

R Stanley Williams

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

385
papers

41,086
citations

91
h-index

197
g-index

396
ext. papers

46,484
ext. citations

6.3
avg, IF

7.43
L-index

#	Paper	IF	Citations
385	The missing memristor found. <i>Nature</i> , 2008 , 453, 80-3	50.4	7042
384	Memristive switching mechanism for metal/oxide/metal nanodevices. <i>Nature Nanotechnology</i> , 2008 , 3, 429-33	28.7	2239
383	Memristive switches enable stateful logic operations via material implication. <i>Nature</i> , 2010 , 464, 873-5	50.4	1405
382	Electronically configurable molecular-based logic gates. <i>Science</i> , 1999 , 285, 391-4	33.3	1311
381	Memristors with diffusive dynamics as synaptic emulators for neuromorphic computing. <i>Nature Materials</i> , 2017 , 16, 101-108	27	1201
380	Shape transition of germanium nanocrystals on a silicon (001) surface from pyramids to domes. <i>Science</i> , 1998 , 279, 353-5	33.3	781
379	A Defect-Tolerant Computer Architecture: Opportunities for Nanotechnology. <i>Science</i> , 1998 , 280, 1716-1721	33.3	742
378	Sequence-Specific Label-Free DNA Sensors Based on Silicon Nanowires. <i>Nano Letters</i> , 2004 , 4, 245-247	11.5	643
377	A scalable neuristor built with Mott memristors. <i>Nature Materials</i> , 2013 , 12, 114-7	27	614
376	The mechanism of electroforming of metal oxide memristive switches. <i>Nanotechnology</i> , 2009 , 20, 215203	3.4	591
375	Analogue signal and image processing with large memristor crossbars. <i>Nature Electronics</i> , 2018 , 1, 52-59	28.4	550
374	Fully memristive neural networks for pattern classification with unsupervised learning. <i>Nature Electronics</i> , 2018 , 1, 137-145	28.4	511
373	Memristor-CMOS hybrid integrated circuits for reconfigurable logic. <i>Nano Letters</i> , 2009 , 9, 3640-5	11.5	507
372	Sub-nanosecond switching of a tantalum oxide memristor. <i>Nanotechnology</i> , 2011 , 22, 485203	3.4	506
371	Switching dynamics in titanium dioxide memristive devices. <i>Journal of Applied Physics</i> , 2009 , 106, 074508	2.5	506
370	Nanoscale molecular-switch crossbar circuits. <i>Nanotechnology</i> , 2003 , 14, 462-468	3.4	476
369	High switching endurance in TaOx memristive devices. <i>Applied Physics Letters</i> , 2010 , 97, 232102	3.4	467

368	Efficient and self-adaptive in-situ learning in multilayer memristor neural networks. <i>Nature Communications</i> , 2018 , 9, 2385	17.4	371
367	Exponential ionic drift: fast switching and low volatility of thin-film memristors. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 94, 515-519	2.6	369
366	Memristor-Based Analog Computation and Neural Network Classification with a Dot Product Engine. <i>Advanced Materials</i> , 2018 , 30, 1705914	24	339
365	Anatomy of a nanoscale conduction channel reveals the mechanism of a high-performance memristor. <i>Advanced Materials</i> , 2011 , 23, 5633-40	24	338
364	Dot-product engine for neuromorphic computing 2016 ,		303
363	Molecule-Independent Electrical Switching in Pt/Organic Monolayer/Ti Devices. <i>Nano Letters</i> , 2004 , 4, 133-136	11.5	298
362	Chaotic dynamics in nanoscale NbO Mott memristors for analogue computing. <i>Nature</i> , 2017 , 548, 318-321	10.4	296
361	Deposition of three-dimensional Ge islands on Si(001) by chemical vapor deposition at atmospheric and reduced pressures. <i>Journal of Applied Physics</i> , 1997 , 81, 211-219	2.5	286
360	Direct identification of the conducting channels in a functioning memristive device. <i>Advanced Materials</i> , 2010 , 22, 3573-7	24	278
359	Ti-catalyzed Si nanowires by chemical vapor deposition: Microscopy and growth mechanisms. <i>Journal of Applied Physics</i> , 2001 , 89, 1008-1016	2.5	255
358	Submicron-scale surface roughening induced by ion bombardment. <i>Physical Review Letters</i> , 1991 , 67, 1759-1762	7.4	246
357	Anatomy of Ag/Hafnia-Based Selectors with 10 Nonlinearity. <i>Advanced Materials</i> , 2017 , 29, 1604457	24	245
356	Vapor-phase self-assembled monolayer for improved mold release in nanoimprint lithography. <i>Langmuir</i> , 2005 , 21, 1158-61	4	240
355	Self-assembled growth of epitaxial erbium disilicide nanowires on silicon (001). <i>Applied Physics Letters</i> , 2000 , 76, 4004-4006	3.4	239
354	Coupled ionic and electronic transport model of thin-film semiconductor memristive behavior. <i>Small</i> , 2009 , 5, 1058-63	11	236
353	Nano/CMOS architectures using a field-programmable nanowire interconnect. <i>Nanotechnology</i> , 2007 , 18, 035204	3.4	233
352	Sub-100 fJ and sub-nanosecond thermally driven threshold switching in niobium oxide crosspoint nanodevices. <i>Nanotechnology</i> , 2012 , 23, 215202	3.4	226
351	Ionic/electronic hybrid materials integrated in a synaptic transistor with signal processing and learning functions. <i>Advanced Materials</i> , 2010 , 22, 2448-53	24	225

350	Nanoscale molecular-switch devices fabricated by imprint lithography. <i>Applied Physics Letters</i> , 2003 , 82, 1610-1612	3.4	223
349	Ultrasoother silver thin films deposited with a germanium nucleation layer. <i>Nano Letters</i> , 2009 , 9, 178-82	11.5	222
348	Lithographic positioning of self-assembled Ge islands on Si(001). <i>Applied Physics Letters</i> , 1997 , 71, 1201-1203	3.4	221
347	Evolution of Ge islands on Si(001) during annealing. <i>Journal of Applied Physics</i> , 1999 , 85, 1159-1171	2.5	221
346	A hybrid nanomemristor/transistor logic circuit capable of self-programming. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 1699-703	11.5	213
345	Direct Observation of Nanoscale Switching Centers in Metal/Molecule/Metal Structures. <i>Nano Letters</i> , 2004 , 4, 569-572	11.5	209
344	Structure analysis of the Si(111) sqrt 3 x sqrt 3 R30 degrees -Ag surface. <i>Physical Review Letters</i> , 1991 , 66, 2762-2765	7.4	199
343	A Family of Electronically Reconfigurable Nanodevices. <i>Advanced Materials</i> , 2009 , 21, 3754-3758	24	195
342	Nanowires of four epitaxial hexagonal silicides grown on Si(001). <i>Journal of Applied Physics</i> , 2002 , 91, 3213-3218	2.5	184
341	Writing to and reading from a nano-scale crossbar memory based on memristors. <i>Nanotechnology</i> , 2009 , 20, 425204	3.4	183
340	High-Speed and Low-Energy Nitride Memristors. <i>Advanced Functional Materials</i> , 2016 , 26, 5290-5296	15.6	177
339	Long short-term memory networks in memristor crossbar arrays. <i>Nature Machine Intelligence</i> , 2019 , 1, 49-57	22.5	176
338	Growth and Structure of Chemically Vapor Deposited Ge Nanowires on Si Substrates. <i>Nano Letters</i> , 2004 , 4, 503-506	11.5	167
337	Reinforcement learning with analogue memristor arrays. <i>Nature Electronics</i> , 2019 , 2, 115-124	28.4	166
336	Hot-spot engineering in polygonal nanofinger assemblies for surface enhanced Raman spectroscopy. <i>Nano Letters</i> , 2011 , 11, 2538-42	11.5	165
335	Ultra-high-density silicon nanobridges formed between two vertical silicon surfaces. <i>Nanotechnology</i> , 2004 , 15, L5-L8	3.4	164
334	Engineering nonlinearity into memristors for passive crossbar applications. <i>Applied Physics Letters</i> , 2012 , 100, 113501	3.4	162
333	Gold nanofingers for molecule trapping and detection. <i>Journal of the American Chemical Society</i> , 2010 , 132, 12820-2	16.4	162

332	Nanoelectronic and Nanophotonic Interconnect. <i>Proceedings of the IEEE</i> , 2008 , 96, 230-247	14.3	162
331	Circuit fabrication at 17 nm half-pitch by nanoimprint lithography. <i>Nano Letters</i> , 2006 , 6, 351-4	11.5	158
330	3D composition of epitaxial nanocrystals by anomalous X-ray diffraction: observation of a Si-rich core in Ge domes on Si(100). <i>Physical Review Letters</i> , 2003 , 91, 176101	7.4	154
329	Melamine sensing in milk products by using surface enhanced Raman scattering. <i>Analytical Chemistry</i> , 2012 , 84, 9303-9	7.8	150
328	Formation of nanometer-scale grooves in silicon with a scanning tunneling microscope. <i>Science</i> , 1993 , 259, 1724-6	33.3	148
327	ISAAC: A Convolutional Neural Network Accelerator with In-Situ Analog Arithmetic in Crossbars 2016 ,		147
326	Electrical performance and scalability of Pt dispersed SiO ₂ nanometallic resistance switch. <i>Nano Letters</i> , 2013 , 13, 3213-7	11.5	146
325	CMOS-like logic in defective, nanoscale crossbars. <i>Nanotechnology</i> , 2004 , 15, 881-891	3.4	142
324	Hybrid nanoimprint-soft lithography with sub-15 nm resolution. <i>Nano Letters</i> , 2009 , 9, 2306-10	11.5	140
323	Local temperature redistribution and structural transition during joule-heating-driven conductance switching in VO ₂ . <i>Advanced Materials</i> , 2013 , 25, 6128-32	24	139
322	Top-down fabricated silicon nanowire sensors for real-time chemical detection. <i>Nanotechnology</i> , 2010 , 21, 015501	3.4	136
321	Thermophoresis/diffusion as a plausible mechanism for unipolar resistive switching in metal-oxide-metal memristors. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 107, 509-518	2.6	135
320	Chemical vapor deposition of Si nanowires nucleated by TiSi ₂ islands on Si. <i>Applied Physics Letters</i> , 2000 , 76, 562-564	3.4	133
319	Capacitive neural network with neuro-transistors. <i>Nature Communications</i> , 2018 , 9, 3208	17.4	132
318	Imaging the Elastic Nanostructure of Ge Islands by Ultrasonic Force Microscopy. <i>Physical Review Letters</i> , 1998 , 81, 1046-1049	7.4	132
317	Low-Power, Self-Rectifying, and Forming-Free Memristor with an Asymmetric Programming Voltage for a High-Density Crossbar Application. <i>Nano Letters</i> , 2016 , 16, 6724-6732	11.5	131
316	Metal/TiO ₂ interfaces for memristive switches. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 102, 785-789	2.6	128
315	The crossbar latch: Logic value storage, restoration, and inversion in crossbar circuits. <i>Journal of Applied Physics</i> , 2005 , 97, 034301	2.5	127

314	Correlation from randomness: quantitative analysis of ion-etched graphite surfaces using the scanning tunneling microscope. <i>Surface Science</i> , 1993 , 285, 157-180	1.8	125
313	Individual and Collective Electronic Properties of Ag Nanocrystals. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 10341-10347	3.4	124
312	An accurate locally active memristor model for S-type negative differential resistance in NbOx. <i>Applied Physics Letters</i> , 2016 , 108, 023505	3.4	123
311	State Dynamics and Modeling of Tantalum Oxide Memristors. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2194-2202	2.9	120
310	Four-dimensional address topology for circuits with stacked multilayer crossbar arrays. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 20155-8	11.5	118
309	Self-Assembly of Alkanethiol Molecules onto Platinum and Platinum Oxide Surfaces. <i>Langmuir</i> , 2003 , 19, 6744-6749	4	109
308	Silicon nanowires for sequence-specific DNA sensing: device fabrication and simulation. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1257-1263	2.6	109
307	Thermally Induced Breakdown of the Direct-Transition Model in Copper. <i>Physical Review Letters</i> , 1977 , 39, 302-305	7.4	108
306	PUMA 2019 ,		107
305	Mechanical properties of self-welded silicon nanobridges. <i>Applied Physics Letters</i> , 2005 , 87, 113102	3.4	106
304	Selective surface functionalization of silicon nanowires via nanoscale joule heating. <i>Nano Letters</i> , 2007 , 7, 3106-11	11.5	105
303	Impact-collision ion-scattering spectroscopy of Cu(110) and Cu(110)-(2 x 1)-O using 5-keV 6Li+. <i>Physical Review B</i> , 1986 , 33, 3856-3868	3.3	104
302	Orientation of CO on Pt(111) and Ni(111) Surfaces from Angle-Resolved Photoemission. <i>Physical Review Letters</i> , 1976 , 37, 1497-1500	7.4	104
301	One-kilobit cross-bar molecular memory circuits at 30-nm half-pitch fabricated by nanoimprint lithography. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1173-1178	2.6	103
300	Continuous electrical tuning of the chemical composition of TaO(x)-based memristors. <i>ACS Nano</i> , 2012 , 6, 2312-8	16.7	100
299	Solid phase equilibria in the Au-Ga-As, Au-Ga-Sb, Au-In-As, and Au-In-Sb ternaries. <i>Journal of Materials Research</i> , 1986 , 1, 352-360	2.5	96
298	Physical origins of current and temperature controlled negative differential resistances in NbO. <i>Nature Communications</i> , 2017 , 8, 658	17.4	94
297	In situ training of feed-forward and recurrent convolutional memristor networks. <i>Nature Machine Intelligence</i> , 2019 , 1, 434-442	22.5	93

296	Study of molecular trapping inside gold nanofinger arrays on surface-enhanced Raman substrates. <i>Journal of the American Chemical Society</i> , 2011 , 133, 8234-9	16.4	92
295	Coexistence of memristance and negative differential resistance in a nanoscale metal-oxide-metal system. <i>Advanced Materials</i> , 2011 , 23, 1730-3	24	91
294	Towards the silicon nanowire-based sensor for intracellular biochemical detection. <i>Biosensors and Bioelectronics</i> , 2007 , 22, 2065-70	11.8	88
293	Valence-band structure of silver along from angle-resolved photoemission. <i>Physical Review B</i> , 1979 , 19, 6164-6171	3.3	87
292	What's Next? [The end of Moore's law]. <i>Computing in Science and Engineering</i> , 2017 , 19, 7-13	1.5	86
291	Bulk versus surface effects in normal photoemission from Cu(110) in the range 32-60 eV. <i>Physical Review B</i> , 1978 , 17, 587-590	3.3	86
290	Measuring the switching dynamics and energy efficiency of tantalum oxide memristors. <i>Nanotechnology</i> , 2011 , 22, 505402	3.4	85
289	Self-aligned memristor cross-point arrays fabricated with one nanoimprint lithography step. <i>Nano Letters</i> , 2010 , 10, 2909-14	11.5	85
288	Fabrication of a 34 × 34 Crossbar Structure at 50 nm Half-pitch by UV-based Nanoimprint Lithography. <i>Nano Letters</i> , 2004 , 4, 1225-1229	11.5	84
287	Repeatable, accurate, and high speed multi-level programming of memristor 1T1R arrays for power efficient analog computing applications. <i>Nanotechnology</i> , 2016 , 27, 365202	3.4	84
286	Trilayer Tunnel Selectors for Memristor Memory Cells. <i>Advanced Materials</i> , 2016 , 28, 356-62	24	83
285	The switching location of a bipolar memristor: chemical, thermal and structural mapping. <i>Nanotechnology</i> , 2011 , 22, 254015	3.4	82
284	Electrical transport and thermometry of electroformed titanium dioxide memristive switches. <i>Journal of Applied Physics</i> , 2009 , 106, 124504	2.5	81
283	Nanoelectronic architectures. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1183-1195	2.6	81
282	Direct Observation of Localized Radial Oxygen Migration in Functioning Tantalum Oxide Memristors. <i>Advanced Materials</i> , 2016 , 28, 2772-6	24	80
281	Investigation of a model molecular-electronic rectifier with an evaporated Ti metal top contact. <i>Applied Physics Letters</i> , 2003 , 83, 3198-3200	3.4	78
280	Spectromicroscopy of tantalum oxide memristors. <i>Applied Physics Letters</i> , 2011 , 98, 242114	3.4	77
279	Conduction Channel Formation and Dissolution Due to Oxygen Thermophoresis/Diffusion in Hafnium Oxide Memristors. <i>ACS Nano</i> , 2016 , 10, 11205-11210	16.7	75

278	Cones fabricated by 3D nanoimprint lithography for highly sensitive surface enhanced Raman spectroscopy. <i>Nanotechnology</i> , 2010 , 21, 255502	3.4	74
277	A smooth optical superlens. <i>Applied Physics Letters</i> , 2010 , 96, 043102	3.4	70
276	Current-controlled negative differential resistance due to Joule heating in TiO ₂ . <i>Applied Physics Letters</i> , 2011 , 99, 202104	3.4	70
275	Sub-10 nm nanoimprint lithography by wafer bowing. <i>Nano Letters</i> , 2008 , 8, 3865-9	11.5	70
274	Angle-resolved photoemission from valence bands of Cu and Au single crystals using 32-200-eV synchrotron radiation. <i>Physical Review B</i> , 1976 , 14, 5144-5155	3.3	70
273	Voltage divider effect for the improvement of variability and endurance of TaO(x) memristor. <i>Scientific Reports</i> , 2016 , 6, 20085	4.9	70
272	Quantized conductance coincides with state instability and excess noise in tantalum oxide memristors. <i>Nature Communications</i> , 2016 , 7, 11142	17.4	69
271	Carbon K-edge fine structure in graphite foils and in thin-film contaminants on metal surfaces. <i>Physical Review B</i> , 1980 , 21, 2267-2273	3.3	69
270	Thermodynamics of coherently-strained GexSi1-x nanocrystals on Si(001): alloy composition and island formation. <i>Nano Letters</i> , 2007 , 7, 223-6	11.5	68
269	Optical metamaterials at near and mid-IR range fabricated by nanoimprint lithography. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 87, 143-150	2.6	68
268	Atomic force microscope study of growth kinetics: Scaling in the heteroepitaxy of CuCl on CaF ₂ (111). <i>Physical Review Letters</i> , 1994 , 72, 3374-3377	7.4	68
267	Sequential electronic and structural transitions in VO ₂ observed using X-ray absorption spectromicroscopy. <i>Advanced Materials</i> , 2014 , 26, 7505-9	24	67
266	A novel interconnection technique for manufacturing nanowire devices. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1133-1140	2.6	67
265	Combined helium ion beam and nanoimprint lithography attains 4 nm half-pitch dense patterns. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2012 , 30, 06F304	1.3	66
264	Two- and Three-Terminal Resistive Switches: Nanometer-Scale Memristors and Memistors. <i>Advanced Functional Materials</i> , 2011 , 21, 2660-2665	15.6	64
263	Cross-linked polymer replica of a nanoimprint mold at 30 nm half-pitch. <i>Nano Letters</i> , 2005 , 5, 179-82	11.5	64
262	Diameter control of Ti-catalyzed silicon nanowires. <i>Journal of Crystal Growth</i> , 2004 , 267, 613-618	1.6	64
261	Feedback write scheme for memristive switching devices. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 102, 973-982	2.6	63

260	Synthesis of thin silicon nanowires using gold-catalyzed chemical vapor deposition. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1225-1229	2.6	63
259	Surface-structure analysis of Au overlayers on Si by impact-collision ion-scattering spectroscopy: $\sqrt{3} \times \sqrt{3}$ and 6×6 Si(111)/Au. <i>Physical Review B</i> , 1988 , 38, 4022-4032	3.3	63
258	Observation of two resistance switching modes in TiO ₂ memristive devices electroformed at low current. <i>Nanotechnology</i> , 2011 , 22, 254007	3.4	62
257	Lognormal switching times for titanium dioxide bipolar memristors: origin and resolution. <i>Nanotechnology</i> , 2011 , 22, 095702	3.4	61
256	A physical model of switching dynamics in tantalum oxide memristive devices. <i>Applied Physics Letters</i> , 2013 , 102, 223502	3.4	59
255	High-resolution angle-resolved photoemission study of the Ag band structure along Lambda. <i>Physical Review B</i> , 1985 , 32, 3465-3471	3.3	59
254	Nitride memristors. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 109, 1-4	2.6	58
253	Radiation Hardness of TiO_2 Memristive Junctions. <i>IEEE Transactions on Nuclear Science</i> , 2010 , 57, 1640-1643	1.7	58
252	Dopant Control by Atomic Layer Deposition in Oxide Films for Memristive Switches. <i>Chemistry of Materials</i> , 2011 , 23, 123-125	9.6	56
251	A memristor-based nonvolatile latch circuit. <i>Nanotechnology</i> , 2010 , 21, 235203	3.4	56
250	Study of SERS chemical enhancement factors using buffer layer assisted growth of metal nanoparticles on self-assembled monolayers. <i>Journal of the American Chemical Society</i> , 2009 , 131, 6310-16.4	16.4	56
249	Midinfrared metamaterials fabricated by nanoimprint lithography. <i>Applied Physics Letters</i> , 2007 , 90, 063107	3.07	56
248	Entropy-driven loss of gas phase group V species from gold/III-V compound semiconductor systems. <i>Journal of Materials Research</i> , 1986 , 1, 343-351	2.5	56
247	Low energy Ar ion bombardment damage of Si, GaAs, and InP surfaces. <i>Solid State Communications</i> , 1982 , 41, 153-156	1.6	56
246	Characterization of electroforming-free titanium dioxide memristors. <i>Beilstein Journal of Nanotechnology</i> , 2013 , 4, 467-73	3	54
245	Localized temperature and chemical reaction control in nanoscale space by nanowire array. <i>Nano Letters</i> , 2011 , 11, 4818-25	11.5	52
244	Structural and chemical characterization of TiO ₂ memristive devices by spatially-resolved NEXAFS. <i>Nanotechnology</i> , 2009 , 20, 485701	3.4	52
243	Valence- and conduction-band structure of the sapphire (11-bar02) surface. <i>Physical Review B</i> , 1985 , 32, 1237-1247	3.3	51

242	Surface depletion thickness of p-doped silicon nanowires grown using metal-catalysed chemical vapour deposition. <i>Nanotechnology</i> , 2006 , 17, S240-S245	3.4	50
241	Angle-resolved photoelectron spectroscopy investigation of intrinsic surface states on the Ge(001)-(2 × 1) reconstructed surface. <i>Physical Review B</i> , 1983 , 27, 3924-3926	3.3	50
240	Properties of aluminum epitaxial growth on GaAs. <i>Journal of Applied Physics</i> , 1981 , 52, 7317-7320	2.5	50
239	Oxygen migration during resistance switching and failure of hafnium oxide memristors. <i>Applied Physics Letters</i> , 2017 , 110, 103503	3.4	49
238	Ordered arrays of rare-earth silicide nanowires on Si(001). <i>Journal of Crystal Growth</i> , 2003 , 251, 657-661	1.6	48
237	Electronic structure and transport measurements of amorphous transition-metal oxides: observation of Fermi glass behavior. <i>Applied Physics A: Materials Science and Processing</i> , 2012 , 107, 1-11	2.6	47
236	Surface properties of platinum thin films as a function of plasma treatment conditions. <i>Surface Science</i> , 2003 , 529, 410-418	1.8	46
235	Electrical characterization of Al/AlO _x /molecule/Ti/Al devices. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 80, 1355-1362	2.6	45
234	Atomic layer deposition of aluminum oxide on hydrophobic and hydrophilic surfaces. <i>Journal of Crystal Growth</i> , 2007 , 299, 218-222	1.6	44
233	Defect-tolerant interconnect to nanoelectronic circuits: internally redundant demultiplexers based on error-correcting codes. <i>Nanotechnology</i> , 2005 , 16, 869-882	3.4	44
232	Nanometer-resolved spatial variations in the Schottky barrier height of a Au/n-type GaAs diode. <i>Physical Review B</i> , 1994 , 49, 16474-16479	3.3	43
231	Evolution of thermodynamic potentials in closed and open nanocrystalline systems: Ge-Si:Si(001) islands. <i>Physical Review Letters</i> , 2008 , 100, 226101	7.4	41
230	Atomic cross-section effects in soft-x-ray photoemission from Ag valence bands. <i>Physical Review B</i> , 1976 , 14, 2411-2416	3.3	41
229	Sub-15nm nanoimprint molds and pattern transfer. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, 2837		40
228	A 14-ps full width at half maximum high-speed photoconductor fabricated with intersecting InP nanowires on an amorphous surface. <i>Applied Physics A: Materials Science and Processing</i> , 2008 , 91, 1-5	2.6	40
227	Line-shape and lifetime studies of exciton luminescence from confined CuCl thin films. <i>Physical Review B</i> , 1991 , 44, 5827-5833	3.3	40
226	A Family of Stateful Memristor Gates for Complete Cascading Logic. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019 , 66, 4348-4355	3.9	39
225	Hybrid CMOS/memristor circuits 2010 ,		39

224	Mixed-basis band-structure interpolation scheme applied to the fluorite-structure compounds NiSi ₂ , AuAl ₂ , AuGa ₂ , and AuIn ₂ . <i>Physical Review B</i> , 1985 , 31, 3460-3468	3.3	39
223	Angle- and energy-dependent core-level photoelectron energy loss studies in Al and In. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1977 , 12, 477-492	1.7	39
222	X-ray absorption fine structure above the Ti L edge. <i>Physical Review B</i> , 1979 , 19, 1762-1768	3.3	39
221	History Erase Effect in a Non-Volatile Memristor. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2016 , 63, 389-400	3.9	39
220	Memristive devices in computing system. <i>ACM Journal on Emerging Technologies in Computing Systems</i> , 2013 , 9, 1-20	1.7	38
219	Charge disproportionate molecular redox for discrete memristive and memcapacitive switching. <i>Nature Nanotechnology</i> , 2020 , 15, 380-389	28.7	37
218	Phase transitions enable computational universality in neuristor-based cellular automata. <i>Nanotechnology</i> , 2013 , 24, 384002	3.4	37
217	Force modulation of tunnel gaps in metal oxide memristive nanoswitches. <i>Applied Physics Letters</i> , 2009 , 95, 113503	3.4	36
216	. <i>IEEE Nanotechnology Magazine</i> , 2006 , 5, 523-529	2.6	36
215	Electron localization and superconductivity in very thin epitaxially grown Ag films on Ge (001). <i>Solid State Communications</i> , 1984 , 51, 865-869	1.6	36
214	Chemical vapor deposition of CoGa and PtGa ₂ thin films from mixed-metalorganometallic compounds. <i>Applied Physics Letters</i> , 1989 , 55, 2760-2762	3.4	35
213	Diamond nitrogen-vacancy centers created by scanning focused helium ion beam and annealing. <i>Applied Physics Letters</i> , 2013 , 103, 081906	3.4	34
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