John Robertson

List of Publications by Year in descending order

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608	75,401	813	567
papers	citations	118 h-index	263 g-index

617	617	617	50477
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interpretation of Raman spectra of disordered and amorphous carbon. Physical Review B, 2000, 61, 14095-14107.	1.1	12,419
2	Diamond-like amorphous carbon. Materials Science and Engineering Reports, 2002, 37, 129-281.	14.8	5,220
3	Resonant Raman spectroscopy of disordered, amorphous, and diamondlike carbon. Physical Review B, 2001, 64, .	1.1	2,435
4	Raman spectroscopy of amorphous, nanostructured, diamondâ€“like carbon, and nanodiamond. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2004, 362, 2477-2512.	1.6	2,129
5	Band offsets of wide-band-gap oxides and implications for future electronic devices. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1785.	1.6	1,843
6	High dielectric constant gate oxides for metal oxide Si transistors. Reports on Progress in Physics, 2006, 69, 327-396.	8.1	1,490
7	Amorphous carbon. Advances in Physics, 1986, 35, 317-374.	35.9	1,374
8	High dielectric constant oxides. EPJ Applied Physics, 2004, 28, 265-291.	0.3	1,350
9	Electronic and atomic structure of amorphous carbon. Physical Review B, 1987, 35, 2946-2957.	1.1	1,274
10	Raman spectroscopy of hydrogenated amorphous carbons. Physical Review B, 2005, 72, .	1.1	1,037
11	Growth process conditions of vertically aligned carbon nanotubes using plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2001, 90, 5308-5317.	1.1	1,034
12	Resonant bonding in crystalline phase-change materials. Nature Materials, 2008, 7, 653-658.	13.3	959
13	Properties of filtered-ion-beam-deposited diamondlike carbon as a function of ion energy. Physical Review B, 1993, 48, 4777-4782.	1.1	842
14	Hard amorphous (diamond-like) carbons. Progress in Solid State Chemistry, 1991, 21, 199-333.	3.9	746
15	Properties of diamond-like carbon. Surface and Coatings Technology, 1992, 50, 185-203.	2.2	714
16	In situ Observations of Catalyst Dynamics during Surface-Bound Carbon Nanotube Nucleation. Nano Letters, 2007, 7, 602-608.	4.5	662
17	Interpretation of infrared and Raman spectra of amorphous carbon nitrides. Physical Review B, 2003, 67, .	1.1	659
18	Band offsets of high K gate oxides on III-V semiconductors. Journal of Applied Physics, 2006, 100, 014111.	1.1	607

#	Article	IF	Citations
19	display="inline"><mml:mrow><mml:mi>Î³</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>Î²</mml:mi></mml:mrow></mml:math> transition in multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"	1.1	504
20	High-K materials and metal gates for CMOS applications. Materials Science and Engineering Reports, 2015, 88, 1-41.	14.8	542
21	Density,sp3fraction, and cross-sectional structure of amorphous carbon films determined by x-ray reflectivity and electron energy-loss spectroscopy. Physical Review B, 2000, 62, 11089-11103.	1.1	506
22	Deposition mechanisms for promoting sp3 bonding in diamond-like carbon. Diamond and Related Materials, 1993, 2, 984-989.	1.8	487
23	Defect energy levels in HfO2 high-dielectric-constant gate oxide. Applied Physics Letters, 2005, 87, 183505.	1.5	459
24	Gated three-terminal device architecture to eliminate persistent photoconductivity in oxide semiconductor photosensor arrays. Nature Materials, 2012, 11, 301-305.	13.3	434
25	Theory of defects in vitreous silicon dioxide. Physical Review B, 1983, 27, 3780-3795.	1.1	414
26	Stress reduction and bond stability during thermal annealing of tetrahedral amorphous carbon. Journal of Applied Physics, 1999, 85, 7191-7197.	1.1	390
27	The deposition mechanism of diamond-like a-C and a-C: H. Diamond and Related Materials, 1994, 3, 361-368.	1.8	373
28	Low-temperature growth of carbon nanotubes by plasma-enhanced chemical vapor deposition. Applied Physics Letters, 2003, 83, 135-137.	1.5	364
29	Band gap and Schottky barrier heights of multiferroic BiFeO3. Applied Physics Letters, 2007, 90, 132903.	1.5	364
30	Surface Diffusion: The Low Activation Energy Path for Nanotube Growth. Physical Review Letters, 2005, 95, 036101.	2.9	362
31	Band offsets and Schottky barrier heights of high dielectric constant oxides. Journal of Applied Physics, 2002, 92, 4712-4721.	1.1	361
32	Schottky barrier heights of tantalum oxide, barium strontium titanate, lead titanate, and strontium bismuth tantalate. Applied Physics Letters, 1999, 74, 1168-1170.	1.5	355
33	Bonding in hydrogenated diamond-like carbon by Raman spectroscopy. Diamond and Related Materials, 2005, 14, 1098-1102.	1.8	353
34	Preparation and properties of highly tetrahedral hydrogenated amorphous carbon. Physical Review B, 1996, 53, 1594-1608.	1.1	345
35	Influence of ion energy and substrate temperature on the optical and electronic properties of tetrahedral amorphous carbon (ta-C) films. Journal of Applied Physics, 1997, 81, 139-145.	1.1	344
36	Phonon linewidths and electron-phonon coupling in graphite and nanotubes. Physical Review B, 2006, 73, .	1.1	335

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37	Nitrogen modification of hydrogenated amorphous carbon films. Journal of Applied Physics, 1997, 81, 2626-2634.	1.1	333
38	Sulfur vacancies in monolayer MoS2 and its electrical contacts. Applied Physics Letters, 2013, 103, .	1.5	327
39	Raman spectroscopy of silicon nanowires. Physical Review B, 2003, 68, .	1.1	326
40	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
41	Field emission from tetrahedral amorphous carbon. Applied Physics Letters, 1997, 71, 1430-1432.	1.5	312
42	Recombination and photoluminescence mechanism in hydrogenated amorphous carbon. Physical Review B, 1996, 53, 16302-16305.	1.1	302
43	Catalytic Chemical Vapor Deposition of Single-Wall Carbon Nanotubes at Low Temperatures. Nano Letters, 2006, 6, 1107-1112.	4.5	297
44	The Ultrasmoothness of Diamond-like Carbon Surfaces. Science, 2005, 309, 1545-1548.	6.0	286
45	Realistic applications of CNTs. Materials Today, 2004, 7, 46-52.	8.3	263
46	Hardness, elastic modulus, and structure of very hard carbon films produced by cathodicâ€arc deposition with substrate pulse biasing. Applied Physics Letters, 1996, 68, 779-781.	1.5	255
47	Evolution of sp2 bonding with deposition temperature in tetrahedral amorphous carbon studied by Raman spectroscopy. Applied Physics Letters, 2000, 76, 1419-1421.	1.5	250
48	Trap-limited and percolation conduction mechanisms in amorphous oxide semiconductor thin film transistors. Applied Physics Letters, 2011, 98, .	1.5	249
49	Limits to doping in oxides. Physical Review B, 2011, 83, .	1.1	248
50	Gold catalyzed growth of silicon nanowires by plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2003, 94, 6005-6012.	1.1	247
51	Intrinsic defects in ZnO calculated by screened exchange and hybrid density functionals. Physical Review B, 2010, 81, .	1.1	244
52	Mechanical properties and coordinations of amorphous carbons. Physical Review Letters, 1992, 68, 220-223.	2.9	243
53	In-situ X-ray Photoelectron Spectroscopy Study of Catalystâ^'Support Interactions and Growth of Carbon Nanotube Forests. Journal of Physical Chemistry C, 2008, 112, 12207-12213.	1.5	240
54	Electronic structure of SnO2, GeO2, PbO2, TeO2and MgF2. Journal of Physics C: Solid State Physics, 1979, 12, 4767-4776.	1.5	237

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55	Direct observation of sp3 bonding in tetrahedral amorphous carbon using ultraviolet Raman spectroscopy. Applied Physics Letters, 1997, 70, 1980-1982.	1.5	235
56	Nitrogen doping of tetrahedral amorphous carbon. Diamond and Related Materials, 1995, 4, 441-444.	1.8	233
57	Diamond-like carbon for data and beer storage. Materials Today, 2007, 10, 44-53.	8.3	222
58	Band gaps and defect levels in functional oxides. Thin Solid Films, 2006, 496, 1-7.	0.8	218
59	Diamond-like carbon. Pure and Applied Chemistry, 1994, 66, 1789-1796.	0.9	216
60	Bonding origin of optical contrast in phase-change memory materials. Physical Review B, 2010, 81, .	1.1	209
61	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
62	Structural models of a-C and a-C:H. Diamond and Related Materials, 1995, 4, 297-301.	1.8	201
63	Ultrathin carbon coatings for magnetic storage technology. Thin Solid Films, 2001, 383, 81-88.	0.8	201
64	Interfaces and defects of high-K oxides on silicon. Solid-State Electronics, 2005, 49, 283-293.	0.8	201
65	Mechanisms of electron field emission from diamond, diamond-like carbon, and nanostructured carbon. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1999, 17, 659.	1.6	197
66	Tetrahedral amorphous carbon films prepared by magnetron sputtering and dc ion plating. Journal of Applied Physics, 1996, 79, 1416-1422.	1.1	195
67	Limits to adherence of oxide scales. Materials Science and Technology, 1990, 6, 81-92.	0.8	190
68	Raman and infrared modes of hydrogenated amorphous carbon nitride. Journal of Applied Physics, 2001, 89, 5425-5430.	1.1	190
69	Ink-jet printing of carbon nanotube thin film transistors. Journal of Applied Physics, 2007, 102, .	1.1	189
70	Screened exchange density functional applied to solids. Physical Review B, 2010, 82, .	1.1	189
71	Growth of Ultrahigh Density Single-Walled Carbon Nanotube Forests by Improved Catalyst Design. ACS Nano, 2012, 6, 2893-2903.	7.3	184
72	Nature of the electronic band gap in lanthanide oxides. Physical Review B, 2013, 87, .	1.1	182

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73	Defectâ€dipole alignment and tetragonal strain in ferroelectrics. Journal of Applied Physics, 1996, 79, 9250-9257.	1.1	181
74	Photoluminescence and Raman spectroscopy in hydrogenated carbon films. IEEE Transactions on Magnetics, 1997, 33, 3148-3150.	1.2	180
75	The Phase of Iron Catalyst Nanoparticles during Carbon Nanotube Growth. Chemistry of Materials, 2012, 24, 4633-4640.	3.2	180
76	Temperature selective growth of carbon nanotubes by chemical vapor deposition. Journal of Applied Physics, 2002, 92, 3299-3303.	1.1	178
77	Effect of sp2-phase nanostructure on field emission from amorphous carbons. Applied Physics Letters, 2000, 76, 2627-2629.	1.5	175
78	Control the chirality of carbon nanotubes by epitaxial growth. Chemical Physics Letters, 2006, 421, 469-472.	1.2	173
79	Elastic constants of tetrahedral amorphous carbon films by surface Brillouin scattering. Applied Physics Letters, 1999, 75, 1893-1895.	1.5	172
80	Direct quantitative detection of the sp3 bonding in diamond-like carbon films using ultraviolet and visible Raman spectroscopy. Journal of Applied Physics, 2000, 87, 7283-7289.	1.1	172
81	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
82	Highly tetrahedral, diamondâ€like amorphous hydrogenated carbon prepared from a plasma beam source. Applied Physics Letters, 1994, 64, 2797-2799.	1.5	169
83	Behavior of hydrogen in high dielectric constant oxide gate insulators. Applied Physics Letters, 2003, 83, 2025-2027.	1.5	168
84	State of Transition Metal Catalysts During Carbon Nanotube Growth. Journal of Physical Chemistry C, 2009, 113, 1648-1656.	1.5	166
85	Growth Kinetics of 0.5 cm Vertically Aligned Single-Walled Carbon Nanotubes. Journal of Physical Chemistry B, 2007, 111, 1907-1910.	1.2	165
86	Direct growth of aligned carbon nanotube field emitter arrays onto plastic substrates. Applied Physics Letters, 2003, 83, 4661-4663.	1.5	164
87	Origin of the high work function and high conductivity of MoO3. Applied Physics Letters, 2014, 105, .	1.5	161
88	Preparation of tetrahedral amorphous carbon films by filtered cathodic vacuum arc deposition. Diamond and Related Materials, 2000, 9, 663-667.	1.8	154
89	Bonding, Energies, and Band Offsets ofSiâ^'ZrO2andHfO2Gate Oxide Interfaces. Physical Review Letters, 2004, 92, 057601.	2.9	154
90	Ab initiocalculation of electron affinities of diamond surfaces. Physical Review B, 1998, 57, 9241-9245.	1.1	151

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91	Chalcogen vacancies in monolayer transition metal dichalcogenides and Fermi level pinning at contacts. Applied Physics Letters, 2015, 106, .	1.5	151
92	Band engineering in transition metal dichalcogenides: Stacked versus lateral heterostructures. Applied Physics Letters, 2016, 108, .	1.5	151
93	Electronic structure of amorphous semiconductors. Advances in Physics, 1983, 32, 361-452.	35.9	150
94	Metalâ€Free Growth of Nanographene on Silicon Oxides for Transparent Conducting Applications. Advanced Functional Materials, 2012, 22, 2123-2128.	7.8	150
95	Effects of deposition temperature on the properties of hydrogenated tetrahedral amorphous carbon. Journal of Applied Physics, 1997, 82, 4566-4576.	1.1	146
96	Electronic structure of oxygen vacancies in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi mathvariant="normal">SrTiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi mathvariant="normal">LaAlO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 86, .	1.1	146
97	Electronic structure of the ferroelectric layered perovskite SrBi2Ta2O9. Applied Physics Letters, 1996, 69, 1704-1706.	1.5	144
98	Fermi level pinning by defects in HfO2-metal gate stacks. Applied Physics Letters, 2007, 91, .	1.5	144
99	Band offsets of high dielectric constant gate oxides on silicon. Journal of Non-Crystalline Solids, 2002, 303, 94-100.	1.5	139
100	Model of interface states at III-V oxide interfaces. Applied Physics Letters, 2009, 94, .	1.5	139
101	Persistent photoconductivity in Hfâ€“Inâ€“Znâ€“O thin film transistors. Applied Physics Letters, 2010, 97, .	1.5	139
102	Graphene-Passivated Nickel as an Oxidation-Resistant Electrode for Spintronics. ACS Nano, 2012, 6, 10930-10934.	7.3	138
103	Passivation of oxygen vacancy states in HfO2 by nitrogen. Journal of Applied Physics, 2006, 99, 044105.	1.1	137
104	Relative importance of the Siâ€“Si bond and Siâ€“H bond for the stability of amorphous silicon thin film transistors. Journal of Applied Physics, 2000, 87, 144-154.	1.1	136
105	Growth of Ultrahigh Density Vertically Aligned Carbon Nanotube Forests for Interconnects. ACS Nano, 2010, 4, 7431-7436.	7.3	136
106	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
107	Single-Atom Rhodium on Defective g-C₃N₄: A Promising Bifunctional Oxygen Electrocatalyst. ACS Sustainable Chemistry and Engineering, 2021, 9, 3590-3599.	3.2	136
108	3D Behavior of Schottky Barriers of 2D Transition-Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2015, 7, 25709-25715.	4.0	134

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109	Growth of nanotubes for electronics. Materials Today, 2007, 10, 36-43.	8.3	133
110	Amorphous Oxide Semiconductor TFTs for Displays and Imaging. Journal of Display Technology, 2014, 10, 917-927.	1.3	133
111	Long-Term Passivation of Strongly Interacting Metals with Single-Layer Graphene. Journal of the American Chemical Society, 2015, 137, 14358-14366.	6.6	133
112	Diffusion- and Reaction-Limited Growth of Carbon Nanotube Forests. ACS Nano, 2009, 3, 3560-3566.	7.3	127
113	Mechanism of biasâ€enhanced nucleation of diamond on Si. Applied Physics Letters, 1995, 66, 3287-3289.	1.5	126
114	Nature of disorder and localization in amorphous carbon. Journal of Non-Crystalline Solids, 1998, 227-230, 602-606.	1.5	126
115	Gap states in diamond-like amorphous carbon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 335-350.	0.6	124
116	Influence of nitrogen and temperature on the deposition of tetrahedrally bonded amorphous carbon. Journal of Applied Physics, 2000, 88, 1149-1157.	1.1	123
117	Effects of catalyst film thickness on plasma-enhanced carbon nanotube growth. Journal of Applied Physics, 2005, 98, 034308.	1.1	123
118	Defect states at III-V semiconductor oxide interfaces. Applied Physics Letters, 2011, 98, .	1.5	122
119	Electronic structure of SnS2, SnSe2, CdI2and PbI2. Journal of Physics C: Solid State Physics, 1979, 12, 4753-4766.	1.5	121
120	Stability and band offsets of nitrogenated high-dielectric-constant gate oxides. Applied Physics Letters, 2004, 84, 106-108.	1.5	120
121	Acetylene: A Key Growth Precursor for Single-Walled Carbon Nanotube Forests. Journal of Physical Chemistry C, 2009, 113, 17321-17325.	1.5	120
122	Oxygen vacancy levels and electron transport in Al2O3. Applied Physics Letters, 2010, 96, 032905.	1.5	119
123	Magnetic tunnel junctions with monolayer hexagonal boron nitride tunnel barriers. Applied Physics Letters, 2016, 108, .	1.5	118
124	Is stress necessary to stabilise sp3 bonding in diamond-like carbon?. Diamond and Related Materials, 2002, 11, 994-999.	1.8	117
125	Defect states in the high-dielectric-constant gate oxide LaAlO3. Applied Physics Letters, 2006, 89, 022907.	1.5	116
126	Maximizing performance for higher K gate dielectrics. Journal of Applied Physics, 2008, 104, 124111.	1.1	116

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127	Impact of oxygen exchange reaction at the ohmic interface in Ta₂O₅-based ReRAM devices. Nanoscale, 2016, 8, 17774-17781.	2.8	116
128	Deposition mechanism of hydrogenated amorphous silicon. Journal of Applied Physics, 2000, 87, 2608-2617.	1.1	112
129	Effect of work function and surface microstructure on field emission of tetrahedral amorphous carbon. Journal of Applied Physics, 2000, 88, 6002-6010.	1.1	111
130	Electronic structure of p-type conducting transparent oxides. Thin Solid Films, 2002, 411, 96-100.	0.8	111
131	Structure and formation energy of carbon nanotube caps. Physical Review B, 2005, 72, .	1.1	110
132	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
133	Comparison of neutron-scattering data for tetrahedral amorphous carbon with structural models. Physical Review B, 1995, 51, 12303-12312.	1.1	108
134	Energy levels of oxygen vacancies in BiFeO3 by screened exchange. Applied Physics Letters, 2009, 94, .	1.5	108
135	Instability in threshold voltage and subthreshold behavior in Hfâ€“Inâ€“Znâ€“O thin film transistors induced by bias-and light-stress. Applied Physics Letters, 2010, 97, .	1.5	108
136	Electronic structure and core exciton of hexagonal boron nitride. Physical Review B, 1984, 29, 2131-2137.	1.1	106
137	The role of the catalytic particle in the growth of carbon nanotubes by plasma enhanced chemical vapor deposition. Journal of Applied Physics, 2004, 95, 6387-6391.	1.1	105
138	Requirements of ultrathin carbon coatings for magnetic storage technology. Tribology International, 2003, 36, 405-415.	3.0	104
139	Electronic structure of amorphous III-V and II-VI compound semiconductors and their defects. Physical Review B, 1986, 34, 8684-8695.	1.1	103
140	Electronic Structure and Band Offsets of High-Dielectric-Constant Gate Oxides. MRS Bulletin, 2002, 27, 217-221.	1.7	103
141	Band structures and band offsets of high K dielectrics on Si. Applied Surface Science, 2002, 190, 2-10.	3.1	101
142	Shallow Pb3+hole traps in lead zirconate titanate ferroelectrics. Applied Physics Letters, 1993, 63, 1519-1521.	1.5	100
143	Electronic structure of diamond-like carbon. Diamond and Related Materials, 1997, 6, 212-218.	1.8	100
144	Field emission from tetrahedral amorphous carbon as a function of surface treatment and substrate material. Applied Physics Letters, 1999, 74, 1594-1596.	1.5	99

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145	Behavior of hydrogen in wide band gap oxides. Journal of Applied Physics, 2007, 102, .	1.1	99
146	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
147	Properties of amorphous carbonâ€“silicon alloys deposited by a high plasma density source. Journal of Applied Physics, 2001, 90, 5002-5012.	1.1	97
148	Band states and shallow hole traps in Pb(Zr,Ti)O3ferroelectrics. Journal of Applied Physics, 1995, 77, 3975-3980.	1.1	96
149	Band structure calculations of CuAlO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>, CuGaO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>, CuInO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>, and CuScO	1.1	95
150	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
151	Defect passivation of transition metal dichalcogenides via a charge transfer van der Waals interface. Science Advances, 2017, 3, e1701661.	4.7	95
152	Density, sp 3 content and internal layering of DLC films by X-ray reflectivity and electron energy loss spectroscopy. Diamond and Related Materials, 2000, 9, 771-776.	1.8	94
153	Dynamic Roughening of Tetrahedral Amorphous Carbon. Physical Review Letters, 2003, 91, 226104.	2.9	94
154	Protective diamond-like carbon coatings for future optical storage disks. Diamond and Related Materials, 2005, 14, 994-999.	1.8	93
155	Hydrogenated amorphous carbon film coating of PET bottles for gas diffusion barriers. Diamond and Related Materials, 2006, 15, 921-927.	1.8	93
156	Band diagram of diamond and diamond-like carbon surfaces. Diamond and Related Materials, 1998, 7, 620-625.	1.8	92
157	Three-dimensional carbon nanowall structures. Applied Physics Letters, 2007, 90, 123107.	1.5	92
158	Materials selection for oxide-based resistive random access memories. Applied Physics Letters, 2014, 105, .	1.5	92
159	Comparison of diamondâ€like carbon to diamond for applications. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2233-2244.	0.8	91
160	The electronic properties of silicon nitride. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1981, 44, 215-237.	0.6	89
161	Structure and luminescence properties of an amorphous hydrogenated carbon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1996, 74, 369-386.	0.6	89
162	Band structure of functional oxides by screened exchange and the weighted density approximation. Physica Status Solidi (B): Basic Research, 2006, 243, 2054-2070.	0.7	88

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163	Calculation of point defects in rutile TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>by the screened-exchange hybrid functional. Physical Review B, 2012, 86, .	1.1	88
164	Insulator-to-Metallic Spin-Filtering in 2D-Magnetic Tunnel Junctions Based on Hexagonal Boron Nitride. ACS Nano, 2018, 12, 4712-4718.	7.3	88
165	Deposition mechanism of cubic boron nitride. Diamond and Related Materials, 1996, 5, 519-524.	1.8	87
166	Low-temperature synthesis of ZnSe nanowires and nanosaws by catalyst-assisted molecular-beam epitaxy. Applied Physics Letters, 2005, 86, 153103.	1.5	87
167	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
168	Bonding and mechanical properties of ultrathin diamond-like carbon films. Applied Physics Letters, 2002, 81, 3804-3806.	1.5	85
169	Modeling of switching mechanism in GeSbTe chalcogenide superlattices. Scientific Reports, 2015, 5, 12612.	1.6	84
170	Point defects in HfO2 high K gate oxide. Microelectronic Engineering, 2005, 80, 408-411.	1.1	83
171	Ultrahigh drive current and large selectivity in GeS selector. Nature Communications, 2020, 11, 4636.	5.8	83
172	Electron affinity of carbon systems. Diamond and Related Materials, 1996, 5, 797-801.	1.8	82
173	Oxygen vacancies in high-k oxides. Microelectronic Engineering, 2007, 84, 2028-2031.	1.1	82
174	Disorder and instability processes in amorphous conducting oxides. Physica Status Solidi (B): Basic Research, 2008, 245, 1026-1032.	0.7	82
175	Electronic and magnetic properties of Ti₂O₃, Cr₂O₃, and Fe₂O₃calculated by the screened exchange hybrid density functional. Journal of Physics Condensed Matter, 2012, 24, 325504.	0.7	82
176	Hydrogen content estimation of hydrogenated amorphous carbon by visible Raman spectroscopy. Journal of Applied Physics, 2004, 96, 6348-6352.	1.1	81
177	Thermal and chemical vapor deposition of Si nanowires: Shape control, dispersion, and electrical properties. Journal of Applied Physics, 2007, 102, .	1.1	80
178	State of the catalyst during carbon nanotube growth. Diamond and Related Materials, 2009, 18, 940-945.	1.8	80
179	Deposition of tetrahedral hydrogenated amorphous carbon using a novel electron cyclotron wave resonance reactor. Applied Physics Letters, 1998, 72, 1314-1316.	1.5	79
180	Atomic mechanism of electric dipole formed at high-K: SiO2 interface. Journal of Applied Physics, 2011, 109, .	1.1	79

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181	Criteria for formation of single layer, duplex, and breakaway scales on steels. Materials Science and Technology, 1988, 4, 1064-1071.	0.8	78
182	Ї€-bonded clusters in amorphous carbon materials. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1992, 66, 199-209.	0.6	78
183	Electronic structure studies of undoped and nitrogen-doped tetrahedral amorphous carbon using high-resolution electron energy-loss spectroscopy. Journal of Applied Physics, 2001, 89, 3783-3792.	1.1	78
184	Substrate-assisted nucleation of ultra-thin dielectric layers on graphene by atomic layer deposition. Applied Physics Letters, 2012, 100, .	1.5	78
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