Robert Vajtai

List of Publications by Year
in descending order

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430	44,156	1893	2178
papers	citations	102 h-index	202 g-index

436	436	436	47081
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exfoliated Graphitic Carbon Nitride Nanosheets as Efficient Catalysts for Hydrogen Evolution Under Visible Light. Advanced Materials, 2013, 25, 2452-2456.	21.0	2,227
2	Vertical and in-plane heterostructures from WS2/MoS2 monolayers. Nature Materials, 2014, 13, 1135-1142.	27.5	1,918
3	Direct laser writing of micro-supercapacitors on hydrated graphite oxide films. Nature Nanotechnology, 2011, 6, 496-500.	31.5	1,322
4	Ultrathin Planar Graphene Supercapacitors. Nano Letters, 2011, 11, 1423-1427.	9.1	1,145
5	Reliability and current carrying capacity of carbon nanotubes. Applied Physics Letters, 2001, 79, 1172-1174.	3.3	1,133
6	Flexible energy storage devices based on nanocomposite paper. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13574-13577.	7.1	1,032
7	Defects Engineered Monolayer MoS₂ for Improved Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 1097-1103.	9.1	1,015
8	Structured Reduced Graphene Oxide/Polymer Composites for Ultraâ€Efficient Electromagnetic Interference Shielding. Advanced Functional Materials, 2015, 25, 559-566.	14.9	1,007
9	Hydrothermal Synthesis and Pseudocapacitance Properties of MnO2Nanostructures. Journal of Physical Chemistry B, 2005, 109, 20207-20214.	2.6	903
10	Direct Synthesis of Long Single-Walled Carbon Nanotube Strands. Science, 2002, 296, 884-886.	12.6	818
11	In-plane heterostructures of graphene and hexagonal boron nitride with controlled domain sizes. Nature Nanotechnology, 2013, 8, 119-124.	31.5	796
12	Chemical Vapor Deposition Growth of Crystalline Monolayer MoSe₂. ACS Nano, 2014, 8, 5125-5131.	14.6	694
13	High Efficiency Photocatalytic Water Splitting Using 2D Î±â€Fe₂O₃/gâ€C₃N₄ Zâ€Scheme Catalysts. Advanced Energy Materials, 2017, 7, 1700025.	19.5	664
14	Carbon nanotube filters. Nature Materials, 2004, 3, 610-614.	27.5	584
15	Ultrathin high-temperature oxidation-resistant coatings of hexagonal boron nitride. Nature Communications, 2013, 4, 2541.	12.8	536
16	Evolution of the Electronic Band Structure and Efficient Photo-Detection in Atomic Layers of InSe. ACS Nano, 2014, 8, 1263-1272.	14.6	534
17	A metal-free electrocatalyst for carbon dioxide reduction to multi-carbon hydrocarbons and oxygenates. Nature Communications, 2016, 7, 13869.	12.8	505
18	Inkjet Printing of Electrically Conductive Patterns of Carbon Nanotubes. Small, 2006, 2, 1021-1025.	10.0	479

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19	Two-Step Growth of Two-Dimensional WSe₂/MoSe₂ Heterostructures. Nano Letters, 2015, 15, 6135-6141.	9.1	479
20	Organized assembly of carbon nanotubes. Nature, 2002, 416, 495-496.	27.8	477
21	Band Gap Engineering and Layer-by-Layer Mapping of Selenium-Doped Molybdenum Disulfide. Nano Letters, 2014, 14, 442-449.	9.1	463
22	Direct Laserâ€Patterned Microâ€Supercapacitors from Paintable MoS₂ Films. Small, 2013, 9, 2905-2910.	10.0	455
23	Strain and structure heterogeneity in MoS2 atomic layers grown by chemical vapour deposition. Nature Communications, 2014, 5, 5246.	12.8	453
24	Liquid Phase Exfoliation of Two-Dimensional Materials by Directly Probing and Matching Surface Tension Components. Nano Letters, 2015, 15, 5449-5454.	9.1	436
25	Incorporation of Nitrogen Defects for Efficient Reduction of CO₂ via Two-Electron Pathway on Three-Dimensional Graphene Foam. Nano Letters, 2016, 16, 466-470.	9.1	435
26	Direct growth of aligned carbon nanotubes on bulk metals. Nature Nanotechnology, 2006, 1, 112-116.	31.5	416
27	Synthesis and Photoresponse of Large GaSe Atomic Layers. Nano Letters, 2013, 13, 2777-2781.	9.1	381
28	Oxygenated monolayer carbon nitride for excellent photocatalytic hydrogen evolution and external quantum efficiency. Nano Energy, 2016, 27, 138-146.	16.0	379
29	Ptâ€Decorated 3D Architectures Built from Graphene and Graphitic Carbon Nitride Nanosheets as Efficient Methanol Oxidation Catalysts. Advanced Materials, 2014, 26, 5160-5165.	21.0	354
30	Full-color fluorescent carbon quantum dots. Science Advances, 2020, 6, .	10.3	344
31	Building 3D Structures of Vanadium Pentoxide Nanosheets and Application as Electrodes in Supercapacitors. Nano Letters, 2013, 13, 5408-5413.	9.1	343
32	Self-optimizing, highly surface-active layeredÂmetal dichalcogenide catalysts for hydrogen evolution. Nature Energy, 2017, 2, .	39.5	336
33	Covalently bonded three-dimensional carbon nanotube solids via boron induced nanojunctions. Scientific Reports, 2012, 2, 363.	3.3	329
34	Flexible Piezoelectric ZnOâ€“Paper Nanocomposite Strain Sensor. Small, 2010, 6, 1641-1646.	10.0	318
35	Aligned Carbon Nanotubeâ^Polymer Hybrid Architectures for Diverse Flexible Electronic Applications. Nano Letters, 2006, 6, 413-418.	9.1	306
36	Iodine doped carbon nanotube cables exceeding specific electrical conductivity of metals. Scientific Reports, 2011, 1, 83.	3.3	305

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37	Exfoliation of a non-van der Waals material from iron ore hematite. Nature Nanotechnology, 2018, 13, 602-609.	31.5	295
38	Wafer-scale monodomain films of spontaneously aligned single-walled carbon nanotubes. Nature Nanotechnology, 2016, 11, 633-638.	31.5	292
39	From The Cover: Controlled fabrication of hierarchically branched nanopores, nanotubes, and nanowires. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7074-7078.	7.1	286
40	Bottom-up Approach toward Single-Crystalline VO₂-Graphene Ribbons as Cathodes for Ultrafast Lithium Storage. Nano Letters, 2013, 13, 1596-1601.	9.1	263
41	Grapheneâ€Networkâ€Backboned Architectures for Highâ€Performance Lithium Storage. Advanced Materials, 2013, 25, 3979-3984.	21.0	253
42	An Atomically Layered InSe Avalanche Photodetector. Nano Letters, 2015, 15, 3048-3055.	9.1	253
43	Nitrogen-Doped Graphene with Pyridinic Dominance as a Highly Active and Stable Electrocatalyst for Oxygen Reduction. ACS Applied Materials & Interfaces, 2015, 7, 14763-14769.	8.0	248
44	A Bottomâ€Up Approach to Build 3D Architectures from Nanosheets for Superior Lithium Storage. Advanced Functional Materials, 2014, 24, 125-130.	14.9	247
45	Structure, Properties and Applications of Twoâ€Dimensional Hexagonal Boron Nitride. Advanced Materials, 2021, 33, e2101589.	21.0	239
46	Excitation and Active Control of Propagating Surface Plasmon Polaritons in Graphene. Nano Letters, 2013, 13, 3698-3702.	9.1	238
47	Marine Corrosion Protective Coatings of Hexagonal Boron Nitride Thin Films on Stainless Steel. ACS Applied Materials & Interfaces, 2013, 5, 4129-4135.	8.0	234
48	Irradiation-Induced Magnetism in Carbon Nanostructures. Physical Review Letters, 2005, 95, 097201.	7.8	233
49	Covalently Interconnected Three-Dimensional Graphene Oxide Solids. ACS Nano, 2013, 7, 7034-7040.	14.6	233
50	2D heterostructure comprised of metallic 1T-MoS2/Monolayer O-g-C3N4 towards efficient photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2018, 220, 379-385.	20.2	231
51	Zirconia based dental ceramics: structure, mechanical properties, biocompatibility and applications. Dalton Transactions, 2016, 45, 19194-19215.	3.3	228
52	Chip cooling with integrated carbon nanotube microfin architectures. Applied Physics Letters, 2007, 90, 123105.	3.3	222
53	Superior Potassium Ion Storage via Vertical MoS₂ â€œNanoâ€Roseâ€•with Expanded Interlayers on Graphene. Small, 2017, 13, 1701471.	10.0	221
54	Binary and Ternary Atomic Layers Built from Carbon, Boron, and Nitrogen. Advanced Materials, 2012, 24, 4878-4895.	21.0	219

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55	Boron- and Nitrogen-Substituted Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction Reaction. Chemistry of Materials, 2015, 27, 1181-1186.	6.7	219
56	Highâ€Lithiumâ€Affinity Chemically Exfoliated 2D Covalent Organic Frameworks. Advanced Materials, 2019, 31, e1901640.	21.0	217
57	High-Contrast Terahertz Wave Modulation by Gated Graphene Enhanced by Extraordinary Transmission through Ring Apertures. Nano Letters, 2014, 14, 1242-1248.	9.1	214
58	A Scalable Approach to Dendriteâ€Free Lithium Anodes via Spontaneous Reduction of Sprayâ€Coated Graphene Oxide Layers. Advanced Materials, 2018, 30, e1801213.	21.0	204
59	Chemical Vapor Deposition of Monolayer Rhenium Disulfide (ReS₂). Advanced Materials, 2015, 27, 4640-4648.	21.0	203
60	Direct chemical conversion of graphene to boron- and nitrogen- and carbon-containing atomic layers. Nature Communications, 2014, 5, 3193.	12.8	198
61	Surface functionalization of two-dimensional metal chalcogenides by Lewis acidâ€“base chemistry. Nature Nanotechnology, 2016, 11, 465-471.	31.5	197
62	Quaternary 2D Transition Metal Dichalcogenides (TMDs) with Tunable Bandgap. Advanced Materials, 2017, 29, 1702457.	21.0	186
63	Mechanism of Selective Growth of Carbon Nanotubes on SiO2/Si Patterns. Nano Letters, 2003, 3, 561-564.	9.1	173
64	First-Principles Study of Defect-Induced Magnetism in Carbon. Physical Review Letters, 2007, 99, 107201.	7.8	170
65	Synthesis of S-doped graphene by liquid precursor. Nanotechnology, 2012, 23, 275605.	2.6	169
66	Carbon Nanotubeâ€“Nanocup Hybrid Structures for High Power Supercapacitor Applications. Nano Letters, 2012, 12, 5616-5621.	9.1	164
67	Synthesis of N, F and S co-doped graphene quantum dots. Nanoscale, 2015, 7, 11515-11519.	5.6	164
68	Formation of CuPd and CuPt Bimetallic Nanotubes by Galvanic Replacement Reaction. Journal of Physical Chemistry C, 2011, 115, 9403-9409.	3.1	163
69	Optoelectronic Memory Using Two-Dimensional Materials. Nano Letters, 2015, 15, 259-265.	9.1	163
70	Nanostructured VO₂ Photocatalysts for Hydrogen Production. ACS Nano, 2008, 2, 1492-1496.	14.6	162
71	Atomically thin gallium layers from solid-melt exfoliation. Science Advances, 2018, 4, e1701373.	10.3	157
72	Functionalized Multilayered Graphene Platform for Urea Sensor. ACS Nano, 2012, 6, 168-175.	14.6	154

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73	High Strain Tolerant EMI Shielding Using Carbon Nanotube Network Stabilized Rubber Composite. Advanced Materials Technologies, 2017, 2, 1700078.	5.8	153
74	Synthesis of Millimeterâ€Scale Transition Metal Dichalcogenides Single Crystals. Advanced Functional Materials, 2016, 26, 2009-2015.	14.9	152
75	Extracting information from noise spectra of chemical sensors: single sensor electronic noses and tongues. Sensors and Actuators B: Chemical, 2000, 71, 55-59.	7.8	149
76	Low-Temperature Large-Scale Synthesis and Electrical Testing of Ultralong Copper Nanowires. Langmuir, 2010, 26, 16496-16502.	3.5	149
77	Probing the engineered sandwich network of vertically aligned carbon nanotubeâ€“reduced graphene oxide composites for high performance electromagnetic interference shielding applications. Carbon, 2015, 85, 79-88.	10.3	141
78	A simple method to synthesize continuous large area nitrogen-doped graphene. Carbon, 2012, 50, 4476-4482.	10.3	139
79	Nitrogen-Doped Anatase Nanofibers Decorated with Noble Metal Nanoparticles for Photocatalytic Production of Hydrogen. ACS Nano, 2011, 5, 5025-5030.	14.6	137
80	Efficient Modulation of 1.55 Î¼m Radiation with Gated Graphene on a Silicon Microring Resonator. Nano Letters, 2014, 14, 6811-6815.	9.1	137
81	Ultrathick Freestanding Aligned Carbon Nanotube Films. Advanced Materials, 2007, 19, 3300-3303.	21.0	136
82	Bottom-Up Growth of Carbon Nanotube Multilayers:Â Unprecedented Growth. Nano Letters, 2005, 5, 1997-2000.	9.1	130
83	Hexagonal Boron Nitride and Graphite Oxide Reinforced Multifunctional Porous Cement Composites. Advanced Functional Materials, 2013, 23, 5624-5630.	14.9	129
84	Gold Nanoparticles and gâ€C₃N₄â€Intercalated Graphene Oxide Membrane for Recyclable Surface Enhanced Raman Scattering. Advanced Functional Materials, 2017, 27, 1701714.	14.9	129
85	Surface Tension Components Based Selection of Cosolvents for Efficient Liquid Phase Exfoliation of 2D Materials. Small, 2016, 12, 2741-2749.	10.0	128
86	A Review of Cooling in Microchannels. Heat Transfer Engineering, 2011, 32, 527-541.	1.9	125
87	CoMoO₄ Nanoparticles Anchored on Reduced Graphene Oxide Nanocomposites as Anodes for Long-Life Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2014, 6, 20414-20422.	8.0	125
88	Functionalized Low Defect Graphene Nanoribbons and Polyurethane Composite Film for Improved Gas Barrier and Mechanical Performances. ACS Nano, 2013, 7, 10380-10386.	14.6	124
89	Synthesis of large-scale atomic-layer SnS2 through chemical vapor deposition. Nano Research, 2017, 10, 2386-2394.	10.4	124
90	Imaging the motion of electrons across semiconductor heterojunctions. Nature Nanotechnology, 2017, 12, 36-40.	31.5	124

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91	Improving the Catalytic Activity of Carbonâ€Supported Single Atom Catalysts by Polynary Metal or Heteroatom Doping. Small, 2020, 16, e1906782.	10.0	124
92	Tellurium-Assisted Low-Temperature Synthesis of MoS₂ and WS₂ Monolayers. ACS Nano, 2015, 9, 11658-11666.	14.6	123
93	Assembly of Highly Organized Carbon Nanotube Architectures by Chemical Vapor Deposition. Chemistry of Materials, 2003, 15, 1598-1606.	6.7	122
94	Strain-Induced Electronic Structure Changes in Stacked van der Waals Heterostructures. Nano Letters, 2016, 16, 3314-3320.	9.1	122
95	Boron Nitrideâ€“Graphene Nanocapacitor and the Origins of Anomalous Size-Dependent Increase of Capacitance. Nano Letters, 2014, 14, 1739-1744.	9.1	120
96	Carbon Nitrogen Nanotubes as Efficient Bifunctional Electrocatalysts for Oxygen Reduction and Evolution Reactions. ACS Applied Materials & Interfaces, 2015, 7, 11991-12000.	8.0	120
97	Magnetic quantum ratchet effect in graphene. Nature Nanotechnology, 2013, 8, 104-107.	31.5	116
98	Density control of single-walled carbon nanotubes using patterned iron nanoparticle catalysts derived from phase-separated thin films of a polyferrocene block copolymerElectronic supplementary information (ESI) available: synthesis of PS-b-PFEMS, SWNT growth and characterization. See http://www.rsc.org/suppdata/jm/b4/b403831b/. Journal of Materials Chemistry, 2004, 14, 1791.	6.7	113
99	In Situ Synthesis of Thermochemically Reduced Graphene Oxide Conducting Nanocomposites. Nano Letters, 2012, 12, 1789-1793.	9.1	109
100	Metal Nanoparticles as Green Catalysts. Materials, 2019, 12, 3602.	2.9	109
101	3D Nanostructured Molybdenum Diselenide/Graphene Foam as Anodes for Long-Cycle Life Lithium-ion Batteries. Electrochimica Acta, 2015, 176, 103-111.	5.2	107
102	Tuning the Electrochemical Reactivity of Boronâ€•and Nitrogenâ€Substituted Graphene. Advanced Materials, 2016, 28, 6239-6246.	21.0	107
103	Utilizing 3D SERS Active Volumes in Aligned Carbon Nanotube Scaffold Substrates. Advanced Materials, 2012, 24, 5261-5266.	21.0	103
104	MOF-74 derived porous hybrid metal oxide hollow nanowires for high-performance electrochemical energy storage. Journal of Materials Chemistry A, 2018, 6, 8396-8404.	10.3	101
105	Multifunctional Bioâ€Nanocomposite Coatings for Perishable Fruits. Advanced Materials, 2020, 32, e1908291.	21.0	97
106	Atomic Ru Immobilized on Porous h-BN through Simple Vacuum Filtration for Highly Active and Selective CO₂ Methanation. ACS Catalysis, 2019, 9, 10077-10086.	11.2	93
107	A solvent-assisted ligand exchange approach enables metal-organic frameworks with diverse and complex architectures. Nature Communications, 2020, 11, 927.	12.8	93
108	Conduction Mechanisms in CVD-Grown Monolayer MoS₂ Transistors: From Variable-Range Hopping to Velocity Saturation. Nano Letters, 2015, 15, 5052-5058.	9.1	92

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109	High efficiency electrochemical reduction of CO₂ beyond the two-electron transfer pathway on grain boundary rich ultra-small SnO₂ nanoparticles. Journal of Materials Chemistry A, 2018, 6, 10313-10319.	10.3	92
110	Sustainable Synthesis of Bright Green Fluorescent Nitrogenâ€Doped Carbon Quantum Dots from Alkali Lignin. ChemSusChem, 2019, 12, 4202-4210.	6.8	92
111	Low-density three-dimensional foam using self-reinforced hybrid two-dimensional atomic layers. Nature Communications, 2014, 5, 4541.	12.8	91
112	Cryo-mediated exfoliation and fracturing of layered materials into 2D quantum dots. Science Advances, 2017, 3, e1701500.	10.3	91
113	Ni filled flexible multi-walled carbon nanotubeâ€“polystyrene composite films as efficient microwave absorbers. Applied Physics Letters, 2011, 99, .	3.3	90
114	Field Emission with Ultralow Turn On Voltage from Metal Decorated Carbon Nanotubes. ACS Nano, 2014, 8, 7763-7770.	14.6	90
115	Reversible Formation of gâ€C₃N₄ 3D Hydrogels through Ionic Liquid Activation: Gelation Behavior and Roomâ€Temperature Gasâ€Sensing Properties. Advanced Functional Materials, 2017, 27, 1700653.	14.9	90
116	Nitrogen-rich carbon nano-onions for oxygen reduction reaction. Carbon, 2018, 130, 645-651.	10.3	90
117	Functionalized boron nitride porous solids. RSC Advances, 2015, 5, 93964-93968.	3.6	89
118	Synthesis of reduced graphene oxideâ€“Fe3O4 multifunctional freestanding membranes and their temperature dependent electronic transport properties. Carbon, 2012, 50, 1338-1345.	10.3	87
119	A Non-van der Waals Two-Dimensional Material from Natural Titanium Mineral Ore Ilmenite. Chemistry of Materials, 2018, 30, 5923-5931.	6.7	82
120	Large Area-Aligned Arrays from Direct Deposition of Single-Wall Carbon Nanotube Inks. Journal of the American Chemical Society, 2007, 129, 10088-10089.	13.7	81
121	A fast and zero-biased photodetector based on GaTeâ€“InSe vertical 2D pâ€“n heterojunction. 2D Materials, 2018, 5, 025008.	4.4	81
122	Synthesis of Catalytic Porous Metallic Nanorods by Galvanic Exchange Reaction. Journal of Physical Chemistry C, 2010, 114, 389-393.	3.1	80
123	Electrical Transport and Field-Effect Transistors Using Inkjet-Printed SWCNT Films Having Different Functional Side Groups. ACS Nano, 2010, 4, 3318-3324.	14.6	79
124	Laser-assisted metal deposition from liquid-phase precursors on polymers. Applied Surface Science, 2001, 172, 178-189.	6.1	78
125	Multiscale Geometric Design Principles Applied to 3D Printed Schwarzites. Advanced Materials, 2018, 30, 1704820.	21.0	76
126	Fabrication of manganese oxide/three-dimensional reduced graphene oxide composites as the supercapacitors by a reverse microemulsion method. Carbon, 2015, 85, 249-260.	10.3	74

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127	Carbonâ€Nanotubeâ€Based Electrical Brush Contacts. Advanced Materials, 2009, 21, 2054-2058.	21.0	73
128	Flexible ZnOâ€“Cellulose Nanocomposite for Multisource Energy Conversion. Small, 2011, 7, 2173-2178.	10.0	73
129	High-Density, Large-Area Single-Walled Carbon Nanotube Networks on Nanoscale Patterned Substrates. Journal of Physical Chemistry B, 2003, 107, 6859-6864.	2.6	72
130	Three-Dimensional Carbon Nanotube Scaffolds as Particulate Filters and Catalyst Support Membranes. ACS Nano, 2010, 4, 2003-2008.	14.6	72
131	Low Contact Barrier in 2H/1Tâ€² MoTe₂ In-Plane Heterostructure Synthesized by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2019, 11, 12777-12785.	8.0	70
132	Vertically Aligned Large-Diameter Double-Walled Carbon Nanotube Arrays Having Ultralow Density. Journal of Physical Chemistry C, 2007, 111, 9077-9080.	3.1	69
133	Experimental Determination of the Ionization Energies of MoSe₂, WS₂, and MoS₂ on SiO₂ Using Photoemission Electron Microscopy. ACS Nano, 2017, 11, 8223-8230.	14.6	69
134	Doping Nanoscale Graphene Domains Improves Magnetism in Hexagonal Boron Nitride. Advanced Materials, 2019, 31, e1805778.	21.0	69
135	A General Synthetic Approach to Interconnected Nanowire/Nanotube and Nanotube/Nanowire/Nanotube Heterojunctions with Branched Topology. Angewandte Chemie - International Edition, 2009, 48, 7166-7170.	13.8	66
136	Tunable Electronics in Large-Area Atomic Layers of Boronâ€“Nitrogenâ€“Carbon. Nano Letters, 2013, 13, 3476-3481.	9.1	65
137	Facile Synthesis of 3D Anode Assembly with Si Nanoparticles Sealed in Highly Pure Few Layer Graphene Deposited on Porous Current Collector for Long Life Liâ€Ion Battery. Advanced Materials Interfaces, 2017, 4, 1601043.	3.7	65
138	Water tribology on graphene. Nature Communications, 2012, 3, 1242.	12.8	64
139	Fiber Reinforced Layered Dielectric Nanocomposite. Advanced Functional Materials, 2019, 29, 1900056.	14.9	64
140	Microcomputed tomographyâ€“based characterization of advanced materials: a review. Materials Today Advances, 2020, 8, 100084.	5.2	64
141	Structural Characterizations of Long Single-Walled Carbon Nanotube Strands. Nano Letters, 2002, 2, 1105-1107.	9.1	63
142	Unzipping Carbon Nanotubes at High Impact. Nano Letters, 2014, 14, 4131-4137.	9.1	63
143	Layer Engineering of 2D Semiconductor Junctions. Advanced Materials, 2016, 28, 5126-5132.	21.0	63
144	Adsorption energy of oxygen molecules on graphene and two-dimensional tungsten disulfide. Scientific Reports, 2017, 7, 1774.	3.3	62

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145	Anisotropic thermal diffusivity of aligned multiwall carbon nanotube arrays. Journal of Applied Physics, 2005, 98, 054309.	2.5	61
146	Magnetic-Field Induced Efficient Alignment of Carbon Nanotubes in Aqueous Solutions. Chemistry of Materials, 2007, 19, 787-791.	6.7	61
147	Metal Immiscibility Route to Synthesis of Ultrathin Carbides, Borides, and Nitrides. Advanced Materials, 2017, 29, 1700364.	21.0	61
148	Laser-induced oxidation of metals: state of the art. Thin Solid Films, 1997, 298, 160-164.	1.8	60
149	Nanosized Pt anchored onto 3D nitrogen-doped graphene nanoribbons towards efficient methanol electrooxidation. Journal of Materials Chemistry A, 2015, 3, 19696-19701.	10.3	60
150	Amineâ€Functionalized Carbon Nanodot Electrocatalysts Converting Carbon Dioxide to Methane. Advanced Materials, 2022, 34, e2105690.	21.0	59
151	Design and Reinforcement: Vertically Aligned Carbon Nanotube-Based Sandwich Composites. ACS Nano, 2010, 4, 6798-6804.	14.6	58
152	The strain sensing and thermalâ€“mechanical behavior of flexible multi-walled carbon nanotube/polystyrene composite films. Carbon, 2011, 49, 3928-3936.	10.3	57
153	Enhanced Field Emission Properties from CNT Arrays Synthesized on Inconel Superalloy. ACS Applied Materials & Interfaces, 2014, 6, 1986-1991.	8.0	57
154	Lightweight Hexagonal Boron Nitride Foam for CO₂ Absorption. ACS Nano, 2017, 11, 8944-8952.	14.6	56
155	Spiral Growth of SnSe₂ Crystals by Chemical Vapor Deposition. Advanced Materials Interfaces, 2016, 3, 1600383.	3.7	55
156	HIGH SIGNAL-TO-NOISE RATIO GAIN BY STOCHASTIC RESONANCE IN A DOUBLE WELL. Fluctuation and Noise Letters, 2001, 01, L181-L188.	1.5	53
157	Quantitative analysis of hysteresis in carbon nanotube field-effect devices. Applied Physics Letters, 2006, 89, 132118.	3.3	53
158	Multifunctional Macroarchitectures of Double-Walled Carbon Nanotube Fibers. Advanced Materials, 2007, 19, 1719-1723.	21.0	52
159	High apparent strengthening efficiency for reduced graphene oxide in copper matrix composites produced by molecule-lever mixing and high-shear mixing. RSC Advances, 2015, 5, 51193-51200.	3.6	52
160	Giant Terahertz-Wave Absorption by Monolayer Graphene in a Total Internal Reflection Geometry. ACS Photonics, 2017, 4, 121-126.	6.6	52
161	3D Reduced Graphene Oxide Coated V₂ O₅ Nanoribbon Scaffolds for High-Capacity Supercapacitor Electrodes. Particle and Particle Systems Characterization, 2015, 32, 817-821.	2.3	49
162	Density Variant Carbon Nanotube Interconnected Solids. Advanced Materials, 2015, 27, 1842-1850.	21.0	49

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163	3D Macroporous Solids from Chemically Cross-linked Carbon Nanotubes. Small, 2015, 11, 688-693.	10.0	49
164	Building carbon nanotubes and their smart architectures. Smart Materials and Structures, 2002, 11, 691-698.	3.5	47
165	Time and temperature dependence of multi-walled carbon nanotube growth on Inconel 600. Nanotechnology, 2008, 19, 045610.	2.6	47
166	Thermally Assisted Nonvolatile Memory in Monolayer MoS₂ Transistors. Nano Letters, 2016, 16, 6445-6451.	9.1	47
167	Recyclable three-dimensional Ag nanorod arrays decorated with O-g-C3N4 for highly sensitive SERS sensing of organic pollutants. Journal of Hazardous Materials, 2019, 379, 120823.	12.4	47
168	Rational Design of Oxygen-Enriched Carbon Dots with Efficient Room-Temperature Phosphorescent Properties and High-Tech Security Protection Application. ACS Sustainable Chemistry and Engineering, 2019, 7, 19918-19924.	6.7	47
169	White luminescent single-crystalline chlorinated graphene quantum dots. Nanoscale Horizons, 2020, 5, 928-933.	8.0	47
170	MoS₂â€“Carbon Nanotube Porous 3â€‰D Network for Enhanced Oxygen Reduction Reaction. ChemSusChem, 2018, 11, 2960-2966.	6.8	46
171	Anomalous high capacitance in a coaxial single nanowire capacitor. Nature Communications, 2012, 3, 879.	12.8	45
172	Signal-to-noise ratio gain by stochastic resonance in a bistable system. Chaos, Solitons and Fractals, 2000, 11, 1929-1932.	5.1	44
173	Ternary CuIn₇Se₁₁: Towards Ultraâ€Thin Layered Photodetectors and Photovoltaic Devices. Advanced Materials, 2014, 26, 7666-7672.	21.0	43
174	Synthesis and porous h-BN 3D architectures for effective humidity and gas sensors. RSC Advances, 2016, 6, 87888-87896.	3.6	43
175	Synthesis of ultralow density 3D grapheneâ€“CNT foams using a two-step method. Nanoscale, 2016, 8, 15857-15863.	5.6	43
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