Georg S Duesberg

List of Publications by Year
in descending order

271 papers	36,575 citations	8159 76 h-index	3021 188 g-index
277 all docs	277 docs citations	277 times ranked	36817 citing authors

#	Article	IF	Citations
1	Two-Dimensional Nanosheets Produced by Liquid Exfoliation of Layered Materials. Science, 2011, 331, 568-571.	6.0	6,190
2	High-yield production of graphene by liquid-phase exfoliation of graphite. Nature Nanotechnology, 2008, 3, 563-568.	15.6	5,431
3	Liquid Phase Production of Graphene by Exfoliation of Graphite in Surfactant/Water Solutions. Journal of the American Chemical Society, 2009, 131, 3611-3620.	6.6	2,038
4	Scalable production of large quantities of defect-free few-layer graphene by shear exfoliation in liquids. Nature Materials, 2014, 13, 624-630.	13.3	1,958
5	Oxidation Stability of Colloidal Two-Dimensional Titanium Carbides (MXenes). Chemistry of Materials, 2017, 29, 4848-4856.	3.2	1,120
6	Largeâ€Scale Exfoliation of Inorganic Layered Compounds in Aqueous Surfactant Solutions. Advanced Materials, 2011, 23, 3944-3948.	11.1	1,012
7	Liquid exfoliation of solvent-stabilized few-layer black phosphorus for applications beyond electronics. Nature Communications, 2015, 6, 8563.	5.8	921
8	Transparent, Flexible, and Conductive 2D Titanium Carbide (MXene) Films with High Volumetric Capacitance. Advanced Materials, 2017, 29, 1702678.	11.1	756
9	Carbon nanotubes in interconnect applications. Microelectronic Engineering, 2002, 64, 399-408.	1.1	566
10	Highâ€Performance Sensors Based on Molybdenum Disulfide Thin Films. Advanced Materials, 2013, 25, 6699-6702.	11.1	435
11	Edge and confinement effects allow in situ measurement of size and thickness of liquid-exfoliated nanosheets. Nature Communications, 2014, 5, 4576.	5.8	432
12	Polarized Raman Spectroscopy on Isolated Single-Wall Carbon Nanotubes. Physical Review Letters, 2000, 85, 5436-5439.	2.9	423
13	Transparent carbon nanotube coatings. Applied Surface Science, 2005, 252, 425-429.	3.1	397
14	A Commercial Conducting Polymer as Both Binder and Conductive Additive for Silicon Nanoparticle-Based Lithium-Ion Battery Negative Electrodes. ACS Nano, 2016, 10, 3702-3713.	7.3	394
15	All-printed thin-film transistors from networks of liquid-exfoliated nanosheets. Science, 2017, 356, 69-73.	6.0	391
16	Flexible, Transparent, Conducting Films of Randomly Stacked Graphene from Surfactantâ€Stabilized, Oxideâ€Free Graphene Dispersions. Small, 2010, 6, 458-464.	5.2	371
17	Production and processing of graphene and related materials. 2D Materials, 2020, 7, 022001.	2.0	333
18	Direct Observation of Degenerate Two-Photon Absorption and Its Saturation in WS₂ and MoS₂ Monolayer and Few-Layer Films. ACS Nano, 2015, 9, 7142-7150.	7.3	322

#	Article	IF	Citations
19	High-Performance Hybrid Electronic Devices from Layered PtSe₂ Films Grown at Low Temperature. ACS Nano, 2016, 10, 9550-9558.	7.3	310
20	Basal-Plane Functionalization of Chemically Exfoliated Molybdenum Disulfide by Diazonium Salts. ACS Nano, 2015, 9, 6018-6030.	7.3	293
21	Production of Molybdenum Trioxide Nanosheets by Liquid Exfoliation and Their Application in High-Performance Supercapacitors. Chemistry of Materials, 2014, 26, 1751-1763.	3.2	266
22	Investigation of the optical properties of MoS₂ thin films using spectroscopic ellipsometry. Applied Physics Letters, 2014, 104, 103114.	1.5	255
23	Silicon-Nanowire Transistors with Intruded Nickel-Silicide Contacts. Nano Letters, 2006, 6, 2660-2666.	4.5	231
24	Electrochemical ascorbic acid sensor based on DMF-exfoliated graphene. Journal of Materials Chemistry, 2010, 20, 7864.	6.7	224
25	Electrical Characteristics of Molybdenum Disulfide Flakes Produced by Liquid Exfoliation. Advanced Materials, 2011, 23, 4178-4182.	11.1	224
26	Functionalization of Liquidâ€Exfoliated Twoâ€Dimensional 2Hâ€MoS₂. Angewandte Chemie - International Edition, 2015, 54, 2638-2642.	7.2	219
27	Functionalization of Twoâ€Dimensional MoS₂: On the Reaction Between MoS₂ and Organic Thiols. Angewandte Chemie - International Edition, 2016, 55, 5803-5808.	7.2	219
28	In Situ Formed Protective Barrier Enabled by Sulfur@Titanium Carbide (MXene) Ink for Achieving Highâ€Capacity, Long Lifetime Liâ€S Batteries. Advanced Science, 2018, 5, 1800502.	5.6	210
29	Plasma-assisted simultaneous reduction and nitrogen doping of graphene oxide nanosheets. Journal of Materials Chemistry A, 2013, 1, 4431.	5.2	198
30	Preparation of Gallium Sulfide Nanosheets by Liquid Exfoliation and Their Application As Hydrogen Evolution Catalysts. Chemistry of Materials, 2015, 27, 3483-3493.	3.2	195
31	Noncovalently Functionalized Monolayer Graphene for Sensitivity Enhancement of Surface Plasmon Resonance Immunosensors. Journal of the American Chemical Society, 2015, 137, 2800-2803.	6.6	190
32	Interconnection of carbon nanotubes by chemical functionalization. Applied Physics Letters, 2002, 80, 3811-3813.	1.5	188
33	How do carbon nanotubes fit into the semiconductor roadmap?. Applied Physics A: Materials Science and Processing, 2005, 80, 1141-1151.	1.1	172
34	Raman characterization of platinum diselenide thin films. 2D Materials, 2016, 3, 021004.	2.0	172
35	Nanopatterning and Electrical Tuning of MoS₂ Layers with a Subnanometer Helium Ion Beam. Nano Letters, 2015, 15, 5307-5313.	4.5	171
36	Nanoscale Mapping of Electrical Resistivity and Connectivity in Graphene Strips and Networks. Nano Letters, 2011, 11, 16-22.	4.5	170

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37	Raman Modes of Index-Identified Freestanding Single-Walled Carbon Nanotubes. Physical Review Letters, 2005, 95, 217401.	2.9	169
38	Chemical Vapor Deposition Growth of Single-Walled Carbon Nanotubes at 600 Â°C and a Simple Growth Model. Journal of Physical Chemistry B, 2004, 108, 1888-1893.	1.2	157
39	Chemically Modulated Graphene Diodes. Nano Letters, 2013, 13, 2182-2188.	4.5	156
40	Growth and electrical transport of germanium nanowires. Journal of Applied Physics, 2001, 90, 5747-5751.	1.1	152
41	Plasma assisted synthesis of WS2 for gas sensing applications. Chemical Physics Letters, 2014, 615, 6-10.	1.2	150
42	Controlled synthesis of transition metal dichalcogenide thin films for electronic applications. Applied Surface Science, 2014, 297, 139-146.	3.1	144
43	High-Current Nanotube Transistors. Nano Letters, 2004, 4, 831-834.	4.5	143
44	Wide Spectral Photoresponse of Layered Platinum Diselenide-Based Photodiodes. Nano Letters, 2018, 18, 1794-1800.	4.5	140
45	Low-Overpotential High-Activity Mixed Manganese and Ruthenium Oxide Electrocatalysts for Oxygen Evolution Reaction in Alkaline Media. ACS Catalysis, 2016, 6, 2408-2415.	5.5	139
46	Memory and Threshold Resistance Switching in Ni/NiO Coreâ€“Shell Nanowires. Nano Letters, 2011, 11, 4601-4606.	4.5	136
47	Langmuirâ^'Blodgett Films of Matrix-Diluted Single-Walled Carbon Nanotubes. Chemistry of Materials, 1998, 10, 2338-2340.	3.2	131
48	Sub-20 nm Short Channel Carbon Nanotube Transistors. Nano Letters, 2005, 5, 147-150.	4.5	128
49	Comparison of liquid exfoliated transition metal dichalcogenides reveals MoSe₂to be the most effective hydrogen evolution catalyst. Nanoscale, 2016, 8, 5737-5749.	2.8	127
50	Highly Sensitive Electromechanical Piezoresistive Pressure Sensors Based on Large-Area Layered PtSe₂ Films. Nano Letters, 2018, 18, 3738-3745.	4.5	125
51	Carbon Nanotube Applications in Microelectronics. IEEE Transactions on Components and Packaging Technologies, 2004, 27, 629-634.	1.4	121
52	Controlled deposition of carbon nanotubes on a patterned substrate. Surface Science, 2000, 462, 195-202.	0.8	117
53	Synthesis and analysis of thin conducting pyrolytic carbon films. Carbon, 2012, 50, 1216-1226.	5.4	116
54	Thickness Dependence and Percolation Scaling of Hydrogen Production Rate in MoS₂ Nanosheet and Nanosheetâ€“Carbon Nanotube Composite Catalytic Electrodes. ACS Nano, 2016, 10, 672-683.	7.3	116

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55	Mapping of Low-Frequency Raman Modes in CVD-Grown Transition Metal Dichalcogenides: Layer Number, Stacking Orientation and Resonant Effects. Scientific Reports, 2016, 6, 19476.	1.6	111
56	MoS₂ Memtransistors Fabricated by Localized Helium Ion Beam Irradiation. ACS Nano, 2019, 13, 14262-14273.	7.3	99
57	Large-area integration of two-dimensional materials and their heterostructures by wafer bonding. Nature Communications, 2021, 12, 917.	5.8	99
58	Strain, Bubbles, Dirt, and Folds: A Study of Graphene Polymerâ€Assisted Transfer. Advanced Materials Interfaces, 2014, 1, 1400115.	1.9	98
59	Simultaneous electrochemical determination of dopamine and paracetamol based on thin pyrolytic carbon films. Analytical Methods, 2012, 4, 2048.	1.3	95
60	The effect of downstream plasma treatments on graphene surfaces. Carbon, 2012, 50, 395-403.	5.4	95
61	Induction of Chirality in Two-Dimensional Nanomaterials: Chiral 2D MoS₂ Nanostructures. ACS Nano, 2018, 12, 954-964.	7.3	93
62	Nanoelectromechanical Sensors Based on Suspended 2D Materials. Research, 2020, 2020, 8748602.	2.8	93
63	Raman spectroscopy on single- and multi-walled nanotubes under high pressure. Applied Physics A: Materials Science and Processing, 1999, 69, 309-312.	1.1	91
64	Towards the integration of carbon nanotubes in microelectronics. Diamond and Related Materials, 2004, 13, 1296-1300.	1.8	91
65	Carbon Nanotubes for Microelectronics?. Small, 2005, 1, 382-390.	5.2	90
66	Effect of Percolation on the Capacitance of Supercapacitor Electrodes Prepared from Composites of Manganese Dioxide Nanoplatelets and Carbon Nanotubes. ACS Nano, 2014, 8, 9567-9579.	7.3	89
67	Nitrogen-doped reduced graphene oxide electrodes for electrochemical supercapacitors. Physical Chemistry Chemical Physics, 2014, 16, 2280.	1.3	87
68	Dispersion of nonlinear refractive index in layered WS_2 and WSe_2 semiconductor films induced by two-photon absorption. Optics Letters, 2016, 41, 3936.	1.7	86
69	Characterization of graphene-silicon Schottky barrier diodes using impedance spectroscopy. Applied Physics Letters, 2013, 103, 193106.	1.5	82
70	Oxide-mediated recovery of field-effect mobility in plasma-treated MoS ₂. Science Advances, 2018, 4, eaao5031.	4.7	82
71	A new purification method for single-wall carbon nanotubes (SWNTs). Applied Physics A: Materials Science and Processing, 2000, 70, 599-602.	1.1	81
72	DMF-exfoliated graphene for electrochemical NADH detection. Physical Chemistry Chemical Physics, 2011, 13, 7747.	1.3	81

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73	Chromatography of carbon nanotubes. Synthetic Metals, 1999, 103, 2484-2485.	2.1	80
74	Carbon nanotubes for microelectronics: status and future prospects. Materials Science and Engineering C, 2003, 23, 663-669.	3.8	80
75	Heterojunction Hybrid Devices from Vapor Phase Grown MoS2. Scientific Reports, 2014, 4, 5458.	1.6	80
76	Saturation of Two-Photon Absorption in Layered Transition Metal Dichalcogenides: Experiment and Theory. ACS Photonics, 2018, 5, 1558-1565.	3.2	79
77	Highly sensitive, transparent, and flexible gas sensors based on gold nanoparticle decorated carbon nanotubes. Sensors and Actuators B: Chemical, 2013, 188, 571-575.	4.0	77
78	Functionalisation of graphene surfaces with downstream plasma treatments. Carbon, 2013, 54, 283-290.	5.4	77
79	Large variations in both dark- and photoconductivity in nanosheet networks as nanomaterial is varied from MoS₂to WTe₂. Nanoscale, 2015, 7, 198-208.	2.8	76
80	Growth of Isolated Carbon Nanotubes with Lithographically Defined Diameter and Location. Nano Letters, 2003, 3, 257-259.	4.5	75
81	Percolation scaling in composites of exfoliated MoS2 filled with nanotubes and graphene. Nanoscale, 2012, 4, 6260.	2.8	75
82	Electrical devices from top-down structured platinum diselenide films. Npj 2D Materials and Applications, 2018, 2, .	3.9	74
83	Reduced contact resistance between an individual single-walled carbon nanotube and a metal electrode by a local point annealing. Nanotechnology, 2007, 18, 095203.	1.3	73
84	Photoluminescence from Liquidâ€Exfoliated WS₂ Monomers in Poly(Vinyl Alcohol) Polymer Composites. Advanced Functional Materials, 2016, 26, 1028-1039.	7.8	73
85	Transition Metal Dichalcogenide Growth via Close Proximity Precursor Supply. Scientific Reports, 2014, 4, 7374.	1.6	72
86	Electron diffraction analysis of individual single-walled carbon nanotubes. Ultramicroscopy, 2006, 106, 176-190.	0.8	71
87	Production of Ni(OH)₂nanosheets by liquid phase exfoliation: from optical properties to electrochemical applications. Journal of Materials Chemistry A, 2016, 4, 11046-11059.	5.2	71
88	Enabling Flexible Heterostructures for Liâ€Ion Battery Anodes Based on Nanotube and Liquidâ€Phase Exfoliated 2D Gallium Chalcogenide Nanosheet Colloidal Solutions. Small, 2017, 13, 1701677.	5.2	71
89	Carbon nanotubes acting like actuators. Carbon, 2002, 40, 1735-1739.	5.4	70
90	Ion irradiation induced structural and electrical transition in graphene. Journal of Chemical Physics, 2010, 133, 234703.	1.2	70

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91	Quantum confinement-induced semimetal-to-semiconductor evolution in large-area ultra-thin PtSe2 films grown at 400â€‰Â°C. Npj 2D Materials and Applications, 2019, 3, .	3.9	69
92	Electronic transport in carbon nanotube ropes and mats. Synthetic Metals, 1999, 103, 2547-2550.	2.1	68
93	Helium ion microscopy of graphene: beam damage, image quality and edge contrast. Nanotechnology, 2013, 24, 335702.	1.3	68
94	A perfect match. Nature Materials, 2014, 13, 1075-1076.	13.3	68
95	Large Magnetoresistance in Few Layer Graphene Stacks with Current Perpendicular to Plane Geometry. Advanced Materials, 2012, 24, 1862-1866.	11.1	66
96	Ways towards the scaleable integration of carbon nanotubes into silicon based technology. Diamond and Related Materials, 2004, 13, 354-361.	1.8	65
97	Spectral sensitivity of graphene/silicon heterojunction photodetectors. Solid-State Electronics, 2016, 115, 207-212.	0.8	65
98	Graphene field emission devices. Applied Physics Letters, 2014, 105, 103107.	1.5	62
99	In-Situ Contacted Single-Walled Carbon Nanotubes and Contact Improvement by Electroless Deposition. Nano Letters, 2003, 3, 965-968.	4.5	60
100	Bias dependence and electrical breakdown of small diameter single-walled carbon nanotubes. Journal of Applied Physics, 2004, 96, 6694-6699.	1.1	60
101	Electrochromic Nickel Oxide Films for Smart Window Applications. International Journal of Electrochemical Science, 2016, 11, 6636-6647.	0.5	60
102	Ultrafast Carrier Dynamics and Bandgap Renormalization in Layered PtSe₂. Small, 2019, 15, e1902728.	5.2	60
103	Large-scale parallel arrays of silicon nanowires via block copolymer directed self-assembly. Nanoscale, 2012, 4, 3228.	2.8	59
104	Siteâ€Specific Transferâ€Printing of Individual Graphene Microscale Patterns to Arbitrary Surfaces. Advanced Materials, 2011, 23, 3938-3943.	11.1	55
105	Towards processing of carbon nanotubes for technical applications. Applied Physics A: Materials Science and Processing, 1999, 69, 269-274.	1.1	54
106	Insights into Multilevel Resistive Switching in Monolayer MoS₂. ACS Applied Materials & Interfaces, 2020, 12, 6022-6029.	4.0	54
107	Spin-dependent transport properties of Fe3O4/MoS2/Fe3O4 junctions. Scientific Reports, 2015, 5, 15984.	1.6	53
108	Molybdenum disulfide/pyrolytic carbon hybrid electrodes for scalable hydrogen evolution. Nanoscale, 2014, 6, 8185.	2.8	48

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109	The goldilocks electrolyte: examining the performance of iron/nickel oxide thin films as catalysts for electrochemical water splitting in various aqueous NaOH solutions. Journal of Materials Chemistry A, 2016, 4, 11397-11407.	5.2	47
110	Raman Imaging of Single Carbon Nanotubes. Advanced Materials, 2000, 12, 1210-1214.	11.1	46
111	Functionalization of Twoâ€Dimensional MoS₂: On the Reaction Between MoS₂ and Organic Thiols. Angewandte Chemie, 2016, 128, 5897-5902.	1.6	46
112	Defect sizing, separation, and substrate effects in ion-irradiated monolayer two-dimensional materials. Physical Review B, 2018, 98, .	1.1	46
113	Atom-Resolved Evidence of Anisotropic Growth in ZnS Nanotetrapods. Nano Letters, 2011, 11, 2983-2988.	4.5	43
114	Electroanalytical Sensing Properties of Pristine and Functionalized Multilayer Graphene. Chemistry of Materials, 2014, 26, 1807-1812.	3.2	43
115	Gas phase controlled deposition of high quality large-area graphene films. Chemical Communications, 2010, 46, 1422.	2.2	42
116	Perforating Freestanding Molybdenum Disulfide Monolayers with Highly Charged Ions. Journal of Physical Chemistry Letters, 2019, 10, 904-910.	2.1	42
117	Reversible bending of carbon nanotubes using a transmission electron microscope. Applied Physics Letters, 1998, 73, 1961-1963.	1.5	41
118	Contact improvement of carbon nanotubes via electroless nickel deposition. Applied Physics A: Materials Science and Processing, 2003, 77, 731-734.	1.1	41
119	Hydrothermal functionalisation of single-walled carbon nanotubes. Synthetic Metals, 2004, 142, 263-266.	2.1	40
120	Field Emission Characteristics of Contact Printed Graphene Fins. Small, 2014, 10, 95-99.	5.2	40
121	Rhenium-doped MoS2 films. Applied Physics Letters, 2017, 111, .	1.5	40
122	Decoration of multi-walled carbon nanotubes with noble- and transition-metal clusters and formation of CNT?CNT networks. Applied Physics A: Materials Science and Processing, 2003, 77, 735-738.	1.1	39
123	Atomic layer deposition on 2D transition metal chalcogenides: layer dependent reactivity and seeding with organic ad-layers. Chemical Communications, 2015, 51, 16553-16556.	2.2	39
124	Intensities of the Raman-active modes in single and multiwall nanotubes. Physical Review B, 2001, 63, .	1.1	38
125	Improving the performance of porous nickel foam for water oxidation using hydrothermally prepared Ni and Fe metal oxides. Sustainable Energy and Fuels, 2017, 1, 207-216.	2.5	38
126	Investigations of vapour-phase deposited transition metal dichalcogenide films for future electronic applications. Solid-State Electronics, 2016, 125, 39-51.	0.8	36

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127	Functionalization of Liquidâ€Exfoliated Twoâ€Dimensional 2Hâ€MoS₂. Angewandte Chemie, 2015, 127, 2676-2680.	1.6	35
128	Liquid phase exfoliation of MoO₂ nanosheets for lithium ion battery applications. Nanoscale Advances, 2019, 1, 1560-1570.	2.2	35
129	Electrical transport in single-walled carbon nanotube bundles embedded in Langmuirâ€“Blodgett monolayers. Synthetic Metals, 2000, 110, 245-249.	2.1	34
130	Reliable processing of graphene using metal etchmasks. Nanoscale Research Letters, 2011, 6, 390.	3.1	34
131	Transparent ultrathin conducting carbon films. Applied Surface Science, 2010, 256, 6186-6190.	3.1	33
132	A New 2H-2Hâ€²/1T Cophase in Polycrystalline MoS₂ and MoSe₂ Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 31442-31448.	4.0	33
133	Quantum Confinement and Gas Sensing of Mechanically Exfoliated GaSe. Advanced Materials Technologies, 2017, 2, 1600197.	3.0	33
134	Wafer-Scale Fabrication of Recessed-Channel PtSe₂ MOSFETs With Low Contact Resistance and Improved Gate Control. IEEE Transactions on Electron Devices, 2018, 65, 4102-4108.	1.6	33
135	PtSe ₂ grown directly on polymer foil for use as a robust piezoresistive sensor. 2D Materials, 2019, 6, 045029.	2.0	33
136	CVD growth and processing of graphene for electronic applications. Physica Status Solidi (B): Basic Research, 2011, 248, 2604-2608.	0.7	31
137	Template-free synthesis of mesoporous manganese oxides with catalytic activity in the oxygen evolution reaction. Sustainable Energy and Fuels, 2017, 1, 780-788.	2.5	31
138	Grain boundary-mediated nanopores in molybdenum disulfide grown by chemical vapor deposition. Nanoscale, 2017, 9, 1591-1598.	2.8	31
139	Borophenes made easy. Science Advances, 2021, 7, eabk1490.	4.7	31
140	Growth of 1Tâ€² MoTe₂ by Thermally Assisted Conversion of Electrodeposited Tellurium Films. ACS Applied Energy Materials, 2019, 2, 521-530.	2.5	30
141	Fluorination of carbon nanotubes with xenon difluoride. Chemical Physics Letters, 2004, 399, 280-283.	1.2	29
142	Low wavenumber Raman spectroscopy of highly crystalline MoSe₂grown by chemical vapor deposition. Physica Status Solidi (B): Basic Research, 2015, 252, 2385-2389.	0.7	29
143	Investigation of growth-induced strain in monolayer MoS2 grown by chemical vapor deposition. Applied Surface Science, 2020, 508, 145126.	3.1	29
144	Defect Engineering of Twoâ€Dimensional Molybdenum Disulfide. Chemistry - A European Journal, 2020, 26, 6535-6544.	1.7	29

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145	AFM-IR and IR-SNOM for the Characterization of Small Molecule Organic Semiconductors. Journal of Physical Chemistry C, 2020, 124, 5331-5344.	1.5	29
146	Imaging and identification of point defects in PtTe2. Npj 2D Materials and Applications, 2021, 5, .	3.9	29
147	Covalent Bisfunctionalization of Twoâ€Dimensional Molybdenum Disulfide. Angewandte Chemie - International Edition, 2021, 60, 13484-13492.	7.2	28
148	Controlled Folding of Graphene: GraFold Printing. Nano Letters, 2015, 15, 857-863.	4.5	27
149	Carbon SWNTs as wires and structural templates between nanoelectrodes. Synthetic Metals, 1999, 103, 2540-2542.	2.1	26
150	Silicon nanowires: catalytic growth and electrical characterization. Physica Status Solidi (B): Basic Research, 2006, 243, 3340-3345.	0.7	26
151	Growth of high-density carbon nanotube forests on conductive TiSiN supports. Applied Physics Letters, 2015, 106, 083108.	1.5	26
152	Raman Spectroscopy of Suspended MoS₂. Physica Status Solidi (B): Basic Research, 2017, 254, 1700218.	0.7	26
153	Optimized single-layer MoS₂ field-effect transistors by non-covalent functionalisation. Nanoscale, 2018, 10, 17557-17566.	2.8	26
154	Thin film pyrolytic carbon electrodes: A new class of carbon electrode for electroanalytical sensing applications. Electrochemistry Communications, 2010, 12, 1034-1036.	2.3	25
155	Investigation of the Interfaces in Schottky Diodes Using Equivalent Circuit Models. ACS Applied Materials & Interfaces, 2013, 5, 6951-6958.	4.0	25
156	Understanding and optimising the packing density of perylene bisimide layers on CVD-grown graphene. Nanoscale, 2015, 7, 16337-16342.	2.8	25
157	Effects of Excitonic Resonance on Second and Third Order Nonlinear Scattering from Few-Layer MoS₂. ACS Photonics, 2018, 5, 1235-1240.	3.2	25
158	Modification of Single-Walled Carbon Nanotubes by Hydrothermal Treatment. Chemistry of Materials, 2003, 15, 3314-3319.	3.2	24
159	Vertical Single-Crystalline Organic Nanowires on Graphene: Solution-Phase Epitaxy and Optical Microcavities. Nano Letters, 2016, 16, 4754-4762.	4.5	24
160	Origami-based spintronics in graphene. Europhysics Letters, 2013, 104, 47001.	0.7	23
161	Low-temperature synthesis and electrocatalytic application of large-area PtTe₂ thin films. Nanotechnology, 2020, 31, 375601.	1.3	23
162	Highly Sensitive, Selective, Stable, and Flexible NO₂ Sensor Based on GaSe. Advanced Materials Technologies, 2020, 5, 1901085.	3.0	23

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163	Sub-millimeter size high mobility single crystal MoSe₂ monolayers synthesized by NaCl-assisted chemical vapor deposition. RSC Advances, 2020, 10, 1580-1587.	1.7	23
164	Lateral size selection of surfactant-stabilised graphene flakes using size exclusion chromatography. Chemical Physics Letters, 2012, 531, 169-172.	1.2	21
165	Spectroscopic thickness and quality metrics for PtSe₂ layers produced by top-down and bottom-up techniques. 2D Materials, 2020, 7, 045027.	2.0	21
166	An investigation of the electrical properties of pyrolytic carbon in reduced dimensions: Vias and wires. Journal of Applied Physics, 2010, 107, .	1.1	20
167	Hot-Volumes as Uniform and Reproducible SERS-Detection Enhancers in Weakly-Coupled Metallic Nanohelices. Scientific Reports, 2017, 7, 45548.	1.6	20
168	Dependence of Photocurrent Enhancements in Quantum Dot (QD)â€Sensitized MoS₂ Devices on MoS₂ Film Properties. Advanced Functional Materials, 2018, 28, 1706149.	7.8	20
169	Calibration of Nonstationary Gas Sensors Based on Two-Dimensional Materials. ACS Omega, 2020, 5, 5959-5963.	1.6	20
170	Thermally Prepared Mn₂O₃/RuO₂/Ru Thin Films as Highly Active Catalysts for the Oxygen Evolution Reaction in Alkaline Media. ChemElectroChem, 2016, 3, 1847-1855.	1.7	19
171	Nanoelectronics beyond silicon. Microelectronic Engineering, 2006, 83, 619-623.	1.1	18
172	Synthesis and characterisation of thin-film platinum disulfide and platinum sulfide. Nanoscale, 2021, 13, 7403-7411.	2.8	18
173	Magnetoresistance of Fe3O4-graphene-Fe3O4 junctions. Applied Physics Letters, 2011, 98, 052511.	1.5	17
174	Inkjet-defined field-effect transistors from chemical vapour deposited graphene. Carbon, 2014, 71, 332-337.	5.4	17
175	Lithium Titanate/Carbon Nanotubes Composites Processed by Ultrasound Irradiation as Anodes for Lithium Ion Batteries. Scientific Reports, 2017, 7, 7614.	1.6	17
176	Fieldâ€Dependent Electrical and Thermal Transport in Polycrystalline WSe₂. Advanced Materials Interfaces, 2018, 5, 1701161.	1.9	17
177	Correlating Nanocrystalline Structure with Electronic Properties in 2D Platinum Diselenide. Advanced Functional Materials, 2021, 31, 2102929.	7.8	17
178	Hybrid Devices by Selective and Conformal Deposition of PtSe₂ at Low Temperatures. Advanced Functional Materials, 2021, 31, 2103936.	7.8	17
179	Large area suspended graphene for nano-mechanical devices. Physica Status Solidi (B): Basic Research, 2015, 252, 2429-2432.	0.7	16
180	Photoresponsivity enhancement in monolayer MoS2 by rapid O2:Ar plasma treatment. Applied Physics Letters, 2019, 114, .	1.5	16

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181	Few-Layer MoS₂/a-Si:H Heterojunction Pin-Photodiodes for Extended Infrared Detection. ACS Photonics, 2019, 6, 1372-1378.	3.2	15
182	Carbon / high-k Trench Capacitor for the 40nm DRAM Generation. , 2007, , .		14
183	On-surface derivatisation of aromatic molecules on graphene: the importance of packing density. Chemical Communications, 2015, 51, 16778-16781.	2.2	14
184	Large-area growth of MoS₂ at temperatures compatible with integrating back-end-of-line functionality. 2D Materials, 2021, 8, 025008.	2.0	14
185	Two-Dimensional Platinum Diselenide Waveguide-Integrated Infrared Photodetectors. ACS Photonics, 2022, 9, 859-867.	3.2	14
186	Production of 3Dâ€shaped graphene via transfer printing. Physica Status Solidi (B): Basic Research, 2012, 249, 2515-2518.	0.7	13
187	A comparison of catabolic pathways induced in primary macrophages by pristine single walled carbon nanotubes and pristine graphene. RSC Advances, 2016, 6, 65299-65310.	1.7	13
188	Rapid and Large-Area Visualization of Grain Boundaries in MoS₂ on SiO₂ Using Vapor Hydrofluoric Acid. ACS Applied Materials & Interfaces, 2020, 12, 34049-34057.	4.0	13
189	Application of scanning force microscopy in nanotube science. Applied Physics A: Materials Science and Processing, 1999, 69, 261-267.	1.1	12
190	Carbonâ€“Silicon Schottky Barrier Diodes. Small, 2012, 8, 1360-1364.	5.2	12
191	Largeâ€Scale Diffusion Barriers from CVD Grown Graphene. Advanced Materials Interfaces, 2015, 2, 1500082.	1.9	12
192	Interface and strain effects on the fabrication of suspended CVD graphene devices. Solid-State Electronics, 2015, 108, 75-83.	0.8	12
193	Atmospheric pulsed laser deposition and thermal annealing of plasmonic silver nanoparticle films. Nanotechnology, 2017, 28, 445601.	1.3	12
194	Defect-moderated oxidative etching of MoS2. Journal of Applied Physics, 2019, 126, .	1.1	12
195	Postsynthetic treatment of nickelâ€“iron layered double hydroxides for the optimum catalysis of the oxygen evolution reaction. Npj 2D Materials and Applications, 2021, 5, .	3.9	12
196	Long-chain amine-templated synthesis of gallium sulfide and gallium selenide nanotubes. Nanoscale, 2016, 8, 11698-11706.	2.8	11
197	Controlling Defect and Dopant Concentrations in Graphene by Remote Plasma Treatments. Physica Status Solidi (B): Basic Research, 2017, 254, 1700214.	0.7	11
198	Synthesis of tungsten ditelluride thin films and highly crystalline nanobelts from pre-deposited reactants. Tungsten, 2020, 2, 321-334.	2.0	11

#	Article	IF	Citations
199	Transport properties of single-walled carbon nanotubes. Synthetic Metals, 1999, 103, 2513-2514.	2.1	10
200	Control of the plasmonic near-field in metallic nanohelices. Nanotechnology, 2018, 29, 325204.	1.3	10
201	Enhanced photoresponse of graphene oxide functionalised SnSe films. AIP Advances, 2018, 8, 075123.	0.6	10
202	Electronic and structural characterisation of polycrystalline platinum disulfide thin films. RSC Advances, 2020, 10, 42001-42007.	1.7	10
203	Probing the Impact of Tribolayers on Enhanced Wear Resistance Behavior of Carbon-Rich Molybdenum-Based Coatings. ACS Applied Materials & Interfaces, 2022, 14, 26148-26161.	4.0	10
204	Growth optimisation of high quality graphene from ethene at low temperatures. Chemical Physics Letters, 2014, 595-596, 192-196.	1.2	9
205	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
206	Dependence of Photocurrent Enhancements in Hybrid Quantum Dot-MoS₂ Devices on Quantum Dot Emission Wavelength. ACS Photonics, 2019, 6, 976-984.	3.2	9
207	Directing the Morphology of Chemical Vapor Depositionâ€Grown MoS₂ on Sapphire by Crystal Plane Selection. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000073.	0.8	9
208	Highly Selective Nonâ€Covalent Onâ€Chip Functionalization of Layered Materials. Advanced Electronic Materials, 2021, 7, 2000564.	2.6	9
209	Covalent Patterning of 2D MoS₂. Chemistry - A European Journal, 2021, 27, 13117-13122.	1.7	9
210	Low Temperature Graphene Growth. ECS Transactions, 2009, 19, 175-181.	0.3	8
211	Electrical properties of high density arrays of silicon nanowire field effect transistors. Journal of Applied Physics, 2013, 114, 144503.	1.1	8
212	Polymer-assisted transfer printing of graphene composite films. Physica Status Solidi (B): Basic Research, 2013, 250, 2668-2671.	0.7	8
213	Terahertz Spectroscopy of Amorphous WSe2 and MoSe2 Thin Films. Materials, 2018, 11, 1613.	1.3	8
214	Suppression of the metal-insulator transition in magnetron sputtered Ti2O3 films. Thin Solid Films, 2020, 694, 137642.	0.8	8
215	Cell Proliferation Tracking Using Graphene Sensor Arrays. Journal of Sensors, 2012, 2012, 1-7.	0.6	7
216	Siteâ€Selective Oxidation of Monolayered Liquidâ€Exfoliated WS₂ by Shielding the Basal Plane through Adsorption of a Facial Amphiphile. Angewandte Chemie, 2020, 132, 13889-13896.	1.6	7

#	Article	IF	Citations
217	Influence of defect density on the gas sensing properties of multi-layered graphene grown by chemical vapor deposition. Carbon Trends, 2021, 3, 100024.	1.4	7
218	Siteâ€Selective Oxidation of Monolayered Liquidâ€Exfoliated WS₂ by Shielding the Basal Plane through Adsorption of a Facial Amphiphile. Angewandte Chemie - International Edition, 2020, 59, 13785-13792.	7.2	7
219	Investigation of carbon-silicon schottky diodes and their use as chemical sensors. , 2013, , .		6
220	Spectral sensitivity of a graphene/silicon pn-junction photodetector. , 2015, , .		6
221	Structural and Electrical Investigation of MoS₂Thin Films Formed by Thermal Assisted Conversion of Mo Metal. ECS Journal of Solid State Science and Technology, 2016, 5, Q3016-Q3020.	0.9	6
222	Functionalization of Contacted Carbon Nanotube Forests by Dip Coating for Highâ€Performance Biocathodes. ChemElectroChem, 2020, 7, 4685-4689.	1.7	6
223	Effect of localized helium ion irradiation on the performance of synthetic monolayer MoS₂ field-effect transistors. Beilstein Journal of Nanotechnology, 2020, 11, 1329-1335.	1.5	6
224	Crystal-structure of active layers of small molecule organic photovoltaics before and after solvent vapor annealing. Zeitschrift Fur Kristallographie - Crystalline Materials, 2020, 235, 15-28.	0.4	6
225	Novel purification procedure and derivatization method of single-walled carbon nanotubes (SWNTs). AIP Conference Proceedings, 2000, , .	0.3	5
226	Nitrogen-doped pyrolytic carbon films as highly electrochemically active electrodes. Physical Chemistry Chemical Physics, 2013, 15, 18688.	1.3	5
227	Suppression of the shear Raman mode in defective bilayer MoS2. Journal of Applied Physics, 2019, 125, .	1.1	5
228	Low-Humidity Sensing Properties of Multi-Layered Graphene Grown by Chemical Vapor Deposition. Sensors, 2020, 20, 3174.	2.1	5
229	Graphene resist interlacing process for versatile fabrication of free-standing graphene. Nanotechnology, 2012, 23, 145302.	1.3	4
230	Investigation of 2D transition metal dichalcogenide films for electronic devices. , 2015, , .		4
231	Hydrogenation of diamond nanowire surfaces for effective electrostatic charge storage. Nanoscale, 2021, 13, 7308-7321.	2.8	4
232	Controlled Adsorption of Carbon Nanotubes on Chemically Modified Electrode Arrays. , 1998, 10, 584.		4
233	Stacking Polymorphism in PtSe₂ Drastically Affects Its Electromechanical Properties. Advanced Science, 2022, 9, .	5.6	4
234	Electrical Interconnects Made of Carbon Nanotubes. AIP Conference Proceedings, 2004, , .	0.3	3

#	Article	IF	Citations
235	Investigation of carbonâ€“silicon Schottky barrier diodes. Physica Status Solidi (B): Basic Research, 2012, 249, 2553-2557.	0.7	3
236	Remote Plasmaâ€Assisted CVD Growth of Carbon Nanotubes in an Optimised Rapid Thermal Reactor. Chemical Vapor Deposition, 2012, 18, 17-21.	1.4	3
237	Synthesis of layered platelets by self-assembly of rhenium-based clusters directed by long-chain amines. Npj 2D Materials and Applications, 2017, 1, .	3.9	3
238	Tuning the Photoâ€electrochemical Performance of Ru II â€Sensitized Twoâ€Dimensional MoS 2. Chemistry - A European Journal, 2021, 27, 984-992.	1.7	3
239	2-D localization in single wall carbon nanotube network synthesized by arc-plasma method. Synthetic Metals, 1999, 103, 2551-2554.	2.1	2
240	Large-scale integration of carbon nanotubes into silicon-based microelectronics. , 2003, , .		2
241	Prussian blue-functionalised graphene in the amperometric detection of peroxide and hydrazine. Technology, 2013, 01, 58-62.	1.4	2
242	Challenges in suspending CVD graphene: More than capillary effects. , 2014, , .		2
243	Fabrication of self-organized precisely tunable plasmonic SERS substrates via glancing angle deposition. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700088.	0.8	2
244	Nitrogen as a Suitable Replacement for Argon within Methaneâ€Based Hotâ€Wall Graphene Chemical Vapor Deposition. Physica Status Solidi (B): Basic Research, 2019, 256, 1900240.	0.7	2
245	Covalent Bisfunctionalization of Twoâ€Dimensional Molybdenum Disulfide. Angewandte Chemie, 2021, 133, 13596-13604.	1.6	2
246	Freestanding nanostructures for TEM-combined investigations of nanotubes. AIP Conference Proceedings, 2004, , .	0.3	1
247	Carbon Nanotubes: Can they become a microelectronics technology?. AIP Conference Proceedings, 2004, , .	0.3	1
248	Microtransfer Printing: Field Emission Characteristics of Contact Printed Graphene Fins (Small) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222	5.2	1
249	Field emission applications of graphene. , 2014, , .		1
250	Investigations of vapor phase deposited transition metal dichalcogenide films for future electronic applications. , 2015, , .		1
251	Optimisation of copper catalyst by the addition of chromium for the chemical vapour deposition growth of monolayer graphene. Carbon, 2015, 95, 789-793.	5.4	1
252	Slippery polymer monoliths: Surface functionalization with ordered MoS2 microparticle arrays. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 617, 126363.	2.3	1

#	Article	IF	Citations
253	Waveguide-Integrated Photodetectors based on 2D Platinum Diselenide. , 2021, , .		1
254	Patterning Functionalized Surfaces of 2D Materials by Nanoshaving. Nanomanufacturing and Metrology, 2022, 5, 23-31.	1.5	1
255	Self-Aligned Contacting of Carbon Nanotubes. AIP Conference Proceedings, 2003, , .	0.3	0
256	Catalytic CVD of SWCNTs at Low Temperatures and SWCNT Devices. AIP Conference Proceedings, 2004, , .	0.3	0
257	Contact Resistance between Individual Single Walled Carbon Nanotubes and Metal Electrodes. AIP Conference Proceedings, 2004, , .	0.3	0
258	Novel freestanding nanotube devices for combining TEM and electron diffraction with Raman and Transport. AIP Conference Proceedings, 2005, , .	0.3	0
259	Nanocarbon structures for electronic applications — A critical review. , 2011, , .		0
260	The electrical characteristics of high density arrays of silicon nanowire field-effect transistors: Dependence on wire spacing. , 2013, , .		0
261	Report on the Special Miniworkshop â€œnano&Managementâ€• Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1877-1881.	0.8	0
262	Low temperature characterization of CVD graphene devices fabricated with a scalable process route. , 2014, , .		0
263	Low wavenumber Raman spectroscopy of highly crystalline MoSe2 grown by chemical vapor deposition (Phys. Status Solidi B 11/2015). Physica Status Solidi (B): Basic Research, 2015, 252, .	0.7	0
264	Ex-situ plasma doping of MoS<inf>2</inf> thin films synthesised by thermally assisted conversion process: Simulations and experiment. , 2017, , .		0
265	Nonradiative Energy Transfer and Photocurrent Enhancements in Hybrid Quantum Dot-MoS<inf>2</inf> Devices. , 2018, , .		0
266	Correlation of Material Structure and Electronic Properties in 2D Platinum-Diselenide-based Devices. , 2020, , .		0
267	Titelbild: Siteâ€Selective Oxidation of Monolayered Liquidâ€Exfoliated WS₂ by Shielding the Basal Plane through Adsorption of a Facial Amphiphile (Angew. Chem. 33/2020). Angewandte Chemie, 2020, 132, 13769-13769.	1.6	0
268	Helium ion microscope generated nitrogen-vacancy centres in type Ib diamond. , 2014, , .		0
269	Manipulation of Transition Metal Dichalcogenides: Nanomachining 2D PtSe2 using AFM. , 0, , .		0
270	Manipulation of Transition Metal Dichalcogenides: Nanomachining 2D PtSe2 using AFM. , 0, , .		0

#	Article	IF	Citations
271	Wafer-scale integration of layered 2D materials by adhesive wafer bonding. , 2022, , .		0