

Dimitris Tsoukalas

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/90609/publications.pdf>

Version: 2024-02-01

213
papers

4,178
citations

126708

33
h-index

161609

54
g-index

216
all docs

216
docs citations

216
times ranked

4275
citing authors

#	ARTICLE	IF	CITATIONS
1	Langmuir-Blodgett Film Deposition of Metallic Nanoparticles and Their Application to Electronic Memory Structures. <i>Nano Letters</i> , 2003, 3, 533-536.	4.5	279
2	A miniature pressure system with a capacitive sensor and a passive telemetry link for use in implantable applications. <i>Journal of Microelectromechanical Systems</i> , 2000, 9, 18-23.	1.7	137
3	Charge storage and interface states effects in Si-nanocrystal memory obtained using low-energy Si+ implantation and annealing. <i>Applied Physics Letters</i> , 2000, 77, 3450-3452.	1.5	130
4	A highly sensitive impedimetric aptasensor for the selective detection of acetamiprid and atrazine based on microwires formed by platinum nanoparticles. <i>Biosensors and Bioelectronics</i> , 2018, 101, 268-274.	5.3	115
5	Structural and electrical properties of silicon dioxide layers with embedded germanium nanocrystals grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2003, 82, 1212-1214.	1.5	110
6	Facile synthesis of core-shell structured PANI-Co ₃ O ₄ nanocomposites with superior electrochemical performance in supercapacitors. <i>Applied Surface Science</i> , 2016, 361, 57-62.	3.1	106
7	Highly Stretchable Electrodes on Wrinkled Polydimethylsiloxane Substrates. <i>Scientific Reports</i> , 2015, 5, 16527.	1.6	101
8	Effect of annealing environment on the memory properties of thin oxides with embedded Si nanocrystals obtained by low-energy ion-beam synthesis. <i>Applied Physics Letters</i> , 2003, 83, 168-170.	1.5	100
9	Hybrid silicon-organic nanoparticle memory device. <i>Journal of Applied Physics</i> , 2003, 94, 5234.	1.1	96
10	Tunable Properties of Mg-Doped V ₂ O ₅ Thin Films for Energy Applications: Li-Ion Batteries and Electrochromics. <i>Journal of Physical Chemistry C</i> , 2017, 121, 70-79.	1.5	82
11	Diffusivity measurements of silicon in silicon dioxide layers using isotopically pure material. <i>Journal of Applied Physics</i> , 2001, 89, 7809-7813.	1.1	73
12	Room-temperature single-electron charging phenomena in large-area nanocrystal memory obtained by low-energy ion beam synthesis. <i>Applied Physics Letters</i> , 2002, 80, 2794-2796.	1.5	69
13	Silicon nanocrystal memory devices obtained by ultra-low-energy ion-beam synthesis. <i>Solid-State Electronics</i> , 2004, 48, 1511-1517.	0.8	65
14	Thermochromic performance of Mg-doped VO ₂ thin films on functional substrates for glazing applications. <i>Solar Energy Materials and Solar Cells</i> , 2016, 157, 1004-1010.	3.0	60
15	Low-Power and Highly Uniform 3-b Multilevel Switching in Forming Free TiO ₂ -Based RRAM With Embedded Pt Nanocrystals. <i>IEEE Electron Device Letters</i> , 2016, 37, 874-877.	2.2	59
16	Recent advances in nanoparticle memories. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 124-125, 93-101.	1.7	57
17	High strain sensitivity controlled by the surface density of platinum nanoparticles. <i>Nanotechnology</i> , 2012, 23, 285501.	1.3	55
18	Transmission electron microscopy measurements of the injection distances in nanocrystal-based memories. <i>Applied Physics Letters</i> , 2003, 82, 200-202.	1.5	54

#	ARTICLE	IF	CITATIONS
19	Influence of oxygen content of room temperature TiO ₂ deposited films for enhanced resistive switching memory performance. <i>Journal of Applied Physics</i> , 2014, 115, 034516.	1.1	47
20	Impedimetric nanoparticle aptasensor for selective and label free pesticide detection. <i>Microelectronic Engineering</i> , 2018, 189, 39-45.	1.1	47
21	Tungsten doping effect on V2O5 thin film electrochromic performance. <i>Electrochimica Acta</i> , 2019, 321, 134743.	2.6	47
22	Fabrication of single crystal Si cantilevers using a dry release process and application in a capacitive-type humidity sensor. <i>Microelectronic Engineering</i> , 2002, 61-62, 955-961.	1.1	45
23	Nanocrystals manufacturing by ultra-low-energy ion-beam-synthesis for non-volatile memory applications. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 216, 228-238.	0.6	45
24	Low-Power Forming Free TiO ₂ /HfO ₂ /TiO ₂ RRAM Devices Exhibiting Synaptic Property Characteristics. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3151-3158.	1.8	43
25	Investigation of silicon interstitial reactions with insulating films using the silicon wafer bonding technique. <i>Applied Physics Letters</i> , 1993, 63, 3167-3169.	1.5	41
26	Modeling and experiments on diffusion and activation of phosphorus in germanium. <i>Journal of Applied Physics</i> , 2009, 105, 094910.	1.1	41
27	Breath Analysis: A Promising Tool for Disease Diagnosis – The Role of Sensors. <i>Sensors</i> , 2022, 22, 1238.	2.1	41
28	Electronic memory device based on a single-layer fluorene-containing organic thin film. <i>Applied Physics Letters</i> , 2007, 91, 123506.	1.5	40
29	Oxygen and temperature effects on the electrochemical and electrochromic properties of rf-sputtered V2O5 thin films. <i>Electrochimica Acta</i> , 2017, 232, 54-63.	2.6	40
30	MOS memory structures by very-low-energy-implanted Si in thin SiO ₂ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 14-18.	1.7	38
31	Engineering amorphous-crystalline interfaces in TiO ₂ ^x /TiO ₂ ^y -based bilayer structures for enhanced resistive switching and synaptic properties. <i>Journal of Applied Physics</i> , 2016, 120, .	1.1	38
32	Silicon self-diffusivity measurement in thermal SiO ₂ by ³⁰ Si/ ²⁸ Si isotopic exchange. <i>Journal of Applied Physics</i> , 2003, 94, 2136-2138.	1.1	34
33	Wrinkled Ag nanostructured gratings towards single molecule detection by ultrahigh surface Raman scattering enhancement. <i>Sensors and Actuators B: Chemical</i> , 2015, 218, 145-151.	4.0	34
34	Investigating the origins of ultra-short relaxation times of silver filaments in forming-free SiO ₂ -based conductive bridge memristors. <i>Nanotechnology</i> , 2020, 31, 454002.	1.3	34
35	Resistive crack-based nanoparticle strain sensors with extreme sensitivity and adjustable gauge factor, made on flexible substrates. <i>Nanoscale</i> , 2021, 13, 3263-3274.	2.8	34
36	Nickel nanoparticle deposition at room temperature for memory applications. <i>Microelectronic Engineering</i> , 2007, 84, 1994-1997.	1.1	33

#	ARTICLE	IF	CITATIONS
37	Influence of Ti top electrode thickness on the resistive switching properties of forming free and self-rectified TiO ₂ thin films. <i>Thin Solid Films</i> , 2014, 571, 23-31.	0.8	33
38	Investigating the origins of high multilevel resistive switching in forming free Ti/TiO ₂ -based memory devices through experiments and simulations. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	32
39	Forming-free resistive switching memories based on titanium-oxide nanoparticles fabricated at room temperature. <i>Applied Physics Letters</i> , 2013, 102, 022909.	1.5	31
40	Laser annealing for n+/p junction formation in germanium. <i>Materials Science in Semiconductor Processing</i> , 2006, 9, 644-649.	1.9	30
41	Electrical behavior of memory devices based on fluorene-containing organic thin films. <i>Journal of Applied Physics</i> , 2008, 104, 044510.	1.1	30
42	Flexible polyimide chemical sensors using platinum nanoparticles. <i>Sensors and Actuators B: Chemical</i> , 2013, 189, 106-112.	4.0	29
43	Formation of 2-D arrays of semiconductor nanocrystals or semiconductor-rich nanolayers by very low-energy Si or Ge ion implantation in silicon oxide films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001, 178, 74-77.	0.6	28
44	Effect of ion energy and dose on the positioning of 2D-arrays of Si nanocrystals ion beam synthesised in thin SiO ₂ layers. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 101, 204-207.	1.7	27
45	Metal nano-floating gate memory devices fabricated at low temperature. <i>Microelectronic Engineering</i> , 2006, 83, 1563-1566.	1.1	26
46	A chemical sensor microarray realized by laser printing of polymers. <i>Sensors and Actuators B: Chemical</i> , 2010, 150, 148-153.	4.0	26
47	A sensing approach for automated and real-time pesticide detection in the scope of smart-farming. <i>Computers and Electronics in Agriculture</i> , 2020, 178, 105759.	3.7	26
48	Capacitive-type chemical sensors using thin silicon/polymer bimorph membranes. <i>Sensors and Actuators B: Chemical</i> , 2004, 103, 392-396.	4.0	25
49	Experiments and simulation on diffusion and activation of codoped with arsenic and phosphorous germanium. <i>Journal of Applied Physics</i> , 2010, 108, 024903.	1.1	25
50	Surface functionalization studies and direct laser printing of oligonucleotides toward the fabrication of a micromembrane DNA capacitive biosensor. <i>Sensors and Actuators B: Chemical</i> , 2012, 175, 123-131.	4.0	25
51	Ultra-Low Power Multilevel Switching with Enhanced Uniformity in Forming Free TiO ₂ -Based RRAM with Embedded Pt Nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1700570.	0.8	25
52	Heavy metal ion detection using DNAzyme-modified platinum nanoparticle networks. <i>Sensors and Actuators B: Chemical</i> , 2017, 239, 962-969.	4.0	25
53	PHEMA functionalization of gold nanoparticles for vapor sensing: Chemi-resistance, chemi-capacitance and chemi-impedance. <i>Sensors and Actuators B: Chemical</i> , 2012, 170, 129-136.	4.0	24
54	Memory programming of TiO ₂ films by Conductive Atomic Force Microscopy evidencing filamentary resistive switching. <i>Applied Surface Science</i> , 2015, 332, 55-61.	3.1	24

#	ARTICLE	IF	CITATIONS
55	The effect of buffer layer on the thermochromic properties of undoped radio frequency sputtered VO ₂ thin films. <i>Thin Solid Films</i> , 2015, 594, 310-315.	0.8	24
56	Impact of Pt embedded nanocrystals on the resistive switching and synaptic properties of forming free TiO ₂ /TiO ₂ -y-based bilayer structures. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	24
57	From silicon to organic nanoparticle memory devices. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 4169-4179.	1.6	23
58	Emulating artificial neuron and synaptic properties with SiO ₂ -based memristive devices by tuning threshold and bipolar switching effects. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 225303.	1.3	23
59	A pile-up phenomenon during arsenic diffusion in silicon-insulator structures formed by oxygen implantation. <i>Journal of Applied Physics</i> , 1989, 66, 3585-3589.	1.1	22
60	Suppression mechanisms for oxidation stacking faults in silicon on insulator. <i>Journal of Applied Physics</i> , 1992, 71, 1713-1720.	1.1	22
61	Estimation of the Number of Interstitial Atoms Injected in Silicon during Thin Oxide Formation. <i>Journal of the Electrochemical Society</i> , 1999, 146, 2276-2283.	1.3	22
62	Millisecond non-melt laser annealing of phosphorus implanted germanium: Influence of nitrogen co-doping. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	22
63	Enhancing the synaptic properties of low-power and forming-free HfO _x /TaO _y /HfO _x resistive switching devices. <i>Microelectronic Engineering</i> , 2020, 229, 111358.	1.1	22
64	Ultraminiature silicon capacitive pressure-sensing elements obtained by silicon fusion bonding. <i>Sensors and Actuators A: Physical</i> , 1998, 68, 269-274.	2.0	20
65	Chemiresistive sensor fabricated by the sequential ink-jet printing deposition of a gold nanoparticle and polymer layer. <i>Microelectronic Engineering</i> , 2010, 87, 2258-2263.	1.1	20
66	Laser printing and characterization of semiconducting polymers for organic electronics. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 559-563.	1.1	20
67	Tuning the analog synaptic properties of forming free SiO ₂ memristors by material engineering. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	20
68	Assembly of charged nanoparticles using self-electrodynamic focusing. <i>Nanotechnology</i> , 2009, 20, 365605.	1.3	19
69	Detection of DNA mutations using a capacitive micro-membrane array. <i>Biosensors and Bioelectronics</i> , 2010, 26, 1588-1592.	5.3	19
70	Vectorial strain gauge method using single flexible orthogonal polydimethylsiloxane gratings. <i>Scientific Reports</i> , 2016, 6, 23606.	1.6	19
71	Two-dimensional nanoparticle self-assembly using plasma-induced Ostwald ripening. <i>Nanotechnology</i> , 2011, 22, 235306.	1.3	18
72	Label-free DNA biosensor based on resistance change of platinum nanoparticles assemblies. <i>Biosensors and Bioelectronics</i> , 2016, 81, 388-394.	5.3	18

#	ARTICLE	IF	CITATIONS
73	A solid-state pressure-sensing microsystem for biomedical applications. <i>Sensors and Actuators A: Physical</i> , 1997, 62, 551-555.	2.0	17
74	Silicon nanocrystal formation in thin thermal-oxide films by very-low energy Si ⁺ ion implantation. <i>Microelectronic Engineering</i> , 1997, 36, 79-82.	1.1	17
75	Non-melt laser annealing of Plasma Implanted Boron for ultra shallow junctions in Silicon. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2008, 154-155, 39-42.	1.7	17
76	Nanoparticle Strain Sensor. <i>Procedia Engineering</i> , 2011, 25, 635-638.	1.2	17
77	Picosecond and nanosecond laser annealing and simulation of amorphous silicon thin films for solar cell applications. <i>Journal of Applied Physics</i> , 2014, 115, 043108.	1.1	17
78	Low temperature wafer bonding for thin silicon film transfer. <i>Sensors and Actuators A: Physical</i> , 2004, 110, 401-406.	2.0	16
79	Detection of the biotin-streptavidin interaction by exploiting surface stress changes on ultrathin Si membranes. <i>Microelectronic Engineering</i> , 2009, 86, 1495-1498.	1.1	16
80	Raman enhancement of rhodamine adsorbed on Ag nanoparticles self-assembled into nanowire-like arrays. <i>Nanoscale Research Letters</i> , 2011, 6, 629.	3.1	16
81	Low temperature rf-sputtered thermochromic VO ₂ films on flexible glass substrates. <i>Advanced Materials Letters</i> , 2017, 8, 757-761.	0.3	16
82	Optimization of hafnium oxide for use in nanoparticle memories. <i>Microelectronic Engineering</i> , 2011, 88, 1189-1193.	1.1	15
83	Impact of Active Electrode on the Synaptic Properties of SiO ₂ -Based Forming-Free Conductive Bridge Memory. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1598-1603.	1.6	15
84	Comparison between the growth and shrinkage of oxidation stacking faults in silicon and silicon on insulator. <i>Journal of Applied Physics</i> , 1993, 73, 3246-3249.	1.1	14
85	Diffusion and activation of phosphorus in germanium. <i>Materials Science in Semiconductor Processing</i> , 2008, 11, 372-377.	1.9	14
86	Application of a new analytical technique of electron distribution calculations to the profile simulation of a high sensitivity negative electron-beam resist. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1992, 10, 2606.	1.6	13
87	MOS memory devices based on silicon nanocrystal arrays fabricated by very low energy ion implantation. <i>Materials Science and Engineering C</i> , 2001, 15, 145-147.	3.8	13
88	Capacitance to Frequency Converter Suitable for Sensor Applications Using Telemetry. <i>Analog Integrated Circuits and Signal Processing</i> , 2001, 27, 31-38.	0.9	13
89	Investigation of the gate oxide leakage current of low temperature formed hafnium oxide films. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	13
90	Nanoparticle based gas-sensing array for pesticide detection. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 6641-6646.	3.3	13

#	ARTICLE	IF	CITATIONS
91	Spatial Confinement Effects of Embedded Nanocrystals on Multibit and Synaptic Properties of Forming Free SiO ₂ -Based Conductive Bridge Random Access Memory. IEEE Electron Device Letters, 2020, 41, 1013-1016.	2.2	13
92	A miniature self-aligned pressure sensing element. Journal of Micromechanics and Microengineering, 1996, 6, 33-35.	1.5	12
93	Point defect injection during nitrous oxidation of silicon at low temperatures. Journal of Applied Physics, 2000, 87, 1103-1109.	1.1	12
94	Chemical sensing based on double layer PHEMA polymer and platinum nanoparticle films. Sensors and Actuators B: Chemical, 2012, 175, 85-91.	4.0	12
95	Cluster beam synthesis of metal and metal-oxide nanoparticles for emerging memories. Solid-State Electronics, 2014, 101, 95-105.	0.8	12
96	Tuning Resistive, Capacitive, and Synaptic Properties of Forming Free TiO ₂ -Based RRAM Devices by Embedded Pt and Ta Nanocrystals. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700440.	0.8	12
97	Effects of annealing conditions on charge storage of Si nanocrystal memory devices obtained by low-energy ion beam synthesis. Microelectronic Engineering, 2003, 67-68, 629-634.	1.1	11
98	Effect of ion energy and dose on the positioning of 2D-arrays of Si nanocrystals ion beam synthesized in thin SiO ₂ layers. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 513-515.	1.3	11
99	Design and fabrication of a Si micromechanical capacitive array for DNA sensing. Microelectronic Engineering, 2008, 85, 1359-1361.	1.1	11
100	Metallic nanoparticles for application in electronic non-volatile memories. International Journal of Nanotechnology, 2009, 6, 35.	0.1	11
101	Trapping properties of sputtered hafnium oxide films: Bulk traps vs. interface traps. Thin Solid Films, 2010, 518, 5579-5584.	0.8	11
102	ZnO nanoparticles produced by novel reactive physical deposition process. Applied Surface Science, 2011, 257, 5366-5369.	3.1	11
103	Coexistence of bipolar and threshold resistive switching in TiO ₂ -based structure with embedded hafnium nanoparticles. Journal Physics D: Applied Physics, 2017, 50, 045103.	1.3	11
104	Atomic layer deposited Al ₂ O ₃ thin films as humidity barrier coatings for nanoparticle-based strain sensors. Nanotechnology, 2018, 29, 465706.	1.3	11
105	Thin Film Protected Flexible Nanoparticle Strain Sensors: Experiments and Modeling. Sensors, 2020, 20, 2584.	2.1	11
106	Low Power Stochastic Neurons From SiO ₂ -Based Bilayer Conductive Bridge Memristors for Probabilistic Spiking Neural Network Applications”Part I: Experimental Characterization. IEEE Transactions on Electron Devices, 2022, 69, 2360-2367.	1.6	11
107	Oxidation of nitrogen-implanted silicon: Energy dependence of oxide growth and defect characterization of the silicon substrate. Journal of Applied Physics, 2003, 93, 1832-1838.	1.1	10
108	Emulating Artificial Synaptic Plasticity Characteristics from SiO ₂ -Based Conductive Bridge Memories with Pt Nanoparticles. Micromachines, 2021, 12, 306.	1.4	10

#	ARTICLE	IF	CITATIONS
109	A Chemical Etching for the Delineation of Oxidation Stacking Faults in Silicon Implanted with Oxygen Structures. Journal of the Electrochemical Society, 1991, 138, 2752-2755.	1.3	9
110	Influence of N ₂ O oxidation of silicon on point defect injection kinetics in the high temperature regime. Applied Physics Letters, 1996, 69, 2725-2727.	1.5	9
111	Reduction of the reverse short channel effect in thick SOI MOSFET's. IEEE Electron Device Letters, 1997, 18, 90-92.	2.2	9
112	Parameters influencing the flatness and stability of capacitive pressure sensors fabricated with wafer bonding. Sensors and Actuators A: Physical, 1999, 76, 403-408.	2.0	9
113	Modeling of charge-trapping non-volatile-memories based on HfO ₂ . Microelectronic Engineering, 2012, 90, 23-25.	1.1	9
114	$\{m CO\}_{2}$ Laser Annealing for USJ Formation in Silicon: Comparison of Simulation and Experiment. IEEE Transactions on Electron Devices, 2014, 61, 696-701.	1.6	9
115	Low Power Stochastic Neurons From SiO ₂ -Based Bilayer Conductive Bridge Memristors for Probabilistic Spiking Neural Network Applications”Part II: Modeling. IEEE Transactions on Electron Devices, 2022, 69, 2368-2376.	1.6	9
116	Oxidation of nitrogen-implanted silicon: Comparison of nitrogen distribution and electrical properties of oxides formed by very low and medium energy N ₂ ⁺ implantation. Journal of Applied Physics, 2004, 96, 300-309.	1.1	8
117	Size and aerial density distributions of Ge nanocrystals in a SiO ₂ layer produced by molecular beam epitaxy and rapid thermal processing. Applied Physics A: Materials Science and Processing, 2005, 81, 363-366.	1.1	8
118	Materials Science Issues for the Fabrication of Nanocrystal Memory Devices by Ultra Low Energy Ion Implantation. Defect and Diffusion Forum, 2006, 258-260, 531-541.	0.4	8
119	Deposition and electrical characterization of hafnium oxide films on silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3720-3723.	0.8	8
120	Nickel nanoparticle size and density effects on non-volatile memory performance. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, .	0.6	8
121	Silicon interstitial trapping in polycrystalline silicon films studied by monitoring interstitial reactions with underlying insulating films. Applied Physics Letters, 1996, 68, 1549-1551.	1.5	7
122	Model for the recombination velocity of silicon interstitials at nonoxidizing interfaces. Journal of Applied Physics, 1998, 84, 6650-6658.	1.1	7
123	Influence of the annealing ambient on the relative thermal stability of dislocation loops in silicon. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 84-88.	0.6	7
124	A new masking method for protecting silicon surfaces during anisotropic silicon wet etching. Microelectronic Engineering, 2002, 61-62, 895-900.	1.1	7
125	Capacitive pressure sensors and switches fabricated using strain compensated SiGeB. Microelectronic Engineering, 2006, 83, 1209-1211.	1.1	7
126	Size control of Ag nanoparticles for SERS sensing applications. Procedia Engineering, 2011, 25, 280-283.	1.2	7

#	ARTICLE	IF	CITATIONS
127	Plasma induced degradation and surface electronic structure modification of Poly(3-hexylthiophene) films. <i>Polymer Degradation and Stability</i> , 2018, 149, 162-172.	2.7	7
128	Highly Flexible Artificial Synapses from SiO ₂ -Based Conductive Bridge Memristors and Pt Nanoparticles through a Crack Suppression Technique. <i>ACS Applied Electronic Materials</i> , 2021, 3, 2729-2737.	2.0	7
129	Investigation of the distribution of silicon interstitials in silicon and silicon-insulator structures after thermal oxidation. <i>Applied Physics Letters</i> , 1995, 66, 971-973.	1.5	6
130	Fabrication of Si nanodevices by optical lithography and anisotropic etching. <i>Microelectronic Engineering</i> , 1998, 41-42, 523-526.	1.1	6
131	Use of isotopically pure silicon material to estimate silicon diffusivity in silicon dioxide. <i>Materials Research Society Symposia Proceedings</i> , 2001, 669, 1.	0.1	6
132	Evolution and control of the structure of a SiO ₂ /semiconductor nanoelectronics material. <i>Microelectronic Engineering</i> , 2002, 61-62, 631-635.	1.1	6
133	Fabrication of chemical sensors based on Si/polymer bimorphs. <i>Microelectronic Engineering</i> , 2004, 73-74, 847-851.	1.1	6
134	Non-melting annealing of silicon by CO ₂ laser. <i>Thin Solid Films</i> , 2010, 518, 2551-2554.	0.8	6
135	Evaluation of capacitive surface stress biosensors. <i>Microelectronic Engineering</i> , 2012, 90, 37-39.	1.1	6
136	Synthesis of hafnium nanoparticles and hafnium nanoparticle films by gas condensation and energetic deposition. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1868-1880.	1.5	6
137	Nanoparticles Synthesised in the Gas-Phase and Their Applications in Sensors: A Review. <i>Applied Nano</i> , 2020, 1, 70-86.	0.9	6
138	Simulation tool for predicting and optimizing the performance of nanoparticle based strain sensors. <i>Nanotechnology</i> , 2021, 32, 275501.	1.3	6
139	Influence of implantation energy on the electrical properties of ultrathin gate oxides grown on nitrogen implanted Si substrates. <i>Applied Physics Letters</i> , 2003, 82, 4764-4766.	1.5	5
140	Field effect devices with metal nanoparticles integrated by Langmuir-Blodgett technique for non-volatile memory applications. <i>Journal of Physics: Conference Series</i> , 2005, 10, 57-60.	0.3	5
141	Laser annealing of plasma implanted boron for ultra-shallow junctions in Silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 253, 13-17.	0.6	5
142	Proton Radiation Effects on Nanocrystal Non-Volatile Memories. <i>IEEE Transactions on Nuclear Science</i> , 2007, 54, 975-981.	1.2	5
143	Formation of silicon ultra shallow junction by non-melt excimer laser treatment. <i>Solid-State Electronics</i> , 2010, 54, 903-908.	0.8	5
144	Novel conducting polymer current limiting devices for low cost surge protection applications. <i>Journal of Applied Physics</i> , 2014, 116, 164501.	1.1	5

#	ARTICLE	IF	CITATIONS
145	ZnO nanoparticles embedded in polyethylene-glycol (PEG) matrix as sensitive strain gauge elements. Journal of Nanoparticle Research, 2014, 16, 1.	0.8	5
146	Improving the resistive switching uniformity of forming-free TiO ₂ based devices by embedded Pt nanocrystals. , 2015, , .		5
147	Understanding the Formation of Conducting Filaments in RRAM Through the Design of Experiments. International Journal of High Speed Electronics and Systems, 2016, 25, 1640007.	0.3	5
148	Identification of Two Commercial Pesticides by a Nanoparticle Gas-Sensing Array. Sensors, 2021, 21, 5803.	2.1	5
149	Memristive Oscillatory Networks for Computing: The Chemical Wave Propagation Paradigm. , 2021, , .		5
150	Emulating low power nociceptive functionalities with a forming-free SiO ₂ /VO _x conductive bridge memory with Pt nanoparticles. Applied Physics Letters, 2022, 120, .	1.5	5
151	Study of the growth kinetics of oxidation-induced stacking faults in separation by implanted oxygen structures using a new chemical etching process. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1992, 12, 209-211.	1.7	4
152	Influence of Ge implantation on the mechanical properties of polycrystalline silicon microstructures. Journal of Micromechanics and Microengineering, 2002, 12, 450-457.	1.5	4
153	Proton radiation tolerance of nanocrystal memories. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 38, 67-70.	1.3	4
154	Selective deposition of charged nanoparticles by self-electric focusing effect. Microelectronic Engineering, 2009, 86, 898-901.	1.1	4
155	Fabrication of gold nanoparticle lines based on fracture induced patterning. Microelectronic Engineering, 2009, 86, 861-864.	1.1	4
156	Electrostatic self-assembly of nanoparticles into ordered nanowire arrays. Journal of Materials Research, 2011, 26, 209-214.	1.2	4
157	Material design strategies for emulating neuromorphic functionalities with resistive switching memories. Japanese Journal of Applied Physics, 2022, 61, SM0806.	0.8	4
158	Oxidation Stacking Faults in SIMOX and Silicon-on-Insulator Structures Obtained by Wafer Bonding. Journal of the Electrochemical Society, 1993, 140, 544-548.	1.3	3
159	Single crystal silicon thin film transistors fabricated at low process temperatures on glass substrates. Electronics Letters, 1996, 32, 775.	0.5	3
160	Impact of structural parameters on the performance of silicon micromachined capacitive pressure sensors. Sensors and Actuators A: Physical, 2007, 137, 20-24.	2.0	3
161	Fabrication of Nanowires from Gold Nanoparticles by AC Dielectrophoresis and Ink-Jet Delivery. Journal of Nano Research, 0, 6, 67-74.	0.8	3
162	Resistive memory multilayer structure with self-rectifying and forming free properties along with their modification by adding a hafnium nanoparticle midlayer. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	3

#	ARTICLE	IF	CITATIONS
163	Margolus Chemical Wave Logic Gate with Memristive Oscillatory Networks. , 2021, , .		3
164	Chemical Wave Computing from Labware to Electrical Systems. Electronics (Switzerland), 2022, 11, 1683.	1.8	3
165	Investigation of the interaction between silicon interstitials and dislocation loops using the wafer bonding technique. Journal of Applied Physics, 2000, 87, 8380-8384.	1.1	2
166	Investigation of the influence of a dislocation loop layer on interstitial kinetics during surface oxidation of silicon. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 180-183.	0.6	2
167	Influence of implantation dose on the charge storage characteristics of MOS memory devices with low energy Si implanted gate oxides. Microelectronic Engineering, 2002, 61-62, 505-510.	1.1	2
168	Development of Wireless Pressure Measurement System for Short Range medical Applications. , 2007, , .		2
169	High-density plasma silicon oxide thin films grown at room-temperature. Microelectronic Engineering, 2008, 85, 1245-1247.	1.1	2
170	Flexible platinum nanoparticle strain sensors. , 2013, , .		2
171	Physical modelling of the SET/RESET characteristics and analog properties of $\text{TiO}_x/\text{HfO}_{2x}/\text{TiO}_x$ -based RRAM devices. , 2016, , .		2
172	Experiments and simulation of multilevel resistive switching in forming free $\text{Ti}/\text{TiO}_{2x}$ RRAM devices. , 2017, , .		2
173	Coalescence of Cluster Beam Generated Sub- μm Bare Au Nanoparticles and Analysis of Au Film Growth Parameters. Annalen Der Physik, 2018, 530, 1700256.	0.9	2
174	Laser-matter interactions. , 2021, , 49-78.		2
175	Point Defect Generation During Si Oxidation and Oxynitridation. , 1998, , 359-373.		2
176	Estimation of the Number of Injected Interstitial Atoms during Nitrous Oxidation of Silicon. Materials Research Society Symposia Proceedings, 1999, 568, 289.	0.1	1
177	Silicon-nanocrystal-based multiple-tunnel junction devices obtained by a combination of V-groove and ion beam synthesis techniques. Microelectronic Engineering, 2001, 57-58, 1003-1007.	1.1	1
178	A Masking Approach for Anisotropic Silicon Wet Etching. Electrochemical and Solid-State Letters, 2001, 4, 673.	2.2	1
179	Gold Langmuir-Blodgett deposited nanoparticles for non-volatile memories. Materials Research Society Symposia Proceedings, 2004, 830, 317.	0.1	1
180	A Si/SiGe MOSFET utilizing low-temperature wafer bonding. Microelectronic Engineering, 2005, 78-79, 244-247.	1.1	1

#	ARTICLE	IF	CITATIONS
181	Interstitial injection during oxidation of very low energy nitrogen-implanted silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 314-318.	1.7	1
182	Injection of point defects during annealing of low energy As implanted silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 124-125, 261-265.	1.7	1
183	Deposition Of Uniform Size Metallic Nanoparticles For Use In Non Volatile Memories. Materials Research Society Symposia Proceedings, 2007, 997, 1.	0.1	1
184	Chemi-resistive sensors based on platinum nanoparticle arrays. Procedia Engineering, 2011, 25, 1129-1132.	1.2	1
185	Platinum Nanoparticle Chemical Sensors on Polyimide Substrates. Procedia Engineering, 2012, 47, 778-781.	1.2	1
186	Unconventional Logic on Memristor-Based Oscillatory Medium. , 2021, , .		1
187	Modelling of silicon interstitial surface recombination velocity at non-oxidizing interfaces. , 1995, , 452-455.		1
188	Multifunctional Spatially-Expanded Logic Gate for Unconventional Computations with Memristor-Based Oscillators. , 2021, , .		1
189	Characterisation of oxidation-induced stacking faults in SOI structures by a new chemical etching process. Semiconductor Science and Technology, 1992, 7, A193-A195.	1.0	0
190	Suppression of oxidation stacking faults in silicon separation by oxygen. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1992, 12, 47-51.	1.7	0
191	Silicon interstitial reactions with thermally grown silicon dioxide. Microelectronic Engineering, 1993, 22, 363-366.	1.1	0
192	Decrease of the lateral distribution of interstitials in Silicon-On-Insulator structures. Microelectronic Engineering, 1995, 28, 463-466.	1.1	0
193	Electrical and structural characterization of wafer bonded non-annealed Simox. Microelectronic Engineering, 1995, 28, 471-474.	1.1	0
194	Point Defect Injection Kinetics by N ₂ O Oxidation of Silicon. Materials Research Society Symposia Proceedings, 1997, 469, 133.	0.1	0
195	Miniaturization of Si diaphragms obtained by wafer bonding. Microelectronic Engineering, 1998, 41-42, 437-440.	1.1	0
196	Fabrication of Si nano-wires using anisotropic dry and wet etching. Microelectronic Engineering, 1998, 41-42, 551-554.	1.1	0
197	Electrical characterisation of silicon wafer bonding structures. Solid-State Electronics, 1998, 42, 201-204.	0.8	0
198	Annealing Behavior of Locally Confined Dislocation Loops Under Inert And Oxidizing Ambient. Materials Research Society Symposia Proceedings, 2002, 717, 1.	0.1	0

#	ARTICLE	IF	CITATIONS
199	Ge nanocrystals in MOS-memory structures produced by molecular-beam epitaxy and rapid-thermal processing. Materials Research Society Symposia Proceedings, 2004, 830, 288.	0.1	0
200	Nitrogen distribution during oxidation of low and medium energy nitrogen-implanted silicon. Nuclear Instruments & Methods in Physics Research B, 2004, 216, 75-79.	0.6	0
201	Combination of integrated thermal flow and capacitive pressure sensors for high sensitivity flow measurements in both laminar and turbulent regions. Journal of Physics: Conference Series, 2005, 10, 277-280.	0.3	0
202	Investigation of top gate electrode options for high- κ gate dielectric MOS capacitors. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3626-3629.	0.8	0
203	Sensitivity investigations of surface stress capacitive DNA sensor. , 2010, , .		0
204	Inorganic Nanoparticles for either Charge Storage or Memristance Modulation. Advances in Science and Technology, 2012, 77, 196-204.	0.2	0
205	Resistive switching memory using titanium-oxide nanoparticle films. , 2012, , .		0
206	Material and Device Parameters Influencing Multi-Level Resistive Switching of Room Temperature Grown Titanium Oxide Layers. Materials Research Society Symposia Proceedings, 2015, 1729, 59-64.	0.1	0
207	Structural Characterization of Layers for Advanced Non-volatile Memories. Springer Proceedings in Physics, 2015, , 9-17.	0.1	0
208	Nanoparticles-Based Flash-Like Nonvolatile Memories: Cluster Beam Synthesis of Metallic Nanoparticles and Challenges for the Overlying Control Oxide Layer. , 2017, , 157-210.		0
209	Understanding the Formation of Conducting Filaments in RRAM Through the Design of Experiments. , 2017, , .		0
210	Emulating artificial mechanoreceptor functionalities from SiO ₂ -based memristor and PDMS stretchable sensor for artificial skin applications. , 2021, , .		0
211	Emulating artificial mechanoreceptor functionalities from SiO ₂ -based memristor and PDMS stretchable sensor for artificial skin applications. , 2021, , .		0
212	Memristor-based Oscillator for Complex Chemical Wave Logic Computations: Fredkin Gate Paradigm. , 2022, , .		0
213	Demonstration of Enhanced Switching Variability and Conductance Quantization Properties in a SiO ₂ Conducting Bridge Resistive Memory with Embedded Two-Dimensional MoS ₂ Material. ACS Applied Electronic Materials, 2022, 4, 2869-2878.	2.0	0