

Chao-Sung Lai

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241
papers

4,703
citations

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h-index

59
g-index

299
ext. papers

5,338
ext. citations

4.6
avg, IF

5.43
L-index

#	Paper	IF	Citations
241	Growth of large-area and highly crystalline MoS ₂ thin layers on insulating substrates. <i>Nano Letters</i> , 2012 , 12, 1538-44	11.5	1552
240	Fluorinated graphene as high performance dielectric materials and the applications for graphene nanoelectronics. <i>Scientific Reports</i> , 2014 , 4, 5893	4.9	114
239	Highly sensitive palladium oxide thin film extended gate FETs as pH sensor. <i>Sensors and Actuators B: Chemical</i> , 2014 , 205, 199-205	8.5	97
238	Oriented Schwann cell growth on microgrooved surfaces. <i>Biotechnology and Bioengineering</i> , 2005 , 92, 579-88	4.9	71
237	pH Sensitivity Improvement on 8 nm Thick Hafnium Oxide by Post Deposition Annealing. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G90		66
236	Study of high-k Er ₂ O ₃ thin layers as ISFET sensitive insulator surface for pH detection. <i>Sensors and Actuators B: Chemical</i> , 2009 , 138, 619-624	8.5	54
235	One-step formation of a single atomic-layer transistor by the selective fluorination of a graphene film. <i>Small</i> , 2014 , 10, 989-97	11	51
234	An integrated microfluidic cell culture system for high-throughput perfusion three-dimensional cell culture-based assays: effect of cell culture model on the results of chemosensitivity assays. <i>Lab on A Chip</i> , 2013 , 13, 1133-43	7.2	50
233	Structural properties and sensing performance of high-k Sm ₂ O ₃ membrane-based electrolyte/insulator/semiconductor for pH and urea detection. <i>Sensors and Actuators B: Chemical</i> , 2009 , 138, 221-227	8.5	50
232	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	15.6	48
231	Programmable Synaptic Metaplasticity and below Femtojoule Spiking Energy Realized in Graphene-Based Neuromorphic Memristor. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 20237-20243	8.5	48
230	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	1.2	45
229	Suppression of surface defects to achieve hysteresis-free inverted perovskite solar cells via quantum dot passivation. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 5263-5274	13	45
228	Integrating solid-state sensor and microfluidic devices for glucose, urea and creatinine detection based on enzyme-carrying alginate microbeads. <i>Biosensors and Bioelectronics</i> , 2013 , 43, 328-35	11.8	44
227	Discrimination of breast cancer by measuring prostate-specific antigen levels in women's serum. <i>Analytical Chemistry</i> , 2011 , 83, 5324-8	7.8	43
226	Facile synthesis of carbon/MoO ₃ nanocomposites as stable battery anodes. <i>Journal of Power Sources</i> , 2017 , 348, 270-280	8.9	42
225	A Self-Aligned High-Mobility Graphene Transistor: Decoupling the Channel with Fluorographene to Reduce Scattering. <i>Advanced Materials</i> , 2015 , 27, 6519-25	24	40

224	Spin-coated Au-nanohole arrays engineered by nanosphere lithography for a Staphylococcus aureus 16S rRNA electrochemical sensor. <i>Biosensors and Bioelectronics</i> , 2016 , 77, 1086-94	11.8	37
223	Formation polarity dependent improved resistive switching memory characteristics using nanoscale (1.3 nm) core-shell IrOx nano-dots. <i>Nanoscale Research Letters</i> , 2012 , 7, 194	5	36
222	The Electrical and pH-Sensitive Characteristics of Thermal Gd ₂ O ₃ /BiO ₂ -Stacked Oxide Capacitors. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G330	3.9	35
221	Bifacial Perovskite Solar Cells Featuring Semitransparent Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 32635-32642	9.5	34
220	GaN Thin Film Based Light Addressable Potentiometric Sensor for pH Sensing Application. <i>Applied Physics Express</i> , 2013 , 6, 036601	2.4	34
219	Characteristics of Gadolinium Oxide Nanocrystal Memory with Optimized Rapid Thermal Annealing. <i>Electrochemical and Solid-State Letters</i> , 2009 , 12, H202		33
218	Ultra-low-edge-defect graphene nanoribbons patterned by neutral beam. <i>Carbon</i> , 2013 , 61, 229-235	10.4	31
217	Drift and Hysteresis Effects Improved by RTA Treatment on Hafnium Oxide in pH-Sensitive Applications. <i>Journal of the Electrochemical Society</i> , 2008 , 155, J326	3.9	31
216	Solution-processable electron transport layer for efficient hybrid perovskite solar cells beyond fullerenes. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 169, 78-85	6.4	30
215	Bipolar resistive switching memory using bilayer TaOx/WOx films. <i>Solid-State Electronics</i> , 2012 , 77, 35-40	1.7	30
214	Development of high throughput microfluidic cell culture chip for perfusion 3-dimensional cell culture-based chemosensitivity assay. <i>Sensors and Actuators B: Chemical</i> , 2011 , 155, 397-407	8.5	30
213	A negative-pressure-driven microfluidic chip for the rapid detection of a bladder cancer biomarker in urine using bead-based enzyme-linked immunosorbent assay. <i>Biomicrofluidics</i> , 2013 , 7, 24103	3.2	29
212	Optimization of urea-EnFET based on Ta2O5 layer with post annealing. <i>Sensors</i> , 2011 , 11, 4562-71	3.8	29
211	Multi-analyte biosensors on a CF4 plasma treated Nb2O5-based membrane with an extended gate field effect transistor structure. <i>Sensors and Actuators B: Chemical</i> , 2014 , 194, 419-426	8.5	28
210	Enhanced acetone sensing properties of monolayer graphene at room temperature by electrode spacing effect and UV illumination. <i>Sensors and Actuators B: Chemical</i> , 2017 , 253, 77-84	8.5	27
209	Enhanced nanoscale resistive switching memory characteristics and switching mechanism using high-Ge-content Ge0.5Se0.5 solid electrolyte. <i>Nanoscale Research Letters</i> , 2012 , 7, 614	5	27
208	Structural properties and sensing performance of high-k Nd2TiO5 thin layer-based electrolyte-insulator-semiconductor for pH detection and urea biosensing. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2864-70	11.8	27
207	Total ionizing dose (TID) effects of γ-ray radiation on switching behaviors of Ag/AlO _x /Pt RRAM device. <i>Nanoscale Research Letters</i> , 2014 , 9, 452	5	26

206	Suppression of interfacial reaction for HfO ₂ on silicon by pre-CF ₄ plasma treatment. <i>Applied Physics Letters</i> , 2006 , 89, 072904	3.4	26
205	Characterization of CF ₄ -plasma fluorinated HfO ₂ gate dielectrics with TaN metal gate. <i>Applied Physics Letters</i> , 2005 , 86, 222905	3.4	26
204	Ultraviolet illumination effect on monolayer graphene-based resistive sensor for acetone detection. <i>Vacuum</i> , 2017 , 140, 89-95	3.7	25
203	Nanoparticle-Based LDI-MS Immunoassay for the Multiple Diagnosis of Viral Infections. <i>ACS Sensors</i> , 2019 , 4, 1543-1551	9.2	24
202	Au-spotted zinc oxide nano-hexagonrods structure for plasmon-photoluminescence sensor. <i>Sensors and Actuators B: Chemical</i> , 2019 , 290, 100-109	8.5	24
201	The utility of a high-throughput scanning biosensor in the detection of the pancreatic cancer marker ULBP2. <i>Biosensors and Bioelectronics</i> , 2013 , 41, 232-7	11.8	24
200	N-Doped Graphene with Low Intrinsic Defect Densities via a Solid Source Doping Technique. <i>Nanomaterials</i> , 2017 , 7,	5.4	24
199	Layered perovskite materials: key solutions for highly efficient and stable perovskite solar cells. <i>Reports on Progress in Physics</i> , 2020 , 83, 086502	14.4	23
198	Top Illuminated Hysteresis-Free Perovskite Solar Cells Incorporating Microcavity Structures on Metal Electrodes: A Combined Experimental and Theoretical Approach. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 17973-17984	9.5	23
197	LAPS with nanoscaled and highly polarized HfO ₂ by CF ₄ plasma for NH ₄ ⁺ detection. <i>Sensors and Actuators B: Chemical</i> , 2013 , 180, 71-76	8.5	23
196	Low cost and flexible electrodes with NH ₃ plasma treatments in extended gate field effect transistors for urea detection. <i>Sensors and Actuators B: Chemical</i> , 2013 , 187, 274-279	8.5	23
195	Atmospheric pressure route to epitaxial nitrogen-doped trilayer graphene on 4H-SiC (0001) substrate. <i>Applied Physics Letters</i> , 2014 , 105, 233111	3.4	23
194	Body effect minimization using single layer structure for pH-ISFET applications. <i>Sensors and Actuators B: Chemical</i> , 2010 , 143, 494-499	8.5	23
193	. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1639-1646	2.9	23
192	High-Performance HfO ₂ Gate Dielectrics Fluorinated by Postdeposition CF ₄ Plasma Treatment. <i>Journal of the Electrochemical Society</i> , 2007 , 154, H561	3.9	23
191	Speckled ZnO Nanograin Electrochemical Sensor for Staphylococcus epidermidis Detection. <i>Journal of the Electrochemical Society</i> , 2017 , 164, B205-B211	3.9	22
190	Nanostructure band engineering of gadolinium oxide nanocrystal memory by CF ₄ plasma treatment. <i>Applied Physics Letters</i> , 2010 , 97, 023513	3.4	22
189	Si-H bond breaking induced retention degradation during packaging process of 256 mbit DRAMs with negative wordline bias. <i>IEEE Transactions on Electron Devices</i> , 2005 , 52, 484-491	2.9	22

188	Impact of electrically formed interfacial layer and improved memory characteristics of IrOx/high-κ/W structures containing AlOx, GdOx, HfOx, and TaOx switching materials. <i>Nanoscale Research Letters</i> , 2013 , 8, 379	5	21
187	Ultra-low-damage radical treatment for the highly controllable oxidation of large-scale graphene sheets. <i>Carbon</i> , 2014 , 73, 244-251	10.4	21
186	A high-speed, flexible-scanning chemical imaging system using a light-addressable potentiometric sensor integrated with an analog micromirror. <i>Sensors and Actuators B: Chemical</i> , 2014 , 198, 225-232	8.5	21
185	Thickness Effects on pH Response of HfO2 Sensing Dielectric Improved by Rapid Thermal Annealing. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 3807-3810	1.4	21
184	Non-ideal effects improvement of SF6 plasma treated hafnium oxide film based on electrolyte-insulator-semiconductor structure for pH-sensor application. <i>Microelectronics Reliability</i> , 2010 , 50, 742-746	1.2	20
183	The characteristics of polysilicon oxide grown in pure N ₂ /O ₂ . <i>IEEE Transactions on Electron Devices</i> , 1996 , 43, 326-331	2.9	20
182	Characterization of gadolinium oxide thin films with CF4 plasma treatment for resistive switching memory applications. <i>Applied Surface Science</i> , 2013 , 276, 497-501	6.7	19
181	Miniaturized amorphous-silicon based chemical imaging sensor system using a mini-projector as a simplified light-addressable scanning source. <i>Sensors and Actuators B: Chemical</i> , 2014 , 190, 664-672	8.5	19
180	A Fluorographene-Based Synaptic Transistor. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900422	6.8	18
179	Fluorine effects on the dipole structures of the Al ₂ O ₃ thin films and characterization by spectroscopic ellipsometry. <i>Applied Physics Letters</i> , 2007 , 90, 172904	3.4	18
178	Growth Mechanism for Low Temperature PVD Graphene Synthesis on Copper Using Amorphous Carbon. <i>Scientific Reports</i> , 2017 , 7, 44112	4.9	17
177	A Colloidal Nanopatterning and Downscaling of a Highly Periodic Au Nanoporous EGFET Biosensor. <i>Journal of the Electrochemical Society</i> , 2018 , 165, H3170-H3177	3.9	17
176	Device Size-Dependent Improved Resistive Switching Memory Performance. <i>IEEE Nanotechnology Magazine</i> , 2014 , 13, 409-417	2.6	17
175	The Investigation of the High-κ Gd ₂ O ₃ (Gadolinium Oxide) Interdielectrics Deposited on the Polycrystalline Silicon. <i>Journal of the Electrochemical Society</i> , 2010 , 157, H915	3.9	17
174	New pH-sensitive TaOxNy membranes prepared by NH ₃ plasma surface treatment and nitrogen incorporated reactive sputtering. <i>Sensors and Actuators B: Chemical</i> , 2008 , 130, 77-81	8.5	17
173	Magnetic-composite-modified polycrystalline silicon nanowire field-effect transistor for vascular endothelial growth factor detection and cancer diagnosis. <i>Analytical Chemistry</i> , 2014 , 86, 9443-50	7.8	16
172	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	16
171	Integration of ammonia-plasma-functionalized graphene nanodiscs as charge trapping centers for nonvolatile memory applications. <i>Carbon</i> , 2017 , 113, 318-324	10.4	16

170	Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaOx interface. <i>Nanoscale Research Letters</i> , 2014 , 9, 125	5	16
169	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	3.9	16
168	Effects of Post CF ₄ Plasma Treatment on the HfO ₂ Thin Film. <i>Japanese Journal of Applied Physics</i> , 2005 , 44, 2307-2310	1.4	16
167	Plasmonic nanomaterial structuring for SERS enhancement.. <i>RSC Advances</i> , 2019 , 9, 4982-4992	3.7	15
166	UV- and NIR-Protective Semitransparent Smart Windows Based on Metal Halide Solar Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 632-637	6.1	15
165	High-Performance Multilevel Resistive Switching Gadolinium Oxide Memristors With Hydrogen Plasma Immersion Ion Implantation Treatment. <i>IEEE Electron Device Letters</i> , 2014 , 35, 452-454	4.4	15
164	Ti-doped Gd ₂ O ₃ sensing membrane for electrolyte/insulator/semiconductor pH sensor. <i>Thin Solid Films</i> , 2012 , 520, 3760-3763	2.2	15
163	A novel polybenzimidazole-modified gold electrode for the analytical determination of hydrogen peroxide. <i>Talanta</i> , 2011 , 85, 631-7	6.2	15
162	Characterization of polysilicon oxides thermally grown and deposited on the polished polysilicon films. <i>IEEE Transactions on Electron Devices</i> , 1998 , 45, 912-917	2.9	15
161	The TEOS oxide deposited on phosphorus in-situ/POCl ₃ /doped polysilicon with rapid thermal annealing in N ₂ /O ₂ . <i>IEEE Transactions on Electron Devices</i> , 1998 , 45, 1927-1933	2.9	15
160	Positive Bias Temperature Instability (PBTI) Characteristics of Contact-Etch-Stop-Layer-Induced Local-Tensile-Strained HfO ₂ nMOSFET. <i>IEEE Electron Device Letters</i> , 2008 , 29, 1340-1343	4.4	15
159	IGZO Thin-Film Light-Addressable Potentiometric Sensor. <i>IEEE Electron Device Letters</i> , 2016 , 37, 1481-1484	4.4	15
158	Analog micromirror-LAPS for chemical imaging and zoom-in application. <i>Vacuum</i> , 2015 , 118, 161-166	3.7	14
157	Hybrid aluminum and indium conducting filaments for nonpolar resistive switching of Al/AlOx/indium tin oxide flexible device. <i>Applied Physics Express</i> , 2014 , 7, 024204	2.4	14
156	Hysteresis effect on traps of Si ₃ N ₄ sensing membranes for pH difference sensitivity. <i>Microelectronics Reliability</i> , 2010 , 50, 738-741	1.2	14
155	Oxide Grown on Polycrystal Silicon by Rapid Thermal Oxidation in N ₂ /O ₂ . <i>Journal of the Electrochemical Society</i> , 2006 , 153, G128	3.9	14
154	Suppression of Row Hammer Effect by Doping Profile Modification in Saddle-Fin Array Devices for Sub-30-nm DRAM Technology. <i>IEEE Transactions on Device and Materials Reliability</i> , 2016 , 16, 685-687	1.6	14
153	Tunable Plasmonic SERS Hotspots on Au-Film Over Nanosphere by Rapid Thermal Annealing. <i>IEEE Nanotechnology Magazine</i> , 2017 , 16, 551-559	2.6	13

152	Work Function Adjustment by Nitrogen Incorporation in HfN[sub x] Gate Electrode with Post Metal Annealing. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G239		13
151	Improvements on thermal stability of graphene and top gate graphene transistors by Ar annealing. <i>Vacuum</i> , 2017 , 137, 8-13	3.7	12
150	Modulating Performance and Stability of Inorganic Lead-Free Perovskite Solar Cells via Lewis-Pair Mediation. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 32649-32657	9.5	12
149	P-I-N amorphous silicon for thin-film light-addressable potentiometric sensors. <i>Sensors and Actuators B: Chemical</i> , 2016 , 236, 1005-1010	8.5	12
148	Gadolinium-based metal oxide for nonvolatile memory applications. <i>Microelectronics Reliability</i> , 2012 , 52, 635-641	1.2	12
147	pH-Sensitive Gd[sub 2]O[sub 3]BiO[sub 2] Stacked Capacitors Prepared By Pure Water Anodic Oxidation. <i>Journal of the Electrochemical Society</i> , 2007 , 154, J150	3.9	12
146	Copper induced synthesis of graphene using amorphous carbon. <i>Microelectronics Reliability</i> , 2016 , 61, 87-90	1.2	11
145	Improvement of polysilicon oxide by growing on polished polysilicon film. <i>IEEE Electron Device Letters</i> , 1997 , 18, 270-271	4.4	11
144	. <i>IEEE Electron Device Letters</i> , 1995 , 16, 385-386	4.4	11
143	Breath Ammonia Is a Useful Biomarker Predicting Kidney Function in Chronic Kidney Disease Patients. <i>Biomedicines</i> , 2020 , 8,	4.8	11
142	Activity Monitoring with a Wrist-Worn, Accelerometer-Based Device. <i>Micromachines</i> , 2018 , 9,	3.3	11
141	Surface plasmon resonance amplified efficient polarization-selective volatile organic compounds CdSe-CdS/Ag/PMMA sensing material. <i>Sensors and Actuators B: Chemical</i> , 2020 , 309, 127760	8.5	10
140	Facile Bacterial Cellulose Nanofibrillation for the Development of a Plasmonic Paper Sensor. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 3122-3131	5.5	10
139	Impact of STI on the reliability of narrow-width pMOSFETs with advanced ALD N/O gate stack. <i>IEEE Transactions on Device and Materials Reliability</i> , 2006 , 6, 95-101	1.6	10
138	ZnO-Nanorod processed PC-SET as the light-harvesting model for plasmontronic fluorescence Sensor. <i>Sensors and Actuators B: Chemical</i> , 2020 , 307, 127597	8.5	10
137	Robust sandwiched fluorinated graphene for highly reliable flexible electronics. <i>Applied Surface Science</i> , 2020 , 499, 143839	6.7	10
136	Hydrogen ion sensing characteristics of IGZO/Si electrode in EGFET. <i>International Journal of Nanotechnology</i> , 2014 , 11, 15	1.5	9
135	Microstructural effect of gadolinium oxide nanocrystals upon annealing on electrical properties of memory devices. <i>Thin Solid Films</i> , 2012 , 520, 5579-5583	2.2	9

134	Highly Reliable Multilevel and 2-bit/cell Operation of Wrapped Select Gate (WSG) SONOS Memory. <i>IEEE Electron Device Letters</i> , 2007 , 28, 214-216	4.4	9
133	Sensing performance of fibronectin-functionalized Au-EGFET on the detection of <i>S. epidermidis</i> biofilm and 16S rRNA of infection-related bacteria in peritoneal dialysis. <i>Sensors and Actuators B: Chemical</i> , 2015 , 217, 92-99	8.5	8
132	Hybrid anion and cation ion sensors with samarium oxide sensing membrane treated by nitrogen plasma immersion ion implantation. <i>Sensors and Actuators B: Chemical</i> , 2014 , 191, 666-672	8.5	8
131	Retraction: Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaOx interface. <i>Nanoscale Research Letters</i> , 2013 , 8, 419	5	8
130	Fabrication of multianalyte CeO ₂ nanograin electrolyte/insulator/semiconductor biosensors by using CF ₄ plasma treatment. <i>Sensing and Bio-Sensing Research</i> , 2015 , 5, 71-77	3.3	8
129	Characterization on pH sensing performance and structural properties of gadolinium oxide post-treated by nitrogen rapid thermal annealing. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2014 , 32, 03D113	1.3	8
128	A highly flexible platform for nanowire sensor assembly using a combination of optically induced and conventional dielectrophoresis. <i>Optics Express</i> , 2014 , 22, 13811-24	3.3	8
127	Characteristics of gadolinium oxide resistive switching memory with Pt/Al alloy top electrode and post-metallization annealing. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 275103	3	8
126	Rapid detection of urinary polyomavirus BK by heterodyne-based surface plasmon resonance biosensor. <i>Journal of Biomedical Optics</i> , 2014 , 19, 011013	3.5	8
125	Light Addressable Potentiometric Sensor with Fluorine-Terminated Hafnium Oxide Layer for Sodium Detection. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 04DL05	1.4	8
124	The TEOS CVD oxide deposited on phosphorus in situ doped polysilicon with rapid thermal annealing. <i>IEEE Electron Device Letters</i> , 1997 , 18, 526-528	4.4	8
123	Current Transport Mechanism for HfO ₂ Gate Dielectrics with Fluorine Incorporation. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, H15		8
122	Characteristics of Fluorine Implantation for HfO ₂ Gate Dielectrics with High-Temperature Postdeposition Annealing. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 2893-2897	1.4	8
121	Nitridation of the stacked poly-Si gate to suppress the boron penetration in pMOS. <i>IEEE Electron Device Letters</i> , 1995 , 16, 248-249	4.4	8
120	Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaOx interface. <i>Nanoscale Research Letters</i> , 2013 , 8, 288	5	8
119	Surface Acoustic Wave Sensor for C-Reactive Protein Detection. <i>Sensors</i> , 2020 , 20,	3.8	8
118	Microgrooved Surface Modulates Neuron Differentiation in Human Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2016 , 1307, 281-7	1.4	7
117	Light-Immune pH Sensor with SiC-Based Electrolyte/Insulator/Semiconductor Structure. <i>Applied Physics Express</i> , 2013 , 6, 127002	2.4	7

116	Zero Dipole Formation at HfGdO/SiO ₂ Interface by Hf/Gd Dual-Sputtered Method. <i>Journal of the Electrochemical Society</i> , 2011 , 158, H502	3.9	7
115	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	1.4	7
114	Enhancement of the Au/ZnO-NA Plasmonic SERS Signal Using Principal Component Analysis as a Machine Learning Approach. <i>IEEE Photonics Journal</i> , 2020 , 12, 1-11	1.8	7
113	BiOSe-Based Memristor-Aided Logic. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15391-15398	9.5	7
112	. <i>IEEE Sensors Journal</i> , 2013 , 13, 2459-2465	4	6
111	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	8.5	6
110	Effects of bottom electrode on resistive switching of silver programmable metallization cells with Gd x O y /Al x O y solid electrolytes. <i>Vacuum</i> , 2017 , 140, 30-34	3.7	6
109	Tunable bandgap energy of fluorinated nanocrystals for flash memory applications produced by low-damage plasma treatment. <i>Nanotechnology</i> , 2012 , 23, 475201	3.4	6
108	Improved characteristics of Gd ₂ O ₃ nanocrystal memory with substrate high low junction. <i>Solid-State Electronics</i> , 2010 , 54, 1493-1496	1.7	6
107	Improvements on Interface Reliability and Capacitance Dispersion of Fluorinated ALD-Al[₂ O] ₃ Gate Dielectrics by CF ₄ Plasma Treatment. <i>Journal of the Electrochemical Society</i> , 2008 , 155, G51	3.9	6
106	Ge nanocrystal charge trapping devices fabricated by one-step oxidation on poly-SiGe. <i>Applied Surface Science</i> , 2008 , 255, 2512-2516	6.7	6
105	Electrical and Reliability Improvement in Polyoxide by Fluorine Implantation. <i>Journal of the Electrochemical Society</i> , 2007 , 154, H259	3.9	6
104	A novel trench capacitor enhancement approach by selective liquid-phase deposition. <i>IEEE Transactions on Semiconductor Manufacturing</i> , 2005 , 18, 644-648	2.6	6
103	Achieving High-Performance Perovskite Photovoltaic by Morphology Engineering of Low-Temperature Processed Zn-Doped TiO Electron Transport Layer. <i>Small</i> , 2020 , 16, e2002201	11	6
102	Flexible Textile-Based Pressure Sensing System Applied in the Operating Room for Pressure Injury Monitoring of Cardiac Operation Patients. <i>Sensors</i> , 2020 , 20,	3.8	6
101	Low-damage NH ₃ plasma treatment on SiO ₂ tunneling oxide of chemically-synthesized gold nanoparticle nonvolatile memory. <i>Current Applied Physics</i> , 2016 , 16, 605-610	2.6	5
100	The Effect of Monolayer Graphene on the UV Assisted NO ₂ Sensing and Recovery at Room Temperature. <i>Proceedings (mdpi)</i> , 2017 , 1, 461	0.3	5
99	Improvement of Uniformity of Resistive Switching Parameters by Selecting the Electroformation Polarity in IrO _x /TaO _x /WO _x /W Structure. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 04DD06	1.4	5

98	Fluorine Incorporation and Thermal Treatment on Single and Stacked Si ₃ N ₄ Membranes for ISFET/REFET Application. <i>Journal of the Electrochemical Society</i> , 2010 , 157, J8	3.9	5
97	Optimization of a PVC Membrane for Reference Field Effect Transistors. <i>Sensors</i> , 2009 , 9, 2076-87	3.8	5
96	Characterization of laser carved micro channel polycrystalline silicon solar cell. <i>Solid-State Electronics</i> , 2011 , 61, 23-28	1.7	5
95	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	1.4	5
94	Characteristics of pH sensors fabricated by using protein-mediated CdSe/ZnS quantum dots. <i>Microelectronics Reliability</i> , 2010 , 50, 747-752	1.2	5
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