John Robertson

List of Publications by Year
in descending order

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608 papers	75,401 citations	813 118 h-index	567 263 g-index
617 all docs	617 docs citations	617 times ranked	50477 citing authors

#	Article	IF	Citations
1	Halide Perovskites: Advanced Photovoltaic Materials Empowered by a Unique Bonding Mechanism. Advanced Functional Materials, 2022, 32, 2110166.	7.8	35
2	p-Type Semiconduction in Oxides with Cation Lone Pairs. Chemistry of Materials, 2022, 34, 643-651.	3.2	12
3	Negative Differential Resistance Effect in â€œColdâ€•Metal Heterostructure Diodes. IEEE Electron Device Letters, 2022, 43, 498-501.	2.2	8
4	Reduced Fermi Level Pinning at Physisorptive Sites of Moire-MoS₂/Metal Schottky Barriers. ACS Applied Materials & Interfaces, 2022, 14, 11903-11909.	4.0	17
5	Self-Poisoning by C₂ Products in CO₂ Photoreduction Using a Phosphorus-Doped Carbon Nitride with Nitrogen Vacancies. ACS Sustainable Chemistry and Engineering, 2022, 10, 5758-5769.	3.2	14
6	Electronic properties of CaF2 bulk and interfaces. Journal of Applied Physics, 2022, 131, .	1.1	8
7	Defects and Passivation Mechanism of the Suboxide Layers at SiOâ„/4H-SiC (0001) Interface: A First-Principles Calculation. IEEE Transactions on Electron Devices, 2021, 68, 288-293.	1.6	13
8	Carbon cluster formation and mobility degradation in 4H-SiC MOSFETs. Applied Physics Letters, 2021, 118, .	1.5	18
9	Coupled VO2 Oscillators Circuit as Analog First Layer Filter in Convolutional Neural Networks. Frontiers in Neuroscience, 2021, 15, 628254.	1.4	25
10	Single-Atom Rhodium on Defective g-C₃N₄: A Promising Bifunctional Oxygen Electrocatalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 3590-3599.	3.2	136
11	Microstructure scaling of metalâ€“insulator transition properties of VO2 films. Applied Physics Letters, 2021, 118, .	1.5	6
12	Electronic properties and tunability of the hexagonal SiGe alloys. Applied Physics Letters, 2021, 118, .	1.5	10
13	Schottky barrier heights of defect-free metal/ZnO, CdO, MgO, and SrO interfaces. Journal of Applied Physics, 2021, 129, .	1.1	14
14	Microstructure Scaling in Metal-Insulator-Transitions of Atomic Layer Deposited VO2 Films. Solid-State Electronics, 2021, 183, 108046.	0.8	1
15	The metalâ€“insulator phase change in vanadium dioxide and its applications. Journal of Applied Physics, 2021, 129, .	1.1	25
16	Highâ€Throughput Electronic Structures and Ferroelectric Interfaces of HfO 2 by GGA+ U (d,p) Calculations. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100295.	1.2	5
17	Comparison of hexagonal boron nitride and MgO tunnel barriers in Fe,Co magnetic tunnel junctions. Applied Physics Reviews, 2021, 8, .	5.5	15
18	Ab Initio Study of Hexagonal Boron Nitride as the Tunnel Barrier in Magnetic Tunnel Junctions. ACS Applied Materials & Interfaces, 2021, 13, 47226-47235.	4.0	6

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19	Doping limits in p-type oxide semiconductors. MRS Bulletin, 2021, 46, 1037-1043.	1.7	13
20	Machineâ€learningâ€based interatomic potentials for advanced manufacturing. International Journal of Mechanical System Dynamics, 2021, 1, 159-172.	1.3	4
21	Scaled resistively-coupled VO2 oscillators for neuromorphic computing. Solid-State Electronics, 2020, 168, 107729.	0.8	37
22	Extending the metal-induced gap state model of Schottky barriers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	0.6	14
23	Origin of Weaker Fermi Level Pinning and Localized Interface States at Metal Silicide Schottky Barriers. Journal of Physical Chemistry C, 2020, 124, 19698-19703.	1.5	11
24	Preparation of atomic layer deposited vanadium dioxide thin films using tetrakis(ethylmethylamino) vanadium as precursor. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 052402.	0.9	6
25	Indium Silicon Oxide TFT Fully Photolithographically Processed for Circuit Integration. IEEE Journal of the Electron Devices Society, 2020, 8, 1162-1167.	1.2	5
26	Ultrahigh drive current and large selectivity in GeS selector. Nature Communications, 2020, 11, 4636.	5.8	83
27	Role of the third metal oxide in Inâ€“Gaâ€“Znâ€“O4 amorphous oxide semiconductors: Alternatives to gallium. Journal of Applied Physics, 2020, 128, 215704.	1.1	6
28	Spin filtering by proximity effects at hybridized interfaces in spin-valves with 2D graphene barriers. Nature Communications, 2020, 11, 5670.	5.8	37
29	Theoretical investigation on graphene-supported single-atom catalysts for electrochemical CO₂ reduction. Catalysis Science and Technology, 2020, 10, 8465-8472.	2.1	35
30	Influence of precursor dose and residence time on the growth rate and uniformity of vanadium dioxide thin films by atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 042401.	0.9	12
31	Modelling the enthalpy change and transition temperature dependence of the metalâ€“insulator transition in pure and doped vanadium dioxide. Physical Chemistry Chemical Physics, 2020, 22, 13474-13478.	1.3	12
32	Tuning the high-Îº oxide (HfO2, ZrO2)/4H-SiC interface properties with a SiO2 interlayer for power device applications. Applied Surface Science, 2020, 527, 146843.	3.1	13
33	Self-Selective Resistive Device With Hybrid Switching Mode for Passive Crossbar Memory Application. IEEE Electron Device Letters, 2020, 41, 1009-1012.	2.2	34
34	Band Structure, Band Offsets, and Intrinsic Defect Properties of Few-Layer Arsenic and Antimony. Journal of Physical Chemistry C, 2020, 124, 7441-7448.	1.5	9
35	Semiconducting few-layer PdSe₂ and Pd₂Se₃: native point defects and contacts with native metallic Pd₁₇Se₁₅. Physical Chemistry Chemical Physics, 2020, 22, 7365-7373.	1.3	8
36	Termination-dependence of Fermi level pinning at rare-earth arsenide/GaAs interfaces. Applied Physics Letters, 2020, 116, .	1.5	6

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37	Time-Delay Encoded Image Recognition in a Network of Resistively Coupled VOâ,, on Si Oscillators. IEEE Electron Device Letters, 2020, 41, 629-632.	2.2	31
38	A unified mid-gap defect model for amorphous GeTe phase change material. Applied Physics Letters, 2020, 116, .	1.5	7
39	Hybrid band offset calculation for heterojunction interfaces between disparate semiconductors. Applied Physics Letters, 2020, 116, .	1.5	9
40	Anisotropic Transport Property of Antimonene MOSFETs. ACS Applied Materials & Interfaces, 2020, 12, 22378-22386.	4.0	30
41	Phase dependence of Schottky barrier heights for Geâ€“Sbâ€“Te and related phase-change materials. Journal of Applied Physics, 2020, 127, .	1.1	7
42	Electronic structure of amorphous copper iodide: A <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type transparent semiconductor. Physical Review Materials, 2020, 4, .	0.9	10
43	Schottky barrier height at metal/ZnO interface: A first-principles study. Microelectronic Engineering, 2019, 216, 111056.	1.1	13
44	Density Functional Theory Studies of the Metalâ€“Insulator Transition in Vanadium Dioxide Alloys. Physica Status Solidi (B): Basic Research, 2019, 256, 1900210.	0.7	7
45	Optical band gap of cross-linked, curved, and radical polyaromatic hydrocarbons. Physical Chemistry Chemical Physics, 2019, 21, 16240-16251.	1.3	45
46	Band alignment calculation of dielectric films on VO2. Microelectronic Engineering, 2019, 216, 111057.	1.1	2
47	Structural changes during the switching transition of chalcogenide selector devices. Applied Physics Letters, 2019, 115, .	1.5	13
48	Atomic structure and band alignment at Al2O3/GaN, Sc2O3/GaN and La2O3/GaN interfaces: A first-principles study. Microelectronic Engineering, 2019, 216, 111039.	1.1	12
49	Modeling of surface gap state passivation and Fermi level de-pinning in solar cells. Applied Physics Letters, 2019, 114, .	1.5	20
50	Chalcogenide selector devices and their non-linear conduction process. Microelectronic Engineering, 2019, 216, 111037.	1.1	1
51	Interfacial Properties of Monolayer Antimonene Devices. Physical Review Applied, 2019, 11, .	1.5	22
52	Chemical bonding and band alignment at X2O3/GaN (Xâ€‰=â€‰Al, Sc) interfaces. Applied Physics Letters, 2019, 114, .	1.5	36
53	Atomic structure and electronic structure of disordered graphitic carbon nitride. Carbon, 2019, 147, 483-489.	5.4	12
54	Chalcogenide van der Waals superlattices: a case example of interfacial phase-change memory. Pure and Applied Chemistry, 2019, 91, 1777-1786.	0.9	5

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55	Origin of resistivity contrast in interfacial phase-change memory: The crucial role of Ge/Sb intermixing. Applied Physics Letters, 2019, 114, .	1.5	37
56	Insertion of an ultrathin Al₂O₃interfacial layer for Schottky barrier height reduction in WS₂field-effect transistors. Nanoscale, 2019, 11, 4811-4821.	2.8	24
57	Band Offset Models of Three-Dimensionally Bonded Semiconductors and Insulators. Journal of Physical Chemistry C, 2019, 123, 5562-5570.	1.5	14
58	Materials Selection and Mechanism of Non-linear Conduction in Chalcogenide Selector Devices. Scientific Reports, 2019, 9, 1867.	1.6	31
59	Electronic structure of metallic and insulating phases of vanadium dioxide and its oxide alloys. Physical Review Materials, 2019, 3, .	0.9	11
60	Dye-Assisted Transformation of Cu₂O Nanocrystals to Amorphous Cu_xO Nanoflakes for Enhanced Photocatalytic Performance. ACS Omega, 2018, 3, 1939-1945.	1.6	13
61	Insulator-to-Metallic Spin-Filtering in 2D-Magnetic Tunnel Junctions Based on Hexagonal Boron Nitride. ACS Nano, 2018, 12, 4712-4718.	7.3	88
62	Direct transition of a HfGeTe₄ ternary transition-metal chalcogenide monolayer with a zigzag van der Waals gap. APL Materials, 2018, 6, 046104.	2.2	17
63	Band edge states, intrinsic defects, and dopants in monolayer HfS2 and SnS2. Applied Physics Letters, 2018, 112, .	1.5	22
64	Carbon nanotube isolation layer enhancing in-liquid quality-factors of thin film bulk acoustic wave resonators for gravimetric sensing. Sensors and Actuators B: Chemical, 2018, 261, 398-407.	4.0	10
65	The Over-Reset Phenomenon in Ta₂O₅ RRAM Device Investigated by the RTN-Based Defect Probing Technique. IEEE Electron Device Letters, 2018, 39, 955-958.	2.2	18
66	Dirac-Point Shift by Carrier Injection Barrier in Graphene Field-Effect Transistor Operation at Room Temperature. ACS Applied Materials & Interfaces, 2018, 10, 10618-10621.	4.0	5
67	Passivating the sulfur vacancy in monolayer MoS2. APL Materials, 2018, 6, .	2.2	53
68	Native point defects of semiconducting layered Bi2O2Se. Scientific Reports, 2018, 8, 10920.	1.6	31
69	Germanium substitution endowing Cr3+-doped zinc aluminate phosphors with bright and super-long near-infrared persistent luminescence. Acta Materialia, 2018, 155, 214-221.	3.8	62
70	Oxygen vacancies and hydrogen in amorphous In-Ga-Zn-O and ZnO. Physical Review Materials, 2018, 2, .	0.9	21
71	Controlling Surface Termination and Facet Orientation in Cu₂O Nanoparticles for High Photocatalytic Activity: A Combined Experimental and Density Functional Theory Study. ACS Applied Materials & Interfaces, 2017, 9, 8100-8106.	4.0	99
72	Yttrium passivation of defects in GeO2 and GeO2/Ge interfaces. Applied Physics Letters, 2017, 110, .	1.5	12

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73	Band offsets and metal contacts in monolayer black phosphorus. Microelectronic Engineering, 2017, 178, 108-111.	1.1	5
74	Ultrathin Multifunctional Graphene-PVDF Layers for Multidimensional Touch Interactivity for Flexible Displays. ACS Applied Materials & Interfaces, 2017, 9, 18410-18416.	4.0	62
75	Adsorptive graphene doping: Effect of a polymer contaminant. Applied Physics Letters, 2017, 110, .	1.5	5
76	The role of nitrogen doping in ALD Ta2O5 and its influence on multilevel cell switching in RRAM. Applied Physics Letters, 2017, 110, .	1.5	54
77	Defect passivation of transition metal dichalcogenides via a charge transfer van der Waals interface. Science Advances, 2017, 3, e1701661.	4.7	95
78	Low temperature growth of fully covered single-layer graphene using a CoCu catalyst. Nanoscale, 2017, 9, 14467-14475.	2.8	11
79	Enhanced switching stability in Ta2O5 resistive RAM by fluorine doping. Applied Physics Letters, 2017, 111, .	1.5	21
80	Germanium oxidation occurs by diffusion of oxygen network interstitials. Applied Physics Letters, 2017, 110, 222902.	1.5	9
81	From Growth Surface to Device Interface: Preserving Metallic Fe under Monolayer Hexagonal Boron Nitride. ACS Applied Materials & Interfaces, 2017, 9, 29973-29981.	4.0	16
82	Hydrogen and the Light-Induced Bias Instability Mechanism in Amorphous Oxide Semiconductors. Scientific Reports, 2017, 7, 16858.	1.6	19
83	Charge transfer doping of graphene without degrading carrier mobility. Journal of Applied Physics, 2017, 121, .	1.1	10
84	Investigating the Role of Tunable Nitrogen Vacancies in Graphitic Carbon Nitride Nanosheets for Efficient Visible-Light-Driven H₂ Evolution and CO₂ Reduction. ACS Sustainable Chemistry and Engineering, 2017, 5, 7260-7268.	3.2	322
85	Defect Emission and Optical Gain in SiC_xO_y:H Films. ACS Applied Materials & Interfaces, 2017, 9, 22725-22731.	4.0	13
86	Metal-catalyst-free growth of graphene on insulating substrates by ammonia-assisted microwave plasma-enhanced chemical vapor deposition. RSC Advances, 2017, 7, 33185-33193.	1.7	34
87	Face Dependence of Schottky Barriers Heights of Silicides and Germanides on Si and Ge. Scientific Reports, 2017, 7, 16669.	1.6	14
88	Band structure, band offsets, substitutional doping, and Schottky barriers of bulk and monolayer InSe. Physical Review Materials, 2017, 1, .	0.9	39
89	Mott lecture: How bonding concepts can help understand amorphous semiconductor behavior. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1641-1652.	0.8	17
90	Magnetic tunnel junctions with monolayer hexagonal boron nitride tunnel barriers. Applied Physics Letters, 2016, 108, .	1.5	118

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91	The screening effects of the screened exchange hybrid functional in surface systems: A case study on the CO/Pt(111) problem. AIP Advances, 2016, 6, 065309.	0.6	2
92	Growth of continuous graphene by open roll-to-roll chemical vapor deposition. Applied Physics Letters, 2016, 109, .	1.5	36
93	Band engineering in transition metal dichalcogenides: Stacked versus lateral heterostructures. Applied Physics Letters, 2016, 108, .	1.5	151
94	AlN and Al oxy-nitride gate dielectrics for reliable gate stacks on Ge and InGaAs channels. Journal of Applied Physics, 2016, 119, .	1.1	7
95	Chemical trends of Schottky barrier behavior on monolayer hexagonal B, Al, and Ga nitrides. Journal of Applied Physics, 2016, 120, .	1.1	13
96	Stabilizing a graphene platform toward discrete components. Applied Physics Letters, 2016, 109, 253110.	1.5	16
97	Atomic Layering, Intermixing and Switching Mechanism in Ge-Sb-Te based Chalcogenide Superlattices. Scientific Reports, 2016, 6, 37325.	1.6	38
98	Thirty Gigahertz Optoelectronic Mixing in Chemical Vapor Deposited Graphene. Nano Letters, 2016, 16, 2988-2993.	4.5	26
99	Improved Calculation of Li and Na Intercalation Properties in Anatase, Rutile, and TiO₂(B). Journal of Physical Chemistry C, 2016, 120, 22910-22917.	1.5	69
100	Ultrafast Ge-Te bond dynamics in a phase-change superlattice. Physical Review B, 2016, 94, .	1.1	6
101	Nondestructive optical visualisation of graphene domains and boundaries. Nanoscale, 2016, 8, 16427-16434.	2.8	5
102	Impact of oxygen exchange reaction at the ohmic interface in Ta₂O₅-based ReRAM devices. Nanoscale, 2016, 8, 17774-17781.	2.8	116
103	Interface Engineering for Atomic Layer Deposited Alumina Gate Dielectric on SiGe Substrates. ACS Applied Materials & Interfaces, 2016, 8, 19110-19118.	4.0	34
104	Band offsets of oxide, 3D and 2D semiconductors and their implications. , 2016, , .		0
105	Stable, efficient p-type doping of graphene by nitric acid. RSC Advances, 2016, 6, 113185-113192.	1.7	66
106	Growth of Continuous Monolayer Graphene with Millimeter-sized Domains Using Industrially Safe Conditions. Scientific Reports, 2016, 6, 21152.	1.6	48
107	Revisiting the Local Structure in Ge-Sb-Te based Chalcogenide Superlattices. Scientific Reports, 2016, 6, 22353.	1.6	63
108	Defects and reliability of high K gate stacks on Si, Ge and IIIâ€“Vs. , 2016, , .		1

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109	Nature of Cu Interstitials in Al₂O₃ and the Implications for Filament Formation in Conductive Bridge Random Access Memory Devices. Journal of Physical Chemistry C, 2016, 120, 14474-14483.	1.5	13
110	A fast transfer-free synthesis of high-quality monolayer graphene on insulating substrates by a simple rapid thermal treatment. Nanoscale, 2016, 8, 2594-2600.	2.8	20
111	Oxide defects and reliability of high K/Ge and IIIâ€"V based gate stacks. , 2015, , .		0
112	Oxygen Defect-Induced Metastability in Oxide Semiconductors Probed by Gate Pulse Spectroscopy. Scientific Reports, 2015, 5, 14902.	1.6	53
113	Localized Tail States and Electron Mobility in Amorphous ZnON Thin Film Transistors. Scientific Reports, 2015, 5, 13467.	1.6	70
114	Modeling of switching mechanism in GeSbTe chalcogenide superlattices. Scientific Reports, 2015, 5, 12612.	1.6	84
115	Energetics of intrinsic defects in NiO and the consequences for its resistive random access memory performance. Applied Physics Letters, 2015, 107, .	1.5	51
116	Defect state passivation at III-V oxide interfaces for complementary metalâ€"oxideâ€"semiconductor devices. Journal of Applied Physics, 2015, 117, .	1.1	77
117	Spatial variability in large area single and few-layer CVD graphene. , 2015, , .		1
118	Chalcogen vacancies in monolayer transition metal dichalcogenides and Fermi level pinning at contacts. Applied Physics Letters, 2015, 106, .	1.5	151
119	3D Behavior of Schottky Barriers of 2D Transition-Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2015, 7, 25709-25715.	4.0	134
120	The effects of screening length in the non-local screened-exchange functional. Journal of Physics Condensed Matter, 2015, 27, 025501.	0.7	10
121	Soluble polysulphide sorption using carbon nanotube forest for enhancing cycle performance in a lithiumâ€"sulphur battery. Nano Energy, 2015, 12, 538-546.	8.2	95
122	Calculation of TiO₂ Surface and Subsurface Oxygen Vacancy by the Screened Exchange Functional. Journal of Physical Chemistry C, 2015, 119, 18160-18166.	1.5	136
123	Low-Temperature Growth of Carbon Nanotube Forests Consisting of Tubes with Narrow Inner Spacing Using Co/Al/Mo Catalyst on Conductive Supports. ACS Applied Materials & Interfaces, 2015, 7, 16819-16827.	4.0	27
124	AlN-GeO2 based gate stack for improved reliability of Ge MOSFETs. Microelectronic Engineering, 2015, 147, 168-170.	1.1	6
125	Ab initio calculations of materials selection of oxides for resistive random access memories. Microelectronic Engineering, 2015, 147, 339-343.	1.1	10
126	Long-Term Passivation of Strongly Interacting Metals with Single-Layer Graphene. Journal of the American Chemical Society, 2015, 137, 14358-14366.	6.6	133

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127	Selective Passivation of GeO₂/Ge Interface Defects in Atomic Layer Deposited High-k MOS Structures. ACS Applied Materials & Interfaces, 2015, 7, 20499-20506.	4.0	66
128	Efficient Transfer Doping of Carbon Nanotube Forests by MoO₃. ACS Nano, 2015, 9, 10422-10430.	7.3	39
129	High-K materials and metal gates for CMOS applications. Materials Science and Engineering Reports, 2015, 88, 1-41.	14.8	542
130	Vacancy and Doping States in Monolayer and bulk Black Phosphorus. Scientific Reports, 2015, 5, 14165.	1.6	55
131	Silicon versus the rest. Canadian Journal of Physics, 2014, 92, 553-560.	0.4	1
132	Materials selection for oxide-based resistive random access memories. Applied Physics Letters, 2014, 105, .	1.5	92
133	Nature of gap states in GeSbTe phase change memory materials. Canadian Journal of Physics, 2014, 92, 671-674.	0.4	8
134	Origin of the high work function and high conductivity of MoO3. Applied Physics Letters, 2014, 105, .	1.5	161
135	Diamond-Like Carbon Films, Properties and Applications. , 2014, , 101-139.		11
136	Increased carbon nanotube area density after catalyst generation from cobalt disilicide using a cyclic reactive ion etching approach. Journal of Applied Physics, 2014, 115, 144302.	1.1	3
137	Light induced instability mechanism in amorphous InGaZn oxide semiconductors. Applied Physics Letters, 2014, 104, .	1.5	60
138	Oxygen vacancy defects in Ta2O5 showing long-range atomic re-arrangements. Applied Physics Letters, 2014, 104, .	1.5	42
139	Dopant compensation in HfO2 and other high K oxides. Applied Physics Letters, 2014, 104, 192904.	1.5	13
140	Electronic properties of MoS₂/hâ€BN heterostructures: Impact of dopants and impurities. Physica Status Solidi (B): Basic Research, 2014, 251, 2620-2625.	0.7	10
141	Thermal stability investigation in highly- uniform and low-voltage tantalum oxide-based RRAM. , 2014, , .		2
142	Amorphous Oxide Semiconductor TFTs for Displays and Imaging. Journal of Display Technology, 2014, 10, 917-927.	1.3	133
143	The role of the sp2:sp3 substrate content in carbon supported nanotube growth. Carbon, 2014, 75, 327-334.	5.4	17
144	Calculation of metallic and insulating phases of V2O3 by hybrid density functionals. Journal of Chemical Physics, 2014, 140, 054702.	1.2	24

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145	Carbon nanotube forests growth using catalysts from atomic layer deposition. Journal of Applied Physics, 2014, 115, 144303.	1.1	10
146	Study of CeO₂ and Its Native Defects by Density Functional Theory with Repulsive Potential. Journal of Physical Chemistry C, 2014, 118, 24248-24256.	1.5	86
147	Effect of Catalyst Pretreatment on Chirality-Selective Growth of Single-Walled Carbon Nanotubes. Journal of Physical Chemistry C, 2014, 118, 5773-5781.	1.5	37
148	Organic light emitting diodes with environmentally and thermally stable doped graphene electrodes. Journal of Materials Chemistry C, 2014, 2, 6940.	2.7	59
149	Indirect doping effects from impurities inMoS2/h-BNheterostructures. Physical Review B, 2014, 90, .	1.1	39
150	Sub-nanometer Atomic Layer Deposition for Spintronics in Magnetic Tunnel Junctions Based on Graphene Spin-Filtering Membranes. ACS Nano, 2014, 8, 7890-7895.	7.3	109
151	Behaviour of hydrogen in wide band gap oxides. Journal of Applied Physics, 2014, 115, .	1.1	70
152	Single-step CVD growth of high-density carbon nanotube forests on metallic Ti coatings through catalyst engineering. Carbon, 2014, 67, 680-687.	5.4	22
153	Comparison of carbon nanotube forest growth using AlSi, TiSiN, and TiN as conductive catalyst supports. Physica Status Solidi (B): Basic Research, 2014, 251, 2389-2393.	0.7	9
154	Passivation of III–V oxide interfaces for CMOS. , 2014, , .		0
155	Metal Oxide Induced Charge Transfer Doping and Band Alignment of Graphene Electrodes for Efficient Organic Light Emitting Diodes. Scientific Reports, 2014, 4, 5380.	1.6	202
156	Low temperature growth of ultra-high mass density carbon nanotube forests on conductive supports. Applied Physics Letters, 2013, 103, .	1.5	49
157	Defect densities inside the conductive filament of RRAMs. Microelectronic Engineering, 2013, 109, 208-210.	1.1	23
158	Analysis of metal insulator transitions in VO2 and V2O3 for RRAMs. Microelectronic Engineering, 2013, 109, 278-281.	1.1	11
159	High density carbon nanotube growth using a plasma pretreated catalyst. Carbon, 2013, 53, 339-345.	5.4	24
160	High contrast holograms using nanotube forest. Applied Physics Letters, 2013, 103, 111104.	1.5	4
161	Electronic structure of lanthanide oxide high K gate oxides. Microelectronic Engineering, 2013, 109, 72-74.	1.1	11
162	Chemical trends of defects at HfO2:GaAs and Al2O3:GaAs/InAs/InP/GaSb interfaces. Journal of Applied Physics, 2013, 113, .	1.1	22

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163	Band offsets, Schottky barrier heights, and their effects on electronic devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	171
164	First-principles calculations of the electronic structure and defects of Al2O3. Journal of Applied Physics, 2013, 114, .	1.1	28
165	Tantalum-oxide catalysed chemical vapour deposition of single- and multi-walled carbon nanotubes. RSC Advances, 2013, 3, 4086.	1.7	15
166	Chemical trends and passivation of defects at Al2O3:GaAs/InAs/InP/GaSb interfaces. Microelectronic Engineering, 2013, 109, 274-277.	1.1	9
167	Nitrogen passivation at GaAs:Al2O3 interfaces. Applied Physics Letters, 2013, 102, .	1.5	32
168	Nature of the electronic band gap in lanthanide oxides. Physical Review B, 2013, 87, .	1.1	182
169	Measurement of area density of vertically aligned carbon nanotube forests by the weight-gain method. Journal of Applied Physics, 2013, 113, .	1.1	52
170	Band alignment between Ta2O5 and metals for resistive random access memory electrodes engineering. Applied Physics Letters, 2013, 102, .	1.5	60
171	Carbon nanotube growth for through silicon via application. Nanotechnology, 2013, 24, 125603.	1.3	39
172	Doping and compensation in Nb-doped anatase and rutile TiO2. Journal of Applied Physics, 2013, 113, .	1.1	67
173	Defects at Ge:GeO2 and Ge:MeOx interfaces. Microelectronic Engineering, 2013, 109, 244-249.	1.1	7
174	Improved Switching Uniformity and Low-Voltage Operation in ${m TaO}_{x}$-Based RRAM Using Ge Reactive Layer. IEEE Electron Device Letters, 2013, 34, 1130-1132.	2.2	36
175	A hybrid density functional view of native vacancies in gallium nitride. Journal of Physics Condensed Matter, 2013, 25, 405501.	0.7	22
176	Defect energy levels in La and Hf germanates on Ge. Journal of Applied Physics, 2013, 113, 124101.	1.1	0
177	Electrical conduction of carbon nanotube forests through sub-nanometric films of alumina. Applied Physics Letters, 2013, 102, .	1.5	24
178	Sulfur vacancies in monolayer MoS2 and its electrical contacts. Applied Physics Letters, 2013, 103, .	1.5	327
179	Superhydrophobic Carbon Nanotube Electrode Produces a Nearâ€Symmetrical Alternating Current from Photosynthetic Proteinâ€Based Photoelectrochemical Cells. Advanced Functional Materials, 2013, 23, 5556-5563.	7.8	31
180	Evaluation of bimetallic catalysts for the growth of carbon nanotube forests. Physica Status Solidi (B): Basic Research, 2013, 250, 2605-2610.	0.7	6

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181	Diameter and wall number control of carbon nanotubes by chemical vapor deposition. Journal of Applied Physics, 2013, 114, .	1.1	6
182	Passivation of interfacial defects at III-V oxide interfaces. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	53
183	Substrate-assisted nucleation of ultra-thin dielectric layers on graphene by atomic layer deposition. Applied Physics Letters, 2012, 100, .	1.5	78
184	Identifying a suitable passivation route for Ge interfaces. Applied Physics Letters, 2012, 101, 052903.	1.5	20
185	Defect compensation in LaAlO3 perovskite-based high dielectric constant oxides. Journal of Applied Physics, 2012, 112, 034108.	1.1	6
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