness. , 2015, , .		0
38	P-I-N Amorphous Silicon Light-Addressable Potentiometric Sensors for High-photovoltage Chemical Image. Procedia Engineering, 2015, 120, 1015-1018.	1.2	3
39	The physical and electrical characterizations of Cr-doped BiFeO3 ferroelectric thin films for nonvolatile memory applications. Microelectronic Engineering, 2015, 138, 86-90.	2.4	19
40	Real-time 2D pH images by fast scanning light-addressable Potentiometric sensor system controlled by LabVIEW program. , 2015, , .		1
41	Analog micromirror-LAPS for chemical imaging and zoom-in application. Vacuum, 2015, 118, 161-166.	3.5	15
42	Self-assembly La-rich nanocrystals in metal-gate MIS structures for non-volatile memories. Microelectronic Engineering, 2015, 138, 27-30.	2.4	0
43	Nitrogen ratio and RTA optimization on sputtered TiN/SiO2/Si electrolyte-insulatorâ€“semiconductor structure for pH sensing characteristics. Vacuum, 2015, 118, 113-117.	3.5	3
44	Sensing and pH-imaging properties of niobium oxide prepared by rapid thermal annealing for electrolyteâ€“insulatorâ€“semiconductor structure and light-addressable potentiometric sensor. Sensors and Actuators B: Chemical, 2015, 207, 858-864.	7.8	30
45	Characterization on pH sensing performance and structural properties of gadolinium oxide post-treated by nitrogen rapid thermal annealing. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 03D113.	1.2	8
46	A high-speed, flexible-scanning chemical imaging system using a light-addressable potentiometric sensor integrated with an analog micromirror. Sensors and Actuators B: Chemical, 2014, 198, 225-232.	7.8	27
47	Hydrogen ion sensing characteristics of IGZO/Si electrode in EGFET. International Journal of Nanotechnology, 2014, 11, 15.	0.2	11
48	Extended titanium nitride gate field-effect transistor with PVC selective membrane for hydrogen and potassium ion detection. , 2014, , .		0
49	High photocurrent and operation frequency for light-addressable potentiometric sensor by thinner Si substrate. , 2014, , .		0
50	Nano-IGZO layer for EGFET in pH sensing characteristics. , 2013, , .		5
51	Ultra-high scanning speed chemical image sensor based on light addressable potentiometric sensor with analog micro-mirror. , 2013, , .		2
52	In-Line Supermapping of Storage Capacitor for Advanced Stack DRAM Reliability. IEEE Transactions on Device and Materials Reliability, 2013, 13, 66-72.	2.0	0
53	LAPS with nanoscaled and highly polarized HfO2 by CF4 plasma for NH4+ detection. Sensors and Actuators B: Chemical, 2013, 180, 71-76.	7.8	24
54	Low cost and flexible electrodes with NH3 plasma treatments in extended gate field effect transistors for urea detection. Sensors and Actuators B: Chemical, 2013, 187, 274-279.	7.8	28

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55	Detection of KRAS mutation by combination of polymerase chain reaction (PCR) and EIS sensor with new amino group functionalization. <i>Sensors and Actuators B: Chemical</i> , 2013, 186, 374-379.	7.8	10
56	Negative Bias Temperature Instability for Sputtering Modification in a TiN Diffusion Barrier of p+ Polysilicon Gate Stack in 50-nm DRAM Technology. <i>IEEE Transactions on Device and Materials Reliability</i> , 2013, 13, 81-86.	2.0	0
57	Superior Improvements in GIDL and Retention by Fluorine Implantation in Saddle-Fin Array Devices for Sub-40-nm DRAM Technology. <i>IEEE Electron Device Letters</i> , 2013, 34, 1124-1126.	3.9	8
58	Light-Immune pH Sensor with SiC-Based Electrolyte-Insulator-Semiconductor Structure. <i>Applied Physics Express</i> , 2013, 6, 127002.	2.4	7
59	Residual Clamping Force and Dynamic Random Access Memory Data Retention Improved by Gate Tungsten Etch Dechucking Condition in a Bipolar Electrostatic Chuck. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 086502.	1.5	1
60	Dependence of DRAM Device Performance on Passivation Annealing Position in Trench and Stack Structures for Manufacturing Optimization. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2012, 25, 657-663.	1.7	1
61	DRAM Data Retention and Cell Transistor Threshold Voltage Reliability Improved by Passivation Annealing Prior to the Deposition of Plasma Nitride Layer. <i>IEEE Transactions on Device and Materials Reliability</i> , 2012, 12, 406-412.	2.0	3
62	pH sensing reliability of flexible ITO/PET electrodes on EGFETs prepared by a roll-to-roll process. <i>Microelectronics Reliability</i> , 2012, 52, 1651-1654.	1.7	54
63	Immobilization of enzyme and antibody on ALD-HfO ₂ -EIS structure by NH ₃ plasma treatment. <i>Nanoscale Research Letters</i> , 2012, 7, 179.	5.7	18
64	Optimization of Urea-EnFET Based on Ta ₂ O ₅ Layer with Post Annealing. <i>Sensors</i> , 2011, 11, 4562-4571.	3.8	34
65	pH Sensing Characterization of Programmable Sm ₂ O ₃ /Si ₃ N ₄ /SiO ₂ /Si Electrolyte-Insulator-Semiconductor Sensor with Rapid Thermal Annealing. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 10PG04.	1.5	0
66	Effects of CF ₄ Plasma Treatment on pH and pNa Sensing Properties of Light-Addressable Potentiometric Sensor with a 2-nm-Thick Sensitive HfO ₂ Layer Grown by Atomic Layer Deposition. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DL06.	1.5	6
67	Reference Electrode-Insulator-Nitride-Oxide-Semiconductor Structure with Sm ₂ O ₃ Sensing Membrane for pH-Sensor Application. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DL09.	1.5	0
68	Functionalization of nanoscaled 2 nm-thick ALD-HfO ₂ layer by rapid thermal annealing and CF ₄ plasma for LAPS NH ₄ ⁺ detection. , 2011, , .		0
69	Characterization of K ⁺ and Na ⁺ -Sensitive Membrane Fabricated by CF ₄ Plasma Treatment on Hafnium Oxide Thin Films on ISFET. <i>Journal of the Electrochemical Society</i> , 2011, 158, J91.	2.9	19
70	Effects of Thickness Effect and Rapid Thermal Annealing on pH Sensing Characteristics of Thin HfO ₂ Films Formed by Atomic Layer Deposition. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 10PG03.	1.5	3
71	VERTICAL SILICON NANOWIRES WITH ATOMIC LAYER DEPOSITION WITH HfO ₂ MEMBRANE FOR pH SENSING APPLICATION. <i>Journal of Mechanics in Medicine and Biology</i> , 2011, 11, 959-966.	0.7	3
72	Highly sensitivity of potassium ion detection realized on fluorinated-HfO ₂ by fluorine implantation on EIS. , 2011, , .		0

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73	Effects of CF ₄ Plasma Treatment on pH and pNa Sensing Properties of Light-Addressable Potentiometric Sensor with a 2-nm-Thick Sensitive HfO ₂ Layer Grown by Atomic Layer Deposition. Japanese Journal of Applied Physics, 2011, 50, 04DL06.	1.5	7
74	Reference Electrode "Insulator" Nitride "Oxide" Semiconductor Structure with Sm ₂ O ₃ Sensing Membrane for pH-Sensor Application. Japanese Journal of Applied Physics, 2011, 50, 04DL09.	1.5	1
75	Effects of Thickness Effect and Rapid Thermal Annealing on pH Sensing Characteristics of Thin HfO ₂ Films Formed by Atomic Layer Deposition. Japanese Journal of Applied Physics, 2011, 50, 10PG03.	1.5	4
76	pH Sensing Characterization of Programmable Sm ₂ O ₃ /Si ₃ N ₄ /SiO ₂ /Si Electrolyte "Insulator" Semiconductor Sensor with Rapid Thermal Annealing. Japanese Journal of Applied Physics, 2011, 50, 10PG04.	1.5	3
77	Non-ideal effects improvement of SF ₆ plasma treated hafnium oxide film based on electrolyte "insulator" semiconductor structure for pH-sensor application. Microelectronics Reliability, 2010, 50, 742-746.	1.7	20
78	Hysteresis effect on traps of Si ₃ N ₄ sensing membranes for pH difference sensitivity. Microelectronics Reliability, 2010, 50, 738-741.	1.7	16
79	Body effect minimization using single layer structure for pH-ISFET applications. Sensors and Actuators B: Chemical, 2010, 143, 494-499.	7.8	30
80	Fluorine Incorporation and Thermal Treatment on Single and Stacked Si ₃ N ₄ Membranes for ISFET/REFET Application. Journal of the Electrochemical Society, 2010, 157, J8.	2.9	5
81	Light Addressable Potentiometric Sensor with Fluorine-Terminated Hafnium Oxide Layer for Sodium Detection. Japanese Journal of Applied Physics, 2010, 49, 04DL05.	1.5	10
82	Differential Light Addressable Potentiometric Sensor with Poly(vinyl chloride) and HfO ₂ Membranes for pH Sensors. Japanese Journal of Applied Physics, 2010, 49, 04DL10.	1.5	2
83	Characterization on pH Sensing and Corrosion-Resistant of HfTaO Membrane with Post RTA Treatment for Food Industry. Sensor Letters, 2010, 8, 720-724.	0.4	1
84	Sensitivity of Trapping Effect on Si ₃ N ₄ Sensing Membrane for Ion Sensitive Field Effect Transistor/Reference Field Effect Transistor Pair Application. Sensor Letters, 2010, 8, 725-729.	0.4	5
85	Sodium and potassium ion sensing properties of EIS and ISFET structures with fluorinated hafnium oxide sensing film. , 2009, , .		4
86	Sensitivity improvements of Hf _x W _y O _z sensing membranes for pK sensors based on electrolyte-insulator-semiconductor structure. , 2009, , .		0
87	Optimization of a PVC Membrane for Reference Field Effect Transistors. Sensors, 2009, 9, 2076-2087.	3.8	5
88	Single Si ₃ N ₄ layer on dual substrate for pH sensing micro sensor. , 2009, , .		0
89	New pH-sensitive TaO _x N _y membranes prepared by NH ₃ plasma surface treatment and nitrogen incorporated reactive sputtering. Sensors and Actuators B: Chemical, 2008, 130, 77-81.	7.8	18
90	Drift and Hysteresis Effects Improved by RTA Treatment on Hafnium Oxide in pH-Sensitive Applications. Journal of the Electrochemical Society, 2008, 155, J326.	2.9	38

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91	pH Sensitivity Improvement on 8 nm Thick Hafnium Oxide by Post Deposition Annealing. Electrochemical and Solid-State Letters, 2006, 9, G90.	2.2	78
92	Chemical Sensing Properties of Electrolyte/SiGe/SiO ₂ /Si Structure. Japanese Journal of Applied Physics, 2006, 45, 6192-6195.	1.5	1
93	Thickness Effects on pH Response of HfO ₂ Sensing Dielectric Improved by Rapid Thermal Annealing. Japanese Journal of Applied Physics, 2006, 45, 3807-3810.	1.5	27
94	The characterization of stacked $\hat{1}\pm$ -Si/SiGe/ $\hat{1}\pm$ -Si sensing membrane. Microelectronic Engineering, 2005, 80, 46-49.	2.4	1
95	The surface site dehydration mechanism for Si/sub 3/N/sub 4/ sensing membrane by post-baking treatment. , 2004, , .		0
96	Nitrogen effects on the sensitivity of tantalum nitride (Ta/sub x/N) for ion sensing devices. , 2004, , .		0
97	Ion sensing improvements of hafnium oxide by nitrogen incorporation. , 2004, , .		0