

# Zhongfan Liu

## List of Publications by Citations

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691  
papers

45,387  
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758  
ext. papers

52,216  
ext. citations

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7.77  
L-index

#	Paper	IF	Citations
691	Effect of Chemical Oxidation on the Structure of Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 3712-3718	3.4	944
690	Applications of 2D MXenes in energy conversion and storage systems. <i>Chemical Society Reviews</i> , <b>2019</b> , 48, 72-133	58.5	878
689	Can graphene be used as a substrate for Raman enhancement?. <i>Nano Letters</i> , <b>2010</b> , 10, 553-61	11.5	771
688	Synthesis of nitrogen-doped graphene using embedded carbon and nitrogen sources. <i>Advanced Materials</i> , <b>2011</b> , 23, 1020-4	24	653
687	Toward clean and crackless transfer of graphene. <i>ACS Nano</i> , <b>2011</b> , 5, 9144-53	16.7	588
686	Controlled growth of high-quality monolayer WS <sub>2</sub> layers on sapphire and imaging its grain boundary. <i>ACS Nano</i> , <b>2013</b> , 7, 8963-71	16.7	586
685	Ultrathin two-dimensional atomic crystals as stable interfacial layer for improvement of lithium metal anode. <i>Nano Letters</i> , <b>2014</b> , 14, 6016-22	11.5	545
684	Photoelectrochemical information storage using an azobenzene derivative. <i>Nature</i> , <b>1990</b> , 347, 658-660	50.4	506
683	Hierarchical Graphene Foam for Efficient Omnidirectional Solar-Thermal Energy Conversion. <i>Advanced Materials</i> , <b>2017</b> , 29, 1702590	24	480
682	Epitaxial monolayer MoS <sub>2</sub> on mica with novel photoluminescence. <i>Nano Letters</i> , <b>2013</b> , 13, 3870-7	11.5	456
681	Surface enhanced Raman spectroscopy on a flat graphene surface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 9281-6	11.5	442
680	Transferring and Identification of Single- and Few-Layer Graphene on Arbitrary Substrates. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 17741-17744	3.8	433
679	Plasmonic hot electron induced structural phase transition in a MoS <sub>2</sub> monolayer. <i>Advanced Materials</i> , <b>2014</b> , 26, 6467-71	24	429
678	Graphene as a substrate to suppress fluorescence in resonance Raman spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 9890-1	16.4	395
677	Few-layer nanoplates of Bi <sub>2</sub> Se <sub>3</sub> and Bi <sub>2</sub> Te <sub>3</sub> with highly tunable chemical potential. <i>Nano Letters</i> , <b>2010</b> , 10, 2245-50	11.5	370
676	The edge- and basal-plane-specific electrochemistry of a single-layer graphene sheet. <i>Scientific Reports</i> , <b>2013</b> , 3, 2248	4.9	367
675	Robust Superhydrophobic Foam: A Graphdiyne-Based Hierarchical Architecture for Oil/Water Separation. <i>Advanced Materials</i> , <b>2016</b> , 28, 168-73	24	359

674	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. <i>Nano Letters</i> , <b>2015</b> , 15, 4206-13	11.5	357
673	Controllable synthesis of conducting polypyrrole nanostructures. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 1158-65	3.4	353
672	Organizing Single-Walled Carbon Nanotubes on Gold Using a Wet Chemical Self-Assembling Technique. <i>Langmuir</i> , <b>2000</b> , 16, 3569-3573	4	352
671	Controllable growth and transfer of monolayer MoS <sub>2</sub> on Au foils and its potential application in hydrogen evolution reaction. <i>ACS Nano</i> , <b>2014</b> , 8, 10196-204	16.7	351
670	Synthesis of Graphdiyne Nanowalls Using Acetylenic Coupling Reaction. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 7596-9	16.4	350
669	High electron mobility and quantum oscillations in non-encapsulated ultrathin semiconducting BiOSe. <i>Nature Nanotechnology</i> , <b>2017</b> , 12, 530-534	28.7	332
668	Synchronous immobilization and conversion of polysulfides on a VO <sub>2</sub> /V <sub>2</sub> N binary host targeting high sulfur load LiS batteries. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 2620-2630	35.4	327
667	Ultrafast epitaxial growth of metre-sized single-crystal graphene on industrial Cu foil. <i>Science Bulletin</i> , <b>2017</b> , 62, 1074-1080	10.6	326
666	Formation of bilayer bernal graphene: layer-by-layer epitaxy via chemical vapor deposition. <i>Nano Letters</i> , <b>2011</b> , 11, 1106-10	11.5	320
665	Photochemical chlorination of graphene. <i>ACS Nano</i> , <b>2011</b> , 5, 5957-61	16.7	284
664	Two-Dimensional (CH <sub>3</sub> NH <sub>3</sub> )PbBr <sub>3</sub> Perovskite Crystals for High-Performance Photodetector. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 16612-16615	16.4	273
663	Applications of Phosphorene and Black Phosphorus in Energy Conversion and Storage Devices. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702093	21.8	272
662	Chemical vapour deposition of group-VIB metal dichalcogenide monolayers: engineered substrates from amorphous to single crystalline. <i>Chemical Society Reviews</i> , <b>2015</b> , 44, 2587-602	58.5	271
661	Topological insulator nanostructures for near-infrared transparent flexible electrodes. <i>Nature Chemistry</i> , <b>2012</b> , 4, 281-6	17.6	270
660	Graphdiyne: A Metal-Free Material as Hole Transfer Layer To Fabricate Quantum Dot-Sensitized Photocathodes for Hydrogen Production. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 3954-7	16.4	257
659	Creation of nanostructures with poly(methyl methacrylate)-mediated nanotransfer printing. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 12612-3	16.4	250
658	Measurement of the rate of water translocation through carbon nanotubes. <i>Nano Letters</i> , <b>2011</b> , 11, 2173-7	17.5	247
657	Epitaxy and photoresponse of two-dimensional GaSe crystals on flexible transparent mica sheets. <i>ACS Nano</i> , <b>2014</b> , 8, 1485-90	16.7	245

656	The rare two-dimensional materials with Dirac cones. <i>National Science Review</i> , <b>2015</b> , 2, 22-39	10.8	243
655	Batch production of 6-inch uniform monolayer molybdenum disulfide catalyzed by sodium in glass. <i>Nature Communications</i> , <b>2018</b> , 9, 979	17.4	224
654	Cicada wings: a stamp from nature for nanoimprint lithography. <i>Small</i> , <b>2006</b> , 2, 1440-3	11	220
653	Synthesis challenges for graphene industry. <i>Nature Materials</i> , <b>2019</b> , 18, 520-524	27	217
652	Toward single-layer uniform hexagonal boron nitride-graphene patchworks with zigzag linking edges. <i>Nano Letters</i> , <b>2013</b> , 13, 3439-43	11.5	216
651	Universal segregation growth approach to wafer-size graphene from non-noble metals. <i>Nano Letters</i> , <b>2011</b> , 11, 297-303	11.5	216
650	Roll-to-Roll Green Transfer of CVD Graphene onto Plastic for a Transparent and Flexible Triboelectric Nanogenerator. <i>Advanced Materials</i> , <b>2015</b> , 27, 5210-6	24	215
649	Temperature-mediated growth of single-walled carbon-nanotube intramolecular junctions. <i>Nature Materials</i> , <b>2007</b> , 6, 283-6	27	215
648	Rational design of a binary metal alloy for chemical vapour deposition growth of uniform single-layer graphene. <i>Nature Communications</i> , <b>2011</b> , 2, 522	17.4	201
647	Janus graphene from asymmetric two-dimensional chemistry. <i>Nature Communications</i> , <b>2013</b> , 4, 1443	17.4	196
646	Epitaxial heterostructures of ultrathin topological insulator nanoplate and graphene. <i>Nano Letters</i> , <b>2010</b> , 10, 2870-6	11.5	195
645	A scalable CVD synthesis of high-purity single-walled carbon nanotubes with porous MgO as support material. <i>Journal of Materials Chemistry</i> , <b>2002</b> , 12, 1179-1183		192
644	Vertical Graphene Growth on SiO Microparticles for Stable Lithium Ion Battery Anodes. <i>Nano Letters</i> , <b>2017</b> , 17, 3681-3687	11.5	185
643	Chemistry makes graphene beyond graphene. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 12194-1200	16.4	184
642	Rationalizing Electrocatalysis of LiB Chemistry by Mediator Design: Progress and Prospects. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1901075	21.8	184
641	The origin of wrinkles on transferred graphene. <i>Nano Research</i> , <b>2011</b> , 4, 996-1004	10	183
640	Boron nitride nanopores: highly sensitive DNA single-molecule detectors. <i>Advanced Materials</i> , <b>2013</b> , 25, 4549-54	24	182
639	Scalable Seashell-Based Chemical Vapor Deposition Growth of Three-Dimensional Graphene Foams for Oil-Water Separation. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 6360-3	16.4	177

638	Segregation Growth of Graphene on CuNi Alloy for Precise Layer Control. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 11976-11982	3.8	174
637	Direct growth of large-area graphene and boron nitride heterostructures by a co-segregation method. <i>Nature Communications</i> , <b>2015</b> , 6, 6519	17.4	173
636	Versatile N-Doped MXene Ink for Printed Electrochemical Energy Storage Application. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901839	21.8	172
635	Controlled synthesis of single-crystal SnSe nanoplates. <i>Nano Research</i> , <b>2015</b> , 8, 288-295	10	170
634	"Cloning" of single-walled carbon nanotubes via open-end growth mechanism. <i>Nano Letters</i> , <b>2009</b> , 9, 1673-7	11.5	170
633	Temperature-triggered chemical switching growth of in-plane and vertically stacked graphene-boron nitride heterostructures. <i>Nature Communications</i> , <b>2015</b> , 6, 6835	17.4	169
632	Defect-like structures of graphene on copper foils for strain relief investigated by high-resolution scanning tunneling microscopy. <i>ACS Nano</i> , <b>2011</b> , 5, 4014-22	16.7	165
631	Angle-dependent van Hove singularities in a slightly twisted graphene bilayer. <i>Physical Review Letters</i> , <b>2012</b> , 109, 126801	7.4	164
630	Raman scattering enhancement contributed from individual gold nanoparticles and interparticle coupling. <i>Nanotechnology</i> , <b>2004</b> , 15, 357-364	3.4	161
629	Photocatalytic patterning and modification of graphene. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 2706-13	16.4	160
628	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. <i>Chemical Reviews</i> , <b>2018</b> , 118, 9281-9343	68.1	160
627	Approaching the electromagnetic mechanism of surface-enhanced Raman scattering: from self-assembled arrays to individual gold nanoparticles. <i>Chemical Society Reviews</i> , <b>2011</b> , 40, 1296-304	58.5	159
626	Wearable energy sources based on 2D materials. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 3152-3188	58.5	158
625	Synthesis of boron-doped graphene monolayers using the sole solid feedstock by chemical vapor deposition. <i>Small</i> , <b>2013</b> , 9, 1316-20	11	157
624	Controlled growth of atomically thin In <sub>2</sub> Se <sub>3</sub> flakes by van der Waals epitaxy. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 13274-7	16.4	156
623	Nanopatterned Assembling of Colloidal Gold Nanoparticles on Silicon. <i>Langmuir</i> , <b>2000</b> , 16, 4409-4412	4	156
622	Metallic Vanadium Disulfide Nanosheets as a Platform Material for Multifunctional Electrode Applications. <i>Nano Letters</i> , <b>2017</b> , 17, 4908-4916	11.5	155
621	Synthesis of Hierarchical Graphdiyne-Based Architecture for Efficient Solar Steam Generation. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 5777-5781	9.6	155

620	Low-temperature growth and properties of ZnO nanowires. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 4941-4943	3.4	154
619	Direct Chemical Vapor Deposition-Derived Graphene Glasses Targeting Wide Ranged Applications. <i>Nano Letters</i> , <b>2015</b> , 15, 5846-54	11.5	152
618	Designed CVD growth of graphene via process engineering. <i>Accounts of Chemical Research</i> , <b>2013</b> , 46, 2263-74	24.3	152
617	Controlled synthesis of topological insulator nanoplate arrays on mica. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 6132-5	16.4	152
616	Production of graphene sheets by direct dispersion with aromatic healing agents. <i>Small</i> , <b>2010</b> , 6, 1100-7	11	150
615	Labeling the Defects of Single-Walled Carbon Nanotubes Using Titanium Dioxide Nanoparticles. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 2453-2458	3.4	148
614	In Situ Assembly of 2D Conductive Vanadium Disulfide with Graphene as a High-Sulfur-Loading Host for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800201	21.8	146
613	Carbon-Nanomaterial-Based Flexible Batteries for Wearable Electronics. <i>Advanced Materials</i> , <b>2019</b> , 31, e1800716	24	144
612	Fabrication of Designed Architectures of Au Nanoparticles on Solid Substrate with Printed Self-Assembled Monolayers as Templates. <i>Langmuir</i> , <b>2000</b> , 16, 3846-3851	4	144
611	Two-dimensional metallic tantalum disulfide as a hydrogen evolution catalyst. <i>Nature Communications</i> , <b>2017</b> , 8, 958	17.4	143
610	Temperature-Mediated Selective Growth of MoS <sub>2</sub> /WS <sub>2</sub> and WS <sub>2</sub> /MoS <sub>2</sub> Vertical Stacks on Au Foils for Direct Photocatalytic Applications. <i>Advanced Materials</i> , <b>2016</b> , 28, 10664-10672	24	142
609	Direct Synthesis of Graphdiyne Nanowalls on Arbitrary Substrates and Its Application for Photoelectrochemical Water Splitting Cell. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605308	24	140
608	Dendritic, transferable, strictly monolayer MoS <sub>2</sub> flakes synthesized on SrTiO <sub>3</sub> single crystals for efficient electrocatalytic applications. <i>ACS Nano</i> , <b>2014</b> , 8, 8617-24	16.7	140
607	Inorganic/organic mesostructure directed synthesis of wire/ribbon-like polypyrrole nanostructures. <i>Chemical Communications</i> , <b>2004</b> , 1852-3	5.8	139
606	Strain effects in graphene and graphene nanoribbons: The underlying mechanism. <i>Nano Research</i> , <b>2010</b> , 3, 545-556	10	138
605	Bandgap opening in graphene antidot lattices: the missing half. <i>ACS Nano</i> , <b>2011</b> , 5, 4023-30	16.7	137
604	Ultrafast and highly sensitive infrared photodetectors based on two-dimensional oxyselenide crystals. <i>Nature Communications</i> , <b>2018</b> , 9, 3311	17.4	135
603	Ultrathin graphdiyne film on graphene through solution-phase van der Waals epitaxy. <i>Science Advances</i> , <b>2018</b> , 4, eaat6378	14.3	134

602	Direct growth of semiconducting single-walled carbon nanotube array. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 14642-3	16.4	134
601	Patterning two-dimensional chalcogenide crystals of Bi <sub>2</sub> Se <sub>3</sub> and In <sub>2</sub> Se <sub>3</sub> and efficient photodetectors. <i>Nature Communications</i> , <b>2015</b> , 6, 6972	17.4	133
600	Thionine-mediated chemistry of carbon nanotubes. <i>Carbon</i> , <b>2004</b> , 42, 287-291	10.4	133
599	Chemical vapor deposition growth of large-scale hexagonal boron nitride with controllable orientation. <i>Nano Research</i> , <b>2015</b> , 8, 3164-3176	10	131
598	Conductance switching and mechanisms in single-molecule junctions. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 8666-70	16.4	131
597	Ribbon- and boardlike nanostructures of nickel hydroxide: synthesis, characterization, and electrochemical properties. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 7654-8	3.4	130
596	Strain and curvature induced evolution of electronic band structures in twisted graphene bilayer. <i>Nature Communications</i> , <b>2013</b> , 4, 2159	17.4	127
595	Surfactant-directed polypyrrole/CNT nanocables: synthesis, characterization, and enhanced electrical properties. <i>ChemPhysChem</i> , <b>2004</b> , 5, 998-1002	3.2	127
594	Wrinkle engineering: a new approach to massive graphene nanoribbon arrays. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 17578-81	16.4	126
593	Caging Nb O Nanowires in PECVD-Derived Graphene Capsules toward Bendable Sodium-Ion Hybrid Supercapacitors. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800963	24	126
592	Effect of hydrocarbons precursors on the formation of carbon nanotubes in chemical vapor deposition. <i>Carbon</i> , <b>2004</b> , 42, 829-835	10.4	125
591	Synthesis and electrical properties of carbon nanotube polyaniline composites. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 1796-1798	3.4	125
590	Toward Mass Production of CVD Graphene Films. <i>Advanced Materials</i> , <b>2019</b> , 31, e1800996	24	123
589	Cationic surfactant directed polyaniline/CNT nanocables: synthesis, characterization, and enhanced electrical properties. <i>Carbon</i> , <b>2004</b> , 42, 1455-1461	10.4	122
588	Direct growth of high-quality graphene on high- $\kappa$ dielectric SrTiO <sub>3</sub> substrates. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 6574-7	16.4	119
587	Surface-confined single-layer covalent organic framework on single-layer graphene grown on copper foil. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 9564-8	16.4	118
586	Graphdiyne: A Promising Catalyst Support To Stabilize Cobalt Nanoparticles for Oxygen Evolution. <i>ACS Catalysis</i> , <b>2017</b> , 7, 5209-5213	13.1	116
585	Building high-throughput molecular junctions using indented graphene point contacts. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 12228-32	16.4	115



584	Aligned, ultralong single-walled carbon nanotubes: from synthesis, sorting, to electronic devices. <i>Advanced Materials</i> , <b>2010</b> , 22, 2285-310	24	115
583	A Highly Stretchable Cross-Linked Polyacrylamide Hydrogel as an Effective Binder for Silicon and Sulfur Electrodes toward Durable Lithium-Ion Storage. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705015 <sup>15.6</sup>	15.6	114
582	Evaporation-induced self-assembly of gold nanoparticles into a highly organized two-dimensional array. <i>Physical Chemistry Chemical Physics</i> , <b>2002</b> , 4, 6059-6062	3.6	114
581	Designing 3D Biomorphic Nitrogen-Doped MoSe <sub>2</sub> /Graphene Composites toward High-Performance Potassium-Ion Capacitors. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1903878	15.6	114
580	Wrinkle-Free Single-Crystal Graphene Wafer Grown on Strain-Engineered Substrates. <i>ACS Nano</i> , <b>2017</b> , 11, 12337-12345	16.7	112
579	Chemical modification of single-walled carbon nanotubes with peroxytrifluoroacetic acid. <i>Carbon</i> , <b>2005</b> , 43, 1470-1478	10.4	111
578	Unravelling orientation distribution and merging behavior of monolayer MoS <sub>2</sub> domains on sapphire. <i>Nano Letters</i> , <b>2015</b> , 15, 198-205	11.5	110
577	Surface Monocrystallization of Copper Foil for Fast Growth of Large Single-Crystal Graphene under Free Molecular Flow. <i>Advanced Materials</i> , <b>2016</b> , 28, 8968-8974	24	110
576	High-Performance Photoresponsive Organic Nanotransistors with Single-Layer Graphenes as Two-Dimensional Electrodes. <i>Advanced Functional Materials</i> , <b>2009</b> , 19, 2743-2748	15.6	110
575	Quasi-freestanding monolayer heterostructure of graphene and hexagonal boron nitride on Ir(111) with a zigzag boundary. <i>Nano Letters</i> , <b>2014</b> , 14, 6342-7	11.5	108
574	Epitaxial Growth of Centimeter-Scale Single-Crystal MoS Monolayer on Au(111). <i>ACS Nano</i> , <b>2020</b> , 14, 5036-5045	16.7	107
573	Directly Grown Vertical Graphene Carpets as Janus Separators toward Stabilized Zn Metal Anodes. <i>Advanced Materials</i> , <b>2020</b> , 32, e2003425	24	106
572	Cap formation engineering: from opened C <sub>60</sub> to single-walled carbon nanotubes. <i>Nano Letters</i> , <b>2010</b> , 10, 3343-9	11.5	106
571	Biotemplating Growth of Nepenthes-like N-Doped Graphene as a Bifunctional Polysulfide Scavenger for Li-S Batteries. <i>ACS Nano</i> , <b>2018</b> , 12, 10240-10250	16.7	104
570	Three-dimensional nanostructured graphene: Synthesis and energy, environmental and biomedical applications. <i>Synthetic Metals</i> , <b>2017</b> , 234, 53-85	3.6	103
569	CVD growth of large area smooth-edged graphene nanomesh by nanosphere lithography. <i>Scientific Reports</i> , <b>2013</b> , 3, 1238	4.9	102
568	Growing Uniform Graphene Disks and Films on Molten Glass for Heating Devices and Cell Culture. <i>Advanced Materials</i> , <b>2015</b> , 27, 7839-46	24	102
567	CMP aerogels: ultrahigh-surface-area carbon-based monolithic materials with superb sorption performance. <i>Advanced Materials</i> , <b>2014</b> , 26, 8053-8	24	102



566	Rational design of porous nitrogen-doped Ti <sub>3</sub> C <sub>2</sub> MXene as a multifunctional electrocatalyst for LiB chemistry. <i>Nano Energy</i> , <b>2020</b> , 70, 104555	17.1	101
565	Hexagonal Boron Nitride-Graphene Heterostructures: Synthesis and Interfacial Properties. <i>Small</i> , <b>2016</b> , 12, 32-50	11	101
564	Chemical Alignment of Oxidatively Shortened Single-Walled Carbon Nanotubes on Silver Surface. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 5075-5078	3.4	101
563	Grain Boundary Structures and Electronic Properties of Hexagonal Boron Nitride on Cu(111). <i>Nano Letters</i> , <b>2015</b> , 15, 5804-10	11.5	100
562	All Chemical Vapor Deposition Synthesis and Intrinsic Bandgap Observation of MoS <sub>2</sub> /Graphene Heterostructures. <i>Advanced Materials</i> , <b>2015</b> , 27, 7086-92	24	100
561	High-performance single CdS nanowire (nanobelt) Schottky junction solar cells with Au/graphene Schottky electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2010</b> , 2, 3406-10	9.5	99
560	Direct low-temperature synthesis of graphene on various glasses by plasma-enhanced chemical vapor deposition for versatile, cost-effective electrodes. <i>Nano Research</i> , <b>2015</b> , 8, 3496-3504	10	98
559	Scalable chemical-vapour-deposition growth of three-dimensional graphene materials towards energy-related applications. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 3018-3036	58.5	98
558	Flexible perovskite solar cell-driven photo-rechargeable lithium-ion capacitor for self-powered wearable strain sensors. <i>Nano Energy</i> , <b>2019</b> , 60, 247-256	17.1	97
557	Creating one-dimensional nanoscale periodic ripples in a continuous mosaic graphene monolayer. <i>Physical Review Letters</i> , <b>2014</b> , 113, 086102	7.4	97
556	Substrate-induced Raman frequency variation for single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 17156-7	16.4	96
555	Growth of high-density horizontally aligned SWNT arrays using Trojan catalysts. <i>Nature Communications</i> , <b>2015</b> , 6, 6099	17.4	94
554	Interfacial engineering in graphene bandgap. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 3059-3099	58.5	94
553	Inverse relationship between carrier mobility and bandgap in graphene. <i>Journal of Chemical Physics</i> , <b>2013</b> , 138, 084701	3.9	94
552	pH-Dependent Adsorption of Gold Nanoparticles on p-Aminothiophenol-Modified Gold Substrates. <i>Langmuir</i> , <b>1999</b> , 15, 5197-5199	4	94
551	Diatomite-Templated Synthesis of Freestanding 3D Graphdiyne for Energy Storage and Catalysis Application. <i>Advanced Materials</i> , <b>2018</b> , 30, e1800548	24	93
550	Catalyst-Free Growth of Three-Dimensional Graphene Flakes and Graphene/g-C <sub>3</sub> N <sub>4</sub> Composite for Hydrocarbon Oxidation. <i>ACS Nano</i> , <b>2016</b> , 10, 3665-73	16.7	93
549	Architecture of Graphdiyne-Containing Thin Film Using Modified Glaser-Hay Coupling Reaction for Enhanced Photocatalytic Property of TiO <sub>2</sub> . <i>Advanced Materials</i> , <b>2017</b> , 29, 1700421	24	91

548	Enhanced Kinetics Harvested in Heteroatom Dual-Doped Graphitic Hollow Architectures toward High Rate Printable Potassium-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001161	21.8	91
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546	SERS Titration of 4-Mercaptopyridine Self-Assembled Monolayers at Aqueous Buffer/Gold Interfaces. <i>Analytical Chemistry</i> , <b>1999</b> , 71, 1354-8	7.8	91
545	Printable magnesium ion quasi-solid-state asymmetric supercapacitors for flexible solar-charging integrated units. <i>Nature Communications</i> , <b>2019</b> , 10, 4913	17.4	90
544	Towards super-clean graphene. <i>Nature Communications</i> , <b>2019</b> , 10, 1912	17.4	89
543	2D graphdiyne materials: challenges and opportunities in energy field. <i>Science China Chemistry</i> , <b>2018</b> , 61, 765-786	7.9	89
542	Selectively enhanced photocurrent generation in twisted bilayer graphene with van Hove singularity. <i>Nature Communications</i> , <b>2016</b> , 7, 10699	17.4	88
541	Self-Terminating Confinement Approach for Large-Area Uniform Monolayer Graphene Directly over Si/SiO <sub>2</sub> by Chemical Vapor Deposition. <i>ACS Nano</i> , <b>2017</b> , 11, 1946-1956	16.7	87
540	Modulation-doped growth of mosaic graphene with single-crystalline p-n junctions for efficient photocurrent generation. <i>Nature Communications</i> , <b>2012</b> , 3, 1280	17.4	87
539	Evolutionary Chlorination of Graphene: From Charge-Transfer Complex to Covalent Bonding and Nonbonding. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 844-850	3.8	87
538	Greatly Enhanced Anticorrosion of Cu by Commensurate Graphene Coating. <i>Advanced Materials</i> , <b>2018</b> , 30, 1702944	24	85
537	Sorting out Semiconducting Single-Walled Carbon Nanotube Arrays by Preferential Destruction of Metallic Tubes Using Xenon-Lamp Irradiation. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 3849-3856	3.8	85
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535	Synthesis of Nickel Hydroxide Nanoribbons with a New Phase: A Solution Chemistry Approach. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 7531-7533	3.4	83
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532	Monitoring Local Strain Vector in Atomic-Layered MoSe <sub>2</sub> by Second-Harmonic Generation. <i>Nano Letters</i> , <b>2017</b> , 17, 7539-7543	11.5	80
531	High-quality single-layer graphene via reparative reduction of graphene oxide. <i>Nano Research</i> , <b>2011</b> , 4, 434-439	10	80

530	Enhanced Sulfur Redox and Polysulfide Regulation via Porous VN-Modified Separator for Li-S Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 5687-5694	9.5	80
529	Raman Spectra and Corresponding Strain Effects in Graphyne and Graphdiyne. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 10605-10613	3.8	80
528	Chemical vapour deposition. <i>Nature Reviews Methods Primers</i> , <b>2021</b> , 1,		80
527	Improved Epitaxy of AlN Film for Deep-Ultraviolet Light-Emitting Diodes Enabled by Graphene. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807345	24	79
526	Surface Engineering of Copper Foils for Growing Centimeter-Sized Single-Crystalline Graphene. <i>ACS Nano</i> , <b>2016</b> , 10, 2922-9	16.7	78
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510	MOF-derived conductive carbon nitrides for separator-modified LiS batteries and flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 1757-1766	13	73
509	Direct CVD Growth of Graphene on Traditional Glass: Methods and Mechanisms. <i>Advanced Materials</i> , <b>2019</b> , 31, e1803639	24	73
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