Michel Bosman

List of Publications by Citations

173 papers	5,935 citations	40 h-index	73 g-index
184 ext. papers	6,746 ext. citations	7.7 avg, IF	5.78 L-index

#	Paper	IF	Citations
173	Three-dimensional tubular arrays of MnO2⊠NiO nanoflakes with high areal pseudocapacitance. *Journal of Materials Chemistry*, **2012**, 22, 2419-2426		382
172	Quantum plasmon resonances controlled by molecular tunnel junctions. *Science*, **2014**, 343, 1496-9	33.3	335
171	Nanoplasmonics: classical down to the nanometer scale. *Nano Letters*, **2012**, 12, 1683-9	11.5	326
170	Mapping surface plasmons at the nanometre scale with an electron beam. *Nanotechnology*, **2007**, 18, 165505	3.4	240
169	Au nanoparticle-modified MoS2 nanosheet-based photoelectrochemical cells for water splitting. *Small*, **2014**, 10, 3537-43	11	234
168	Mapping chemical and bonding information using multivariate analysis of electron energy-loss spectrum images. *Ultramicroscopy*, **2006**, 106, 1024-32	3.1	232
167	Multistep nucleation of nanocrystals in aqueous solution. *Nature Chemistry*, **2017**, 9, 77-82	17.6	218
166	Two-dimensional mapping of chemical information at atomic resolution. *Physical Review Letters*, **2007**, 99, 086102	7.4	217
165	Stabilization of 4H hexagonal phase in gold nanoribbons. *Nature Communications*, **2015**, 6, 7684	17.4	165
164	Surface modification-induced phase transformation of hexagonal close-packed gold square sheets. *Nature Communications*, **2015**, 6, 6571	17.4	157
163	Direct evidence of plasmon enhancement on photocatalytic hydrogen generation over Au/Pt-decorated TiO2 nanofibers. *Nanoscale*, **2014**, 6, 5217-22	7.7	130
162	Colloidal nanocrystals of wurtzite-type Cu2ZnSnS4: facile noninjection synthesis and formation mechanism. *Chemistry - A European Journal*, **2012**, 18, 3127-31	4.8	130
161	Surface plasmon damping quantified with an electron nanoprobe. *Scientific Reports*, **2013**, 3, 1312	4.9	116
160	Gold Coating of Silver Nanoprisms. *Advanced Functional Materials*, **2012**, 22, 849-854	15.6	108
159	Direct observation of the nanoscale Kirkendall effect during galvanic replacement reactions. *Nature Communications*, **2017**, 8, 1224	17.4	107
158	Fowler-Nordheim tunneling induced charge transfer plasmons between nearly touching nanoparticles. *ACS Nano*, **2013**, 7, 707-16	16.7	103
157	One-pot synthesis of Cu1.94S-CdS and Cu1.94S-Zn(x)Cd(1-x)S nanodisk heterostructures. *Journal of the American Chemical Society*, **2011**, 133, 2052-5	16.4	95

156	An experimental and theoretical investigation of the anisotropic branching in gold nanocrosses. *Nanoscale*, **2016**, 8, 543-52	7.7	84
155	Encapsulated annealing: enhancing the plasmon quality factor in lithographically-defined nanostructures. *Scientific Reports*, **2014**, 4, 5537	4.9	81
154	Intrinsic nanofilamentation in resistive switching. *Journal of Applied Physics*, **2013**, 113, 114503	2.5	64
153	Surfactant-free sub-2 nm ultrathin triangular gold nanoframes. *Small*, **2013**, 9, 2880-6	11	62
152	Optimizing EELS acquisition. *Ultramicroscopy*, **2008**, 108, 837-46	3.1	60
151	Visible Surface Plasmon Modes in Single Bi□Te□Nanoplate. *Nano Letters*, **2015**, 15, 8331-5	11.5	57
150	An epitaxial ferroelectric tunnel junction on silicon. *Advanced Materials*, **2014**, 26, 7185-9	24	55
149	Growth of Nb-Doped Monolayer WS by Liquid-Phase Precursor Mixing. *ACS Nano*, **2019**, 13, 10768-10775	16.7	54
148	Interface and Surface Cation Stoichiometry Modified by Oxygen Vacancies in Epitaxial Manganite Films. *Advanced Functional Materials*, **2012**, 22, 4312-4321	15.6	54
147	Actively Tunable Visible Surface Plasmons in Bi2 Te3 and their Energy-Harvesting Applications. *Advanced Materials*, **2016**, 28, 3138-44	24	53
146	Scrolling graphene into nanofluidic channels. *Lab on A Chip*, **2013**, 13, 2874-8	7.2	51
145	Real-Time Dynamics of Galvanic Replacement Reactions of Silver Nanocubes and Au Studied by Liquid-Cell Transmission Electron Microscopy. *ACS Nano*, **2016**, 10, 7689-95	16.7	51
144	Room temperature stable CO -free H production from methanol with magnesium oxide nanophotocatalysts. *Science Advances*, **2016**, 2, e1501425	14.3	49
143	Electron-energy loss study of nonlocal effects in connected plasmonic nanoprisms. *ACS Nano*, **2013**, 7, 6287-96	16.7	49
142	Multimodal plasmonics in fused colloidal networks. *Nature Materials*, **2015**, 14, 87-94	27	48
141	Intrinsic resistance switching in amorphous silicon oxide for high performance SiOx ReRAM devices. *Microelectronic Engineering*, **2017**, 178, 98-103	2.5	45
140	In Situ Kinetic and Thermodynamic Growth Control of Au-Pd Core-Shell Nanoparticles. *Journal of the American Chemical Society*, **2018**, 140, 11680-11685	16.4	45
139	Edge-Gold-Coated Silver Nanoprisms: Enhanced Stability and Applications in Organic Photovoltaics and Chemical Sensing. *Journal of Physical Chemistry C*, **2014**, 118, 12459-12468	3.8	45

138	Nanoscale Transformations in Metastable, Amorphous, Silicon-Rich Silica. *Advanced Materials*, **2016**, 28, 7486-93	24	43
137	Synthesis of Spiky Ag□Au Octahedral Nanoparticles and Their Tunable Optical Properties. *Journal of Physical Chemistry C*, **2013**, 117, 16640-16649	3.8	42
136	Heterophase fcc-2H-fcc gold nanorods. *Nature Communications*, **2020**, 11, 3293	17.4	41
135	Light splitting in nanoporous gold and silver. *ACS Nano*, **2012**, 6, 319-26	16.7	41
134	Real-Time Imaging of the Formation of Au-Ag Core-Shell Nanoparticles. *Journal of the American Chemical Society*, **2016**, 138, 5190-3	16.4	41
133	Evidence for compliance controlled oxygen vacancy and metal filament based resistive switching mechanisms in RRAM. *Microelectronic Engineering*, **2011**, 88, 1124-1128	2.5	40
132	Ternary cobalt-iron phosphide nanocrystals with controlled compositions, properties, and morphologies from nanorods and nanorice to split nanostructures. *Chemistry - A European Journal*, **2011**, 17, 5982-8	4.8	39
131	Conductive Atomic Force Microscope Study of Bipolar and Threshold Resistive Switching in 2D Hexagonal Boron Nitride Films. *Scientific Reports*, **2018**, 8, 2854	4.9	38
130	A circuit model for plasmonic resonators. *Optics Express*, **2014**, 22, 9809-19	3.3	38
129	Interlayer interactions in 2D WS/MoS heterostructures monolithically grown by in situ physical vapor deposition. *Nanoscale*, **2018**, 10, 22927-22936	7.7	38
128	Study of preferential localized degradation and breakdown of HfO2/SiOx dielectric stacks at grain boundary sites of polycrystalline HfO2 dielectrics. *Microelectronic Engineering*, **2013**, 109, 364-369	2.5	34
127	Anomalous resistive switching in memristors based on two-dimensional palladium diselenide using heterophase grain boundaries. *Nature Electronics*, **2021**, 4, 348-356	28.4	34
126	Role of oxygen vacancies in HfO2-based gate stack breakdown. *Applied Physics Letters*, **2010**, 96, 172901	3.4	33
125	Intrinsic Resistance Switching in Amorphous Silicon Suboxides: The Role of Columnar Microstructure. *Scientific Reports*, **2017**, 7, 9274	4.9	31
124	Plasma density induced formation of nanocrystals in physical vapor deposited carbon films. *Carbon*, **2011**, 49, 1733-1744	10.4	30
123	Facile synthesis of luminescent AgInS□ZnS solid solution nanorods. *Small*, **2013**, 9, 2689-95	11	29
122	Direct visualization and in-depth physical study of metal filament formation in percolated high-□ dielectrics. *Applied Physics Letters*, **2010**, 96, 022903	3.4	29
121	Substitutional doping in 2D transition metal dichalcogenides. *Nano Research*, **2021**, 14, 1668-1681	10	29

120	Modified Percolation Model for Polycrystalline High-$ kappa$ Gate Stack With Grain Boundary Defects. *IEEE Electron Device Letters*, **2011**, 32, 78-80	4.4	28
119	Grain boundary assisted degradation and breakdown study in cerium oxide gate dielectric using scanning tunneling microscopy. *Applied Physics Letters*, **2011**, 98, 072902	3.4	28
118	Evolution of Filament Formation in Ni/HfO2/SiOx/Si-Based RRAM Devices. *Advanced Electronic Materials*, **2015**, 1, 1500130	6.4	27
117	Field emission enhancement and microstructural changes of carbon films by single pulse laser irradiation. *Carbon*, **2011**, 49, 1018-1024	10.4	26
116	Resistive switching in NiSi gate metal-oxide-semiconductor transistors. *Applied Physics Letters*, **2010**, 97, 202904	3.4	25
115	Very Low Reset Current for an RRAM Device Achieved in the Oxygen-Vacancy-Controlled Regime. *IEEE Electron Device Letters*, **2011**, 32, 716-718	4.4	25
114	Sustainable Fuel Production from Ambient Moisture via Ferroelectrically Driven MoS Nanosheets. *Advanced Materials*, **2020**, 32, e2000971	24	24
113	Atomic Scale Modulation of Self-Rectifying Resistive Switching by Interfacial Defects. *Advanced Science*, **2018**, 5, 1800096	13.6	24
112	The distribution of chemical elements in Al- or La-capped high- metal gate stacks. *Applied Physics Letters*, **2010**, 97, 103504	3.4	23
111	Uncorrelated multiple conductive filament nucleation and rupture in ultra-thin high- dielectric based resistive random access memory. *Applied Physics Letters*, **2011**, 99, 093502	3.4	23
110	Silicon surface passivation by aluminium oxide studied with electron energy loss spectroscopy. *Physica Status Solidi - Rapid Research Letters*, **2013**, 7, 937-941	2.5	22
109	High hardness BaCb-(BxOy/BN) composites with 3D mesh-like fine grain-boundary structure by reactive spark plasma sintering. *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 959-65	1.3	22
108	Quantitative, nanoscale mapping of sp2 percentage and crystal orientation in carbon multilayers. *Carbon*, **2009**, 47, 94-101	10.4	20
107	Dual phases of crystalline and electronic structures in the nanocrystalline perovskite CsPbBr3. *NPG Asia Materials*, **2019**, 11,	10.3	20
106	Nanoscale band gap spectroscopy on ZnO and GaN-based compounds with a monochromated electron microscope. *Applied Physics Letters*, **2009**, 95, 101110	3.4	19
105	Photoactivity and Stability Co-Enhancement: When Localized Plasmons Meet Oxygen Vacancies in MgO. *Small*, **2018**, 14, e1803233	11	18
104	Percolative Model and Thermodynamic Analysis of Oxygen-Ion-Mediated Resistive Switching. *IEEE Electron Device Letters*, **2012**, 33, 712-714	4.4	17
103	Oxygen-Soluble Gate Electrodes for Prolonged High-$ kappa$ Gate-Stack Reliability. *IEEE Electron Device Letters*, **2011**, 32, 252-254	4.4	17

102	Coherent Sb/CuTe Core/Shell Nanostructure with Large Strain Contrast Boosting the Thermoelectric Performance of n-Type PbTe. *Advanced Functional Materials*, **2021**, 31, 2007340	15.6	17
101	Physical analysis of breakdown in high-□/metal gate stacks using TEM/EELS and STM for reliability enhancement (invited). *Microelectronic Engineering*, **2011**, 88, 1365-1372	2.5	16
100	New developments in electron energy loss spectroscopy. *Microscopy Research and Technique*, **2007**, 70, 211-9	2.8	15
99	Charge transfer plasmon resonances across silver□molecule□silver junctions: estimating the terahertz conductance of molecules at near-infrared frequencies. *RSC Advances*, **2016**, 6, 70884-70894	3.7	14
98	Fabrication of suspended metal-dielectric-metal plasmonic nanostructures. *Nanotechnology*, **2014**, 25, 135303	3.4	14
97	Nanoscale phase domain structure and associated device performance of organic solar cells based on a diketopyrrolopyrrole polymer. *RSC Advances*, **2013**, 3, 20113	3.7	14
96	Nucleation dynamics of water nanodroplets. *Microscopy and Microanalysis*, **2014**, 20, 407-15	0.5	14
95	Thermal conductivity of nanocrystalline carbon films studied by pulsed photothermal reflectance. *Carbon*, **2012**, 50, 1428-1431	10.4	14
94	A plasmonic multi-logic gate platform based on sequence-specific binding of estrogen receptors and gold nanorods. *Nanoscale*, **2016**, 8, 19973-19977	7.7	14
93	$nhbox{-ZnO}/nhbox{-GaAs}$ Heterostructured White Light-Emitting Diode: Nanoscale Interface Analysis and Electroluminescence Studies. *IEEE Transactions on Electron Devices*, **2010**, 57, 129-133	2.9	13
92	Molecular Coatings for Stabilizing Silver and Gold Nanocubes under Electron Beam Irradiation. *Langmuir*, **2017**, 33, 1189-1196	4	12
91	Plasmon-Enhanced Resonant Photoemission Using Atomically Thick Dielectric Coatings. *ACS Nano*, **2020**, 14, 8806-8815	16.7	12
90	Boron Vacancies Causing Breakdown in 2D Layered Hexagonal Boron Nitride Dielectrics. *IEEE Electron Device Letters*, **2019**, 40, 1321-1324	4.4	12
89	Fast Electrical Modulation in a Plasmonic-Enhanced, V-Pit-Textured, Light-Emitting Diode. *Advanced Optical Materials*, **2015**, 3, 1703-1709	8.1	12
88	Spin-polarized wide electron slabs in functionally graded polar oxide heterostructures. *Scientific Reports*, **2012**, 2, 533	4.9	12
87	Filamentation Mechanism of Resistive Switching in Fully Silicided High- $kappa$ Gate Stacks. *IEEE Electron Device Letters*, **2011**, 32, 455-457	4.4	12
86	Using post-breakdown conduction study in a MIS structure to better understand the resistive switching mechanism in an MIM stack. *Nanotechnology*, **2011**, 22, 455702	3.4	12
85	Chemical insight into origin of forming-free resistive random-access memory devices. *Applied Physics Letters*, **2011**, 99, 133504	3.4	12

84	Applications and theoretical simulation of low-loss electron energy-loss spectra. *Materials Science and Technology*, **2008**, 24, 651-659	1.5	12
83	Highly Luminescent Heterostructured Copper-Doped Zinc Sulfide Nanocrystals for Application in Cancer Cell Labeling. *ChemPhysChem*, **2016**, 17, 2489-95	3.2	12
82	Compliance current dominates evolution of NiSi2 defect size in Ni/dielectric/Si RRAM devices. *Microelectronics Reliability*, **2016**, 61, 71-77	1.2	11
81	Impact of local structural and electrical properties of grain boundaries in polycrystalline HfO2 on reliability of SiOx interfacial layer. *Microelectronics Reliability*, **2014**, 54, 1712-1717	1.2	11
80	Textured V-Pit Green Light Emitting Diode as a Wavelength-Selective Photodetector for Fast Phosphor-Based White Light Modulation. *ACS Photonics*, **2017**, 4, 443-448	6.3	10
79	An oxygen vacancy mediated Ag reduction and nucleation mechanism in SiO2 RRAM devices. *Microelectronics Reliability*, **2019**, 98, 144-152	1.2	10
78	Statistics of retention failure in the low resistance state for hafnium oxide RRAM using a Kinetic Monte Carlo approach. *Microelectronics Reliability*, **2015**, 55, 1422-1426	1.2	10
77	Conductive filament formation at grain boundary locations in polycrystalline HfO2 -based MIM stacks: Computational and physical insight. *Microelectronics Reliability*, **2016**, 64, 204-209	1.2	10
76	Role of grain boundary percolative defects and localized trap generation on the reliability statistics of high- gate dielectric stacks **2012**,		10
75	. *IEEE Transactions on Electron Devices*, **2011**, 58, 74-79	2.9	10
74	Crystallization of Sputter-Deposited Amorphous (FeSi2)1 Alx Thin Films. *Crystal Growth and Design*, **2015**, 15, 1692-1696	3.5	9
73	Mechanism of soft and hard breakdown in hexagonal boron nitride 2D dielectrics **2018**,		9
72	Synthesis of Silver Nanoparticles with Monovalently Functionalized Self-Assembled Monolayers. *Australian Journal of Chemistry*, **2012**, 65, 275	1.2	9
71	Observation of switching behaviors in post-breakdown conduction in NiSi-gated stacks **2009**,		9
70	Silica: Nanoscale Transformations in Metastable, Amorphous, Silicon-Rich Silica (Adv. Mater. 34/2016). *Advanced Materials*, **2016**, 28, 7549-7549	24	9
69	Plasmon resonances and electron phase shifts near Au nanospheres. *Applied Physics Letters*, **2008**, 93, 101909	3.4	8
68	CAFM based spectroscopy of stress-induced defects in HfO2 with experimental evidence of the clustering model and metastable vacancy defect state **2016**,		8
67	Resilience of ultra-thin oxynitride films to percolative wear-out and reliability implications for high- stacks at low voltage stress. *Journal of Applied Physics*, **2013**, 114, 094504	2.5	7

66	Feasibility of SILC Recovery in Sub-10-Å EOT Advanced Metal Gate–High-$kappa$ Stacks. *IEEE Electron Device Letters*, **2013**, 34, 1053-1055	4.4	6
65	Subthreshold characteristics of ballistic electron emission spectra. *Journal of Applied Physics*, **2012**, 111, 013701	2.5	6
64	Nanoscale mapping of optically inaccessible bound-states-in-the-continuum.. *Light: Science and Applications*, **2022**, 11, 20	16.7	6
63	Localized Probing of Dielectric Breakdown in Multilayer Hexagonal Boron Nitride. *ACS Applied Materials & Interfaces*, **2020**, 12, 55000-55010	9.5	6
62	Spontaneous Atomic Sites Formation in Wurtzite CoO Nanorods for Robust CO 2 Photoreduction. *Advanced Functional Materials*,2109693	15.6	6
61	Stochastic failure model for endurance degradation in vacancy modulated HfOx RRAM using the percolation cell framework **2014**,		5
60	Postbreakdown Gate-Current Low-Frequency Noise Spectrum as a Detection Tool for High-$kappa$ and Interfacial Layer Breakdown. *IEEE Electron Device Letters*, **2010**, 31, 1035-1037	4.4	5
59	Electrostatically Tunable Near-Infrared Plasmonic Resonances in Solution-Processed Atomically Thin NbSe. *Advanced Materials*, **2021**, 33, e2101950	24	5
58	Understanding the switching mechanism in RRAM using in-situ TEM **2016**,		5
57	Modeling of Diffusion and Incorporation of Interstitial Oxygen Ions at the TiN/SiO Interface. *ACS Applied Materials & Interfaces*, **2019**, 11, 36232-36243	9.5	4
56	Leakage current and structural analysis of annealed HfO2/La2O3 and CeO2/La2O3 dielectric stacks: A nanoscopic study. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2014**, 32, 03D125	1.3	4
55	Real-time analysis of ultra-thin gate dielectric breakdown and recovery - A reality **2013**,		4
54	Threshold shift observed in resistive switching in metal-oxide-semiconductor transistors and the effect of forming gas anneal. *Applied Physics Letters*, **2011**, 99, 232909	3.4	4
53	Particle simulation of plasmons. *Nanophotonics*, **2020**, 9, 3303-3313	6.3	4
52	Electron dynamics in plasmons. *Nanoscale*, **2021**, 13, 2801-2810	7.7	4
51	An SEM/STM based nanoprobing and TEM study of breakdown locations in HfO2/SiOx dielectric stacks for failure analysis. *Microelectronics Reliability*, **2015**, 55, 1450-1455	1.2	3
50	Monte Carlo model of reset stochastics and failure rate estimation of read disturb mechanism in HfOx RRAM **2015**,		3
49	Stochastic Modeling of FinFET Degradation Based on a Resistor Network Embedded Metropolis Monte Carlo Method. *IEEE Transactions on Electron Devices*, **2018**, 65, 440-447	2.9	3

48	3D characterization of hard breakdown in RRAM device. *Microelectronic Engineering*, **2019**, 216, 111042	2.5	3
47	Variability model for forming process in oxygen vacancy modulated high- based resistive switching memory devices. *Microelectronics Reliability*, **2014**, 54, 2266-2271	1.2	3
46	Electronic properties of ultrathin high- dielectrics studied by ballistic electron emission microscopy. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2011**, 29, 052201	1.3	3
45	Effect of surface contamination on electron tunneling in the high bias range. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2012**, 30, 041402	2.9	3
44	Theoretical interpretation of electron energy-loss spectroscopic images. *AIP Conference Proceedings*, **2008**,	0	3
43	A scheme for simulating multi-level phase change photonics materials. *Npj Computational Materials*, **2021**, 7,	10.9	3
42	Unlocking the origin of compositional fluctuations in InGaN light emitting diodes. *Physical Review Materials*, **2021**, 5,	3.2	3
41	Gate-Defined Quantum Confinement in CVD 2D WS. *Advanced Materials*, **2021**, e2103907	24	3
40	Spectroscopy of SILC trap locations and spatial correlation study of percolation path in the high- and interfacial layer **2015**,		2
39	Water Splitting: Au Nanoparticle-Modified MoS2 Nanosheet-Based Photoelectrochemical Cells for Water Splitting (Small 17/2014). *Small*, **2014**, 10, 3536-3536	11	2
38	Impact of local variations in high-k dielectric on breakdown and recovery characteristics of advanced gate stacks **2013**,		2
37	Nanoplasmonics in the TEM. *Microscopy and Microanalysis*, **2015**, 21, 2219-2220	0.5	2
36	The electronic barrier height of silicon native oxides at different oxidation stages. *Journal of Applied Physics*, **2012**, 111, 054111	2.5	2
35	Triggering voltage for post-breakdown random telegraph noise in HfLaO dielectric metal gate metal-oxide-semiconductor field effect transistors and its reliability implications. *Journal of Applied Physics*, **2012**, 111, 024101	2.5	2
34	Multiferroicity in manganite/titanate superlattices determined by oxygen pressure-mediated cation defects. *Journal of Applied Physics*, **2013**, 113, 164302	2.5	2
33	The effect of high deposition energy of carbon overcoats on perpendicular magnetic recording media. *Applied Physics Letters*, **2013**, 103, 161604	3.4	2
32	Annular electron energy-loss spectroscopy in the scanning transmission electron microscope. *Ultramicroscopy*, **2011**, 111, 1540-6	3.1	2
31	Localized degradation and breakdown study of cerium-oxide high- gate dielectric material using scanning tunneling microscopy **2010**,		2

30	Study of ion beam damage on FIB prepared TEM samples **2010**,		2
29	New insight into the TDDB and breakdown reliability of novel high- gate dielectric stacks **2010**,		2
28	Barrier height determination of Au/Oxidized GaAs/n-GaAs using ballistic electron emission spectroscopy. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2012**, 30, 011805	1.3	2
27	Dielectric breakdown Recovery in logic and resistive switching in memory Bridging the gap between the two phenomena **2012**,		2
26	Measurements of composition and electronic structure in an operating light-emitting diode using analytical electron microscopy. *Applied Physics Letters*, **2004**, 84, 1371-1373	3.4	2
25	**2016**,		2
24	Light-Emitting V-Pits: An Alternative Approach toward Luminescent Indium-Rich InGaN Quantum Dots. *ACS Photonics*,	6.3	2
23	Sustainable Fuel Production: Sustainable Fuel Production from Ambient Moisture via Ferroelectrically Driven MoS2 Nanosheets (Adv. Mater. 25/2020). *Advanced Materials*, **2020**, 32, 2070188	24	1
22	Correlation of Dielectric Breakdown and Nanoscale Adhesion in Silicon Dioxide Thin Films **2020**,		1
21	Ultrasmall Designed Plasmon Resonators by Fused Colloidal Nanopatterning. *ACS Applied Materials & Interfaces*, **2019**, 11, 45207-45213	9.5	1
20	Giant Photoinduced Chirality in Thin Film Ge2Sb2Te5. *Physica Status Solidi - Rapid Research Letters*, **2019**, 13, 1900449	2.5	1
19	Impact of ionic drift and vacancy defect passivation on TDDB statistics and lifetime enhancement of metal gate high- stacks **2014**,		1
18	Multi-layered liposomes as optical resonators **2013**,		1
17	Localized Random Telegraphic Noise Study in HfO2 dielectric stacks using Scanning Tunneling Microscopy Analysis of process and stress-induced traps **2015**,		1
16	Spatial correlation of conductive filaments for multiple switching cycles in CBRAM **2014**,		1
15	Nanoscale physical analysis of localized breakdown events in HfO2/SiOX dielectric stacks: A correlation study of STM induced BD with C-AFM and TEM **2012**,		1
14	Study of charge distribution and charge loss in dual-layer metal-nanocrystal-embedded high- /SiO2 gate stack. *Applied Physics Letters*, **2012**, 100, 193109	3.4	1
13	Random telegraph noise reduction in metal gate high- stacks by bipolar switching and the performance boosting technique **2011**,		1

List of Publications

12	Impurity-Induced Emission in Re-Doped WS Monolayers. *Nano Letters*, **2021**, 21, 5293-5300	11.5	1
11	Multiphysics based 3D percolation framework model for multi-stage degradation and breakdown in high-□nterfacial layer stacks **2016**,		1
10	Controlling phase transition in WSe2 towards ideal n-type transistor. *Nano Research*, **2021**, 14, 2703-2710	10	1
9	Theoretical Study of Ag Interactions in Amorphous Silica RRAM Devices **2018**,		1
8	The nature of column boundaries in micro-structured silicon oxide nanolayers. *APL Materials*, **2021**, 9, 121107	5.7	1
7	Anisotropic point defects in rhenium diselenide monolayers. *IScience*, **2021**, 24, 103456	6.1	0
6	Accurate and Robust Calibration of the Uniform Affine Transformation Between Scan-Camera Coordinates for Atom-Resolved In-Focus 4D-STEM Datasets.. *Microscopy and Microanalysis*, **2022**, 1-11	0.5	0
5	Quantitative Nanoplasmonics in the TEM **2016**, 777-778		
4	Assessment of read disturb immunity in conducting bridge memory devices □A thermodynamic perspective. *Microelectronics Reliability*, **2014**, 54, 2295-2299	1.2	
3	Probabilistic insight to possibility of new metal filament nucleation during repeated cycling of conducting bridge memory. *Microelectronics Reliability*, **2015**, 55, 1412-1416	1.2	
2	Nanopatterning with the Helium Ion Microscope. *Microscopy and Microanalysis*, **2012**, 18, 800-801	0.5	
1	Simulation of Atomic Resolution Images in STEM. *Microscopy and Microanalysis*, **2008**, 14, 922-923	0.5	