

Chao-Sung Lai

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3386664/chao-sung-lai-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

241
papers

4,703
citations

29
h-index

59
g-index

299
ext. papers

5,338
ext. citations

4.6
avg, IF

5.43
L-index

#	Paper	IF	Citations
241	Few-layer fluorine-functionalized graphene hole-selective contacts for efficient inverted perovskite solar cells. <i>Chemical Engineering Journal</i> , 2022 , 430, 132831	14.7	4
240	Sensing Alzheimer's Disease Utilizing Au Electrode by Controlling Nanostructuring. <i>Chemosensors</i> , 2022 , 10, 94	4	2
239	A Systematic Study and Potential Limitations of Proton-ELISA Platform for β -Synuclein Antigen Detection. <i>Chemosensors</i> , 2022 , 10, 5	4	0
238	Assessing Plasma Levels of β -Synuclein and Neurofilament Light Chain by Different Blood Preparation Methods. <i>Frontiers in Aging Neuroscience</i> , 2021 , 13, 759182	5.3	0
237	Enhanced Plasmonic Biosensor Utilizing Paired Antibody and Label-Free FeO Nanoparticles for Highly Sensitive and Selective Detection of Parkinson's α -Synuclein in Serum. <i>Biosensors</i> , 2021 , 11,	5.9	2
236	BiOSe-Based Memristor-Aided Logic. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15391-15398	9.5	7
235	A Surface Acoustic Wave Sensor with a Microfluidic Channel for Detecting C-Reactive Protein. <i>Chemosensors</i> , 2021 , 9, 106	4	1
234	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	8.5	4
233	Preparation and Characterization of Au/NiPc/Anti-p53/BSA Electrode for Application as a p53 Antigen Sensor. <i>Chemosensors</i> , 2021 , 9, 17	4	3
232	Charge trapping with β -FeO nanoparticles accompanied by human hair towards an enriched triboelectric series and a sustainable circular bioeconomy. <i>Materials Horizons</i> , 2021 , 8, 3149-3162	14.4	2
231	Gold Nanoframe Array Electrode for Straightforward Detection of Hydrogen Peroxide. <i>Chemosensors</i> , 2021 , 9, 37	4	2
230	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	8.5	4
229	Flexible Layered-Graphene Charge Modulation for Highly Stable Triboelectric Nanogenerator. <i>Nanomaterials</i> , 2021 , 11,	5.4	5
228	Dimensionally anisotropic graphene with high mobility and a high on/off ratio in a three-terminal RRAM device. <i>Materials Chemistry Frontiers</i> , 2020 , 4, 1756-1763	7.8	4
227	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
226	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
225	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

224	Integration of fluorographene trapping medium in MoS ₂ -based nonvolatile memory device. <i>Journal of Applied Physics</i> , 2020 , 127, 245106	2.5	1
223	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
222	Effects of precursors purity on graphene quality: Synthesis and thermoelectric effect. <i>AIP Advances</i> , 2020 , 10, 045016	1.5	1
221	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
220	ZnO-Polystyrene Composite as Efficient Energy Harvest for Self-Powered Triboelectric Nanogenerator. <i>ECS Journal of Solid State Science and Technology</i> , 2020 , 9, 115019	2	4
219	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
218	Effects of fluorination of carbon film and annealing conditions on side leakage current and current breakdown time of SiO ₂ /graphene/Cu/Ti/SiO ₂ /Si specimens. <i>Vacuum</i> , 2020 , 172, 109037	3.7	
217	Graphene/fluorographene heterostructure for nano ribbon transistor channel. <i>Semiconductor Science and Technology</i> , 2020 , 35, 015005	1.8	3
216	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
215	Element Code from Pseudopotential as Efficient Descriptors for a Machine Learning Model to Explore Potential Lead-Free Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 8914-8921	6.4	4
214	Breath Ammonia Is a Useful Biomarker Predicting Kidney Function in Chronic Kidney Disease Patients. <i>Biomedicines</i> , 2020 , 8,	4.8	11
213	Surface Acoustic Wave Sensor for C-Reactive Protein Detection. <i>Sensors</i> , 2020 , 20,	3.8	8
212	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
211	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
210	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
209	Robust sandwiched fluorinated graphene for highly reliable flexible electronics. <i>Applied Surface Science</i> , 2020 , 499, 143839	6.7	10
208	Ultrasensitive Detection of Volatile Organic Compounds by a Freestanding Aligned Ag/CdSe-CdS/PMMA Texture with Double-Side UV-Ozone Treatment. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 34454-34462	9.5	4
207	Damage-Free ALD Blocking Oxide Layer on Functionalized Graphene Nanosheets as Nonvolatile Memories. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 1113-1117	2.9	1

206	Nanoparticle-Based LDI-MS Immunoassay for the Multiple Diagnosis of Viral Infections. <i>ACS Sensors</i> , 2019 , 4, 1543-1551	9.2	24
205	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
204	Plasmonic nanomaterial structuring for SERS enhancement.. <i>RSC Advances</i> , 2019 , 9, 4982-4992	3.7	15
203	A Fluorographene-Based Synaptic Transistor. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900422	6.8	18
202	Prediction of 30-Day Readmission for COPD Patients Using Accelerometer-Based Activity Monitoring. <i>Sensors</i> , 2019 , 20,	3.8	3
201	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
200	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
199	Using aligned poly(3-hexylthiophene)/poly(methyl methacrylate) blend fibers to detect volatile organic compounds. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 04FM06	1.4	3
198	RGB-Stack Light Emitting Diode Modules with Transparent Glass Circuit Board and Oil Encapsulation. <i>Materials</i> , 2018 , 11,	3.5	1
197	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
196	Programmable Synaptic Metaplasticity and below Femtojoule Spiking Energy Realized in Graphene-Based Neuromorphic Memristor. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 20237-20243	9.5	48
195	C3A Epithelium Cells Directly Cultured on High-Dielectric Constant Material for Light-Addressable Potentiometric Sensor. <i>Proceedings (mdpi)</i> , 2018 , 2, 1021	0.3	
194	A Multi-Well Thin-Si LAPS and All-in-One Readout System for Ion Activity Monitor of Epithelium Cells. <i>Proceedings (mdpi)</i> , 2018 , 2, 1020	0.3	
193	Activity Monitoring with a Wrist-Worn, Accelerometer-Based Device. <i>Micromachines</i> , 2018 , 9,	3.3	11
192	Improvements on thermal stability of graphene and top gate graphene transistors by Ar annealing. <i>Vacuum</i> , 2017 , 137, 8-13	3.7	12
191	Growth Mechanism for Low Temperature PVD Graphene Synthesis on Copper Using Amorphous Carbon. <i>Scientific Reports</i> , 2017 , 7, 44112	4.9	17
190	Facile synthesis of carbon/MoO ₃ nanocomposites as stable battery anodes. <i>Journal of Power Sources</i> , 2017 , 348, 270-280	8.9	42
189	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

188	Reprint of: Improvements on thermal stability of graphene and top gate graphene transistors by Ar annealing. <i>Vacuum</i> , 2017 , 140, 149-154	3.7	1
187	Speckled ZnO Nanoglass Electrochemical Sensor for Staphylococcus epidermidis Detection. <i>Journal of the Electrochemical Society</i> , 2017 , 164, B205-B211	3.9	22
186	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
185	Interface Modification of Bernal- and Rhombohedral-Stacked Trilayer-Graphene/Metal Electrode on Resistive Switching of Silver Electrochemical Metallization Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 37031-37040	9.5	3
184	Bifacial Perovskite Solar Cells Featuring Semitransparent Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 32635-32642	9.5	34
183	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
182	Ultraviolet illumination effect on monolayer graphene-based resistive sensor for acetone detection. <i>Vacuum</i> , 2017 , 140, 89-95	3.7	25
181	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
180	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
179	Scanning Spreading Resistance Microscopy for Doping Profile in Saddle-Fin Devices. <i>IEEE Nanotechnology Magazine</i> , 2017 , 16, 999-1003	2.6	2
178	N-Doped Graphene with Low Intrinsic Defect Densities via a Solid Source Doping Technique. <i>Nanomaterials</i> , 2017 , 7,	5.4	24
177	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
176	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
175	Copper induced synthesis of graphene using amorphous carbon. <i>Microelectronics Reliability</i> , 2016 , 61, 87-90	1.2	11
174	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
173	Programming a nonvolatile memory-like sensor for KRAS gene sensing and signal enhancement. <i>Biosensors and Bioelectronics</i> , 2016 , 79, 63-70	11.8	3
172	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
171	Microgrooved Surface Modulates Neuron Differentiation in Human Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2016 , 1307, 281-7	1.4	7

170	Output Properties of Transparent Submount Packaged FlipChip Light-Emitting Diode Modules. <i>Applied Sciences (Switzerland)</i> , 2016 , 6, 179	2.6	2
169	Capacitive Sweat Sensor Constructed by Gui Diatomaceous Earth. <i>Procedia Engineering</i> , 2016 , 168, 181-184		1
168	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
167	Design of experiments for determination of key factors for graphene synthesis on copper using amorphous carbon [A statistical approach 2016 ,		1
166	IGZO Thin-Film Light-Addressable Potentiometric Sensor. <i>IEEE Electron Device Letters</i> , 2016 , 37, 1481-1484	4.4	15
165	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
164	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
163	P-I-N Amorphous Silicon Light-Addressable Potentiometric Sensors for High-photovoltage Chemical Image. <i>Procedia Engineering</i> , 2015 , 120, 1015-1018		2
162	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
161	Real-time 2D pH images by fast scanning light-addressable Potentiometric sensor system controlled by LabVIEW program 2015 ,		1
160	Analog micromirror-LAPS for chemical imaging and zoom-in application. <i>Vacuum</i> , 2015 , 118, 161-166	3.7	14
159	Fluorinated graphene as high performance dielectric materials and the applications for graphene nanoelectronics. <i>Scientific Reports</i> , 2014 , 4, 5893	4.9	114
158	Oxygen plasma immersion ion implantation treatment to enhance data retention of tungsten nanocrystal nonvolatile memory. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2014 , 32, 02B112	2.9	1
157	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
156	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
155	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
154	Device Size-Dependent Improved Resistive Switching Memory Performance. <i>IEEE Nanotechnology Magazine</i> , 2014 , 13, 409-417	2.6	17
153	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

152	Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaO _x interface. <i>Nanoscale Research Letters</i> , 2014 , 9, 152	5	2
151	Hydrogen ion sensing characteristics of IGZO/Si electrode in EGFET. <i>International Journal of Nanotechnology</i> , 2014 , 11, 15	1.5	9
150	Retention behaviour of graphene oxide resistive switching memory. <i>International Journal of Nanotechnology</i> , 2014 , 11, 106	1.5	1
149	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
148	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
147	Hybrid aluminum and indium conducting filaments for nonpolar resistive switching of Al/AlO _x /indium tin oxide flexible device. <i>Applied Physics Express</i> , 2014 , 7, 024204	2.4	14
146	Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaO _x interface. <i>Nanoscale Research Letters</i> , 2014 , 9, 125	5	16
145	Total ionizing dose (TID) effects of γ radiation on switching behaviors of Ag/AlO _x /Pt RRAM device. <i>Nanoscale Research Letters</i> , 2014 , 9, 452	5	26
144	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
143	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
142	Multi-analyte biosensors on a CF ₄ plasma treated Nb ₂ O ₅ -based membrane with an extended gate field effect transistor structure. <i>Sensors and Actuators B: Chemical</i> , 2014 , 194, 419-426	8.5	28
141	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
140	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
139	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
138	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
137	Retention behavior of graphene oxide resistive switching memory on flexible substrate 2013 ,		1
136	Retraction: Enhanced resistive switching memory characteristics and mechanism using a Ti nanolayer at the W/TaO _x interface. <i>Nanoscale Research Letters</i> , 2013 , 8, 419	5	8
135	Impact of electrically formed interfacial layer and improved memory characteristics of IrO _x /high- κ /W structures containing AlO _x , GdO _x , HfO _x , and TaO _x switching materials. <i>Nanoscale Research Letters</i> , 2013 , 8, 379	5	21

134	Nano-IGZO layer for EGFET in pH sensing characteristics 2013 ,		4
133	Electrical probing of multi-ions solution by using graphene-based sensor 2013 ,		2
132	. <i>IEEE Sensors Journal</i> , 2013 , 13, 2459-2465	4	6
131	Ultra-high scanning speed chemical image sensor based on light addressable potentiometric sensor with analog micro-mirror 2013 ,		1
130	Systematic Root Cause Analysis for GaP Green Light LED Degradation. <i>IEEE Transactions on Device and Materials Reliability</i> , 2013 , 13, 156-160	1.6	0
129	In-Line Supermapping of Storage Capacitor for Advanced Stack DRAM Reliability. <i>IEEE Transactions on Device and Materials Reliability</i> , 2013 , 13, 66-72	1.6	
128	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
127	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
126	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
125	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
124	Characterization of gadolinium oxide thin films with CF ₄ plasma treatment for resistive switching memory applications. <i>Applied Surface Science</i> , 2013 , 276, 497-501	6.7	19
123	The impact of interface/border defect on performance and reliability of high-k/metal-gate CMOSFET. <i>Microelectronics Reliability</i> , 2013 , 53, 265-269	1.2	2
122	Ultra-low-edge-defect graphene nanoribbons patterned by neutral beam. <i>Carbon</i> , 2013 , 61, 229-235	10.4	31
121	. <i>IEEE Transactions on Device and Materials Reliability</i> , 2013 , 13, 81-86	1.6	
120	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
119	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
118	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	4.4	4
117	Characteristics of gadolinium oxide resistive switching memory with Pt ₁ Al alloy top electrode and post-metallization annealing. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 275103	3	8

116	Hybrid polarity and carrier injection of gold and gadolinium oxide bi-nanocrystals structure. <i>Applied Physics Letters</i> , 2013 , 102, 083507	3.4	1
115	GaN Thin Film Based Light Addressable Potentiometric Sensor for pH Sensing Application. <i>Applied Physics Express</i> , 2013 , 6, 036601	2.4	34
114	Light-Immune pH Sensor with SiC-Based Electrolyte/Insulator/Semiconductor Structure. <i>Applied Physics Express</i> , 2013 , 6, 127002	2.4	7
113	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
112	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
111	Sensitive detection of unlabeled oligonucleotides using a paired surface plasma waves biosensor. <i>Biosensors and Bioelectronics</i> , 2012 , 35, 342-348	11.8	4
110	Gadolinium-based metal oxide for nonvolatile memory applications. <i>Microelectronics Reliability</i> , 2012 , 52, 635-641	1.2	12
109	Ti-doped Gd2O3 sensing membrane for electrolyte/Insulator/Semiconductor pH sensor. <i>Thin Solid Films</i> , 2012 , 520, 3760-3763	2.2	15
108	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
107	Immobilization of enzyme and antibody on ALD-HfO2-EIS structure by NH3 plasma treatment. <i>Nanoscale Research Letters</i> , 2012 , 7, 179	5	16
106	Bipolar resistive switching memory using bilayer TaOx/WOx films. <i>Solid-State Electronics</i> , 2012 , 77, 35-40	1.7	30
105	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	2.6	1
104	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
103	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
102	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
101	. <i>IEEE Transactions on Device and Materials Reliability</i> , 2012 , 12, 406-412	1.6	2
100	Characteristics of plasma immersion ion implantation treatment on tungsten nanocrystal nonvolatile memory. <i>Solid-State Electronics</i> , 2012 , 77, 31-34	1.7	1
99	Charge storage and data retention characteristics of forming gas-annealed Gd2O3-nanocrystal nonvolatile memory cell. <i>Microelectronics Reliability</i> , 2012 , 52, 1627-1631	1.2	3

98	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
97	Investigation of surface pretreatments on GaAs and memory characteristics of MOS capacitors embedded with Au nano-particles. <i>Microelectronics Reliability</i> , 2012 , 52, 2592-2596	1.2	4
96	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
95	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	1.4	
94	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
93	Dynamic Charge Centroid on Data Retention of Double-Nanostructure Nonvolatile Memory. <i>Applied Physics Express</i> , 2012 , 5, 044201	2.4	1
92	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
91	Optimization of urea-EnFET based on Ta ₂ O ₅ layer with post annealing. <i>Sensors</i> , 2011 , 11, 4562-71	3.8	29
90	A novel polybenzimidazole-modified gold electrode for the analytical determination of hydrogen peroxide. <i>Talanta</i> , 2011 , 85, 631-7	6.2	15
89	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
88	A novel light-addressable potentiometric sensors set-up with LCD projector as scanning light source 2011 ,		1
87	Characterization of laser carved micro channel polycrystalline silicon solar cell. <i>Solid-State Electronics</i> , 2011 , 61, 23-28	1.7	5
86	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	1.4	
85	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
84	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	1.4	
83	Effects of a HfMoN Metal Gate and Self-Aligned Fluorine-Ion Implantation on the Negative-Bias Temperature Instability of pMOSFETs With Gd_2O_3 Gate Dielectrics. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1017-1019	4.4	
82	Dual-sputtered process sensitivity of HfGdO charge-trapping layer in SONOS-type nonvolatile memory. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 011009	1.3	4
81	Improvement in Junction Breakdown and GIDL using MFLA in DRAM Product. <i>Journal of the Electrochemical Society</i> , 2011 , 158, H363	3.9	

80	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
79	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
78	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	1.4	3
77	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
76	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
75	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	1.4	1
74	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	1.4	4
73	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	1.4	3
72	The Investigation of the High-k 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
71	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
70	Nanostructure band engineering of gadolinium oxide nanocrystal memory by CF ₄ plasma treatment. <i>Applied Physics Letters</i> , 2010 , 97, 023513	3.4	22
69	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
68	Threshold Voltage Tunability of p-Channel Metal Oxide Semiconductor Field-Effect Transistor with Ternary Hf _x MoyNzMetal Gate and Gd ₂ O ₃ High-k Gate Dielectric. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 04DA15	1.4	
67	Differential Light Addressable Potentiometric Sensor with Poly(vinyl chloride) and HfO ₂ Membranes for pH Sensors. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 04DL10	1.4	2
66	Improved characteristics of Gd ₂ O ₃ nanocrystal memory with substrate high γ junction. <i>Solid-State Electronics</i> , 2010 , 54, 1493-1496	1.7	6
65	Non-ideal effects improvement of SF ₆ 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
64	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
63	Characteristics optimization of N ₂ O annealing on tungsten nanocrystal with W/Si dual-sputtered method for nonvolatile memory application. <i>Microelectronics Reliability</i> , 2010 , 50, 639-642	1.2	3

62	Characteristics of pH sensors fabricated by using protein-mediated CdSe/ZnS quantum dots. <i>Microelectronics Reliability</i> , 2010 , 50, 747-752	1.2	5
61	The characteristics of fluorinated polycrystalline silicon oxides and thin film transistors by CF ₄ plasma treatment. <i>Thin Solid Films</i> , 2010 , 519, 919-922	2.2	4
60	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
59	Sensitivity of Trapping Effect on Si ₃ N ₄ Sensing Membrane for Ion Sensitive Field Effect Transistor/Reference Field Effect Transistor Pair Application. <i>Sensor Letters</i> , 2010 , 8, 725-729	0.9	3
58	Sodium and potassium ion sensing properties of EIS and ISFET structures with fluorinated hafnium oxide sensing film 2009 ,		3
57	Characteristics of Gadolinium Oxide Nanocrystal Memory with Optimized Rapid Thermal Annealing. <i>Electrochemical and Solid-State Letters</i> , 2009 , 12, H202		33
56	Negative Bias Temperature Instability of p-Channel Metal Oxide Semiconductor Field Effect Transistor with Novel Hf _x Mo _y N _z Metal Gate Electrodes. <i>Japanese Journal of Applied Physics</i> , 2009 , 48, 04C013	1.4	2
55	High-k Hf _x Gd _y O _z Charge Trapping Layer in Silicon Oxide Nitride Silicon Type Nonvolatile Memory by In situ Radio Frequency Dual-Sputtering Method. <i>Japanese Journal of Applied Physics</i> , 2009 , 48, 05DF01-4		1.4
54	Optimization of a PVC Membrane for Reference Field Effect Transistors. <i>Sensors</i> , 2009 , 9, 2076-87	3.8	5
53	Gate-Induced Drain Leakage (GIDL) Improvement for Millisecond Flash Anneal (MFLA) in DRAM Application. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 1608-1617	2.9	4
52	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
51	Structural properties and sensing performance of high-k Nd ₂ TiO ₅ thin layer-based electrolyte-insulator-semiconductor for pH detection and urea biosensing. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2864-70	11.8	27
50	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
49	. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1639-1646	2.9	23
48	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
47	Fluorinated HfO ₂ gate dielectrics engineering for CMOS by pre- and post-CF ₄ plasma passivation 2008 ,		3
46	Performance and Interface Characterization for Contact Etch Stop Layer-Strained nMOSFET with HfO ₂ Gate Dielectrics under Pulsed-IV Measurement. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, H230		3
45	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

44	SiGe Nanocrystals Fabricated by One-Step Thermal Oxidation and Rapid Thermal Annealing. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, K44		2
43	Programming Speed Enhancement by NH ₃ Plasma Nitridation of Tunneling Oxide for Ge Nanocrystals Memory. <i>Journal of the Electrochemical Society</i> , 2008 , 155, H889	3.9	
42	Current Transport Mechanism for HfO ₂ Gate Dielectrics with Fluorine Incorporation. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, H15		8
41	Optimized ONO thickness for multi-level and 2-bit/cell operation for wrapped-select-gate (WSG) SONOS memory. <i>Semiconductor Science and Technology</i> , 2008 , 23, 015004	1.8	4
40	Characterizations of Hf _x Mo _y NzAlloys as Gate Electrodes for n- and p-Channel Metal Oxide Semiconductor Field Effect Transistors. <i>Japanese Journal of Applied Physics</i> , 2008 , 47, 2442-2445	1.4	2
39	Performance and reliability improvements in thin-film transistors with rapid thermal N ₂ O annealing. <i>Semiconductor Science and Technology</i> , 2008 , 23, 025020	1.8	5
38	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
37	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
36	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
35	pH-Sensitive Gd ₂ O ₃ /BiO ₂ Stacked Capacitors Prepared By Pure Water Anodic Oxidation. <i>Journal of the Electrochemical Society</i> , 2007 , 154, J150	3.9	12
34	Nitrogen Effects on the Integrity of Silicon Dioxide Grown on Polycrystalline Silicon. <i>Journal of the Electrochemical Society</i> , 2007 , 154, H883	3.9	
33	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
32	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
31	Electrical and Reliability Improvement in Polyoxide by Fluorine Implantation. <i>Journal of the Electrochemical Society</i> , 2007 , 154, H259	3.9	6
30	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
29	Chemical Sensing Properties of Electrolyte/SiGe/SiO ₂ /Si Structure. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 6192-6195	1.4	0
28	Thickness Effects on pH Response of HfO ₂ Sensing Dielectric Improved by Rapid Thermal Annealing. <i>Japanese Journal of Applied Physics</i> , 2006 , 45, 3807-3810	1.4	21
27	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

26	Work Function Adjustment by Nitrogen Incorporation in HfN _x Gate Electrode with Post Metal Annealing. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G239		13
25	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
24	Polarity Asymmetry of Polyoxide Grown on Phosphorus In Situ Doped Polysilicon. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G860	3.9	3
23	Oxide Grown on Polycrystal Silicon by Rapid Thermal Oxidation in N ₂ O. <i>Journal of the Electrochemical Society</i> , 2006 , 153, G128	3.9	14
22	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
21	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
20	pH Sensitivity Improvement on 8 nm Thick Hafnium Oxide by Post Deposition Annealing. <i>Electrochemical and Solid-State Letters</i> , 2006 , 9, G90		66
19	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
18	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
17	Oriented Schwann cell growth on microgrooved surfaces. <i>Biotechnology and Bioengineering</i> , 2005 , 92, 579-88	4.9	71
16	The characterization of stacked Bi/SiGe/Bi sensing membrane. <i>Microelectronic Engineering</i> , 2005 , 80, 46-49	2.5	1
15	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
14	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
13	High reliability polyoxide fabricated by using TEOS oxide deposited on disilane polysilicon film. <i>IEEE Transactions on Electron Devices</i> , 2001 , 48, 743-749	2.9	4
12	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
11	The TEOS oxide deposited on phosphorus in-situ/POCl ₃ /doped polysilicon with rapid thermal annealing in N ₂ O. <i>IEEE Transactions on Electron Devices</i> , 1998 , 45, 1927-1933	2.9	15
10	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
9	Improvement of polysilicon oxide by growing on polished polysilicon film. <i>IEEE Electron Device Letters</i> , 1997 , 18, 270-271	4.4	11

8	Low Temperature (850 °C) Two-Step N ₂ O Annealed Thin Gate Oxides. <i>Materials Research Society Symposia Proceedings</i> , 1996 , 428, 405		
7	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
6	Nitridization of the stacked poly-Si gate to suppress the boron penetration in pMOS. <i>IEEE Transactions on Electron Devices</i> , 1996 , 43, 1161-1165	2.9	4
5	A novel vertical bottom-gate polysilicon thin film transistor with self-aligned offset. <i>IEEE Electron Device Letters</i> , 1996 , 17, 199-201	4.4	5
4	. <i>IEEE Electron Device Letters</i> , 1995 , 16, 470-472	4.4	2
3	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
2	. <i>IEEE Electron Device Letters</i> , 1995 , 16, 385-386	4.4	11
1	High Efficiency Quasi-2D/3D PbBa Perovskite Solar Cells via Phenethylammonium Chloride Addition. <i>Solar Rrl</i> , 2101098	7.1	0