

James M Tour

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526
papers

70,735
citations

133
h-index

253
g-index

575
ext. papers

77,928
ext. citations

12.7
avg, IF

8.2
L-index

#	Paper	IF	Citations
526	Improved synthesis of graphene oxide. <i>ACS Nano</i> , 2010 , 4, 4806-14	16.7	8269
525	Longitudinal unzipping of carbon nanotubes to form graphene nanoribbons. <i>Nature</i> , 2009 , 458, 872-6	50.4	2885
524	Functionalization of carbon nanotubes by electrochemical reduction of aryl diazonium salts: a bucky paper electrode. <i>Journal of the American Chemical Society</i> , 2001 , 123, 6536-42	16.4	1257
523	Electronic structure control of single-walled carbon nanotube functionalization. <i>Science</i> , 2003 , 301, 1519-23	33.3	1179
522	Molecular electronics. Synthesis and testing of components. <i>Accounts of Chemical Research</i> , 2000 , 33, 791-804	24.3	1168
521	Growth of graphene from solid carbon sources. <i>Nature</i> , 2010 , 468, 549-52	50.4	1106
520	Atomic cobalt on nitrogen-doped graphene for hydrogen generation. <i>Nature Communications</i> , 2015 , 6, 8668	17.4	1077
519	Laser-induced porous graphene films from commercial polymers. <i>Nature Communications</i> , 2014 , 5, 5714	17.4	1020
518	Conjugated Macromolecules of Precise Length and Constitution. Organic Synthesis for the Construction of Nanoarchitectures. <i>Chemical Reviews</i> , 1996 , 96, 537-554	68.1	889
517	Diazonium functionalization of surfactant-wrapped chemically converted graphene sheets. <i>Journal of the American Chemical Society</i> , 2008 , 130, 16201-6	16.4	844
516	Covalent chemistry of single-wall carbon nanotubes. <i>Journal of Materials Chemistry</i> , 2002 , 12, 1952-1958		770
515	Self-Assembled Monolayers and Multilayers of Conjugated Thiols, .alpha.,.omega.-Dithiols, and Thioacetyl-Containing Adsorbates. Understanding Attachments between Potential Molecular Wires and Gold Surfaces. <i>Journal of the American Chemical Society</i> , 1995 , 117, 9529-9534	16.4	660
514	Highly Functionalized Carbon Nanotubes Using in Situ Generated Diazonium Compounds. <i>Chemistry of Materials</i> , 2001 , 13, 3823-3824	9.6	609
513	3-Dimensional graphene carbon nanotube carpet-based microsupercapacitors with high electrochemical performance. <i>Nano Letters</i> , 2013 , 13, 72-8	11.5	588
512	Covalent Functionalization of Single-Walled Carbon Nanotubes for Materials Applications. <i>Journal of Physical Chemistry A</i> , 2004 , 108, 11151-11159	2.8	559
511	Spatially resolving edge states of chiral graphene nanoribbons. <i>Nature Physics</i> , 2011 , 7, 616-620	16.2	557
510	Coal as an abundant source of graphene quantum dots. <i>Nature Communications</i> , 2013 , 4, 2943	17.4	556

509	Mechanism of graphene oxide formation. <i>ACS Nano</i> , 2014 , 8, 3060-8	16.7	553
508	Dispersion of Functionalized Carbon Nanotubes in Polystyrene. <i>Macromolecules</i> , 2002 , 35, 8825-8830	5.5	547
507	Large-scale growth and characterizations of nitrogen-doped monolayer graphene sheets. <i>ACS Nano</i> , 2011 , 5, 4112-7	16.7	538
506	Edge-oriented MoS ₂ nanoporous films as flexible electrodes for hydrogen evolution reactions and supercapacitor devices. <i>Advanced Materials</i> , 2014 , 26, 8163-8	24	497
505	Toward the synthesis of wafer-scale single-crystal graphene on copper foils. <i>ACS Nano</i> , 2012 , 6, 9110-7	16.7	488
504	Spontaneous high-concentration dispersions and liquid crystals of graphene. <i>Nature Nanotechnology</i> , 2010 , 5, 406-11	28.7	488
503	Lower-defect graphene oxide nanoribbons from multiwalled carbon nanotubes. <i>ACS Nano</i> , 2010 , 4, 2059-69	16.7	488
502	Dissolution of small diameter single-wall carbon nanotubes in organic solvents?. <i>Chemical Communications</i> , 2001 , 193-194	5.8	487
501	Solvent-free functionalization of carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2003 , 125, 1156-7	16.4	465
500	Graphene oxide. Origin of acidity, its instability in water, and a new dynamic structural model. <i>ACS Nano</i> , 2013 , 7, 576-88	16.7	450
499	Reduction of graphene oxide via bacterial respiration. <i>ACS Nano</i> , 2010 , 4, 4852-6	16.7	449
498	High-yield organic dispersions of unfunctionalized graphene. <i>Nano Letters</i> , 2009 , 9, 3460-2	11.5	445
497	Flexible Boron-Doped Laser-Induced Graphene Microsupercapacitors. <i>ACS Nano</i> , 2015 , 9, 5868-75	16.7	410
496	Porous cobalt-based thin film as a bifunctional catalyst for hydrogen generation and oxygen generation. <i>Advanced Materials</i> , 2015 , 27, 3175-80	24	406
495	Theoretical Study of a Molecular Resonant Tunneling Diode. <i>Journal of the American Chemical Society</i> , 2000 , 122, 3015-3020	16.4	403
494	A seamless three-dimensional carbon nanotube graphene hybrid material. <i>Nature Communications</i> , 2012 , 3, 1225	17.4	390
493	Graphene nanoribbon and nanostructured SnO ₂ composite anodes for lithium ion batteries. <i>ACS Nano</i> , 2013 , 7, 6001-6	16.7	384
492	Growth of graphene from food, insects, and waste. <i>ACS Nano</i> , 2011 , 5, 7601-7	16.7	384

491	Overcoming the insolubility of carbon nanotubes through high degrees of sidewall functionalization. <i>Chemistry - A European Journal</i> , 2004 , 10, 812-7	4.8	377
490	Unbundled and Highly Functionalized Carbon Nanotubes from Aqueous Reactions. <i>Nano Letters</i> , 2003 , 3, 1215-1218	11.5	367
489	Laser-Induced Graphene by Multiple Lasing: Toward Electronics on Cloth, Paper, and Food. <i>ACS Nano</i> , 2018 , 12, 2176-2183	16.7	364
488	Directional control in thermally driven single-molecule nanocars. <i>Nano Letters</i> , 2005 , 5, 2330-4	11.5	364
487	Boron- and nitrogen-doped graphene quantum dots/graphene hybrid nanoplatelets as efficient electrocatalysts for oxygen reduction. <i>ACS Nano</i> , 2014 , 8, 10837-43	16.7	346
486	Pristine graphite oxide. <i>Journal of the American Chemical Society</i> , 2012 , 134, 2815-22	16.4	336
485	High-Performance Pseudocapacitive Microsupercapacitors from Laser-Induced Graphene. <i>Advanced Materials</i> , 2016 , 28, 838-45	24	335
484	Charge transport through self-assembled monolayers of compounds of interest in molecular electronics. <i>Journal of the American Chemical Society</i> , 2002 , 124, 5550-60	16.4	334
483	Single-Atomic Ruthenium Catalytic Sites on Nitrogen-Doped Graphene for Oxygen Reduction Reaction in Acidic Medium. <i>ACS Nano</i> , 2017 , 11, 6930-6941	16.7	327
482	Graphene-wrapped MnO ₂ -graphene nanoribbons as anode materials for high-performance lithium ion batteries. <i>Advanced Materials</i> , 2013 , 25, 6298-302	24	326
481	Molecularly inherent voltage-controlled conductance switching. <i>Nature Materials</i> , 2005 , 4, 167-72	27	323
480	Direct covalent grafting of conjugated molecules onto Si, GaAs, and Pd surfaces from aryldiazonium salts. <i>Journal of the American Chemical Society</i> , 2004 , 126, 370-8	16.4	315
479	Efficient electrocatalytic oxygen evolution on amorphous nickel-cobalt binary oxide nanoporous layers. <i>ACS Nano</i> , 2014 , 8, 9518-23	16.7	310
478	Kinetics of diazonium functionalization of chemically converted graphene nanoribbons. <i>ACS Nano</i> , 2010 , 4, 1949-54	16.7	301
477	Graphene oxide for effective radionuclide removal. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 2321-73.6	3.6	300
476	Magnetite (Fe ₃ O ₄) Core-Shell Nanowires: Synthesis and Magnetoresistance. <i>Nano Letters</i> , 2004 , 4, 2151-2155	2.6	298
475	Laser-Induced Graphene: From Discovery to Translation. <i>Advanced Materials</i> , 2019 , 31, e1803621	24	287
474	New routes to graphene, graphene oxide and their related applications. <i>Advanced Materials</i> , 2012 , 24, 4924-55	24	282

473	Electrochemical CO ₂ Reduction with Atomic Iron-Dispersed on Nitrogen-Doped Graphene. <i>Advanced Energy Materials</i> , 2018 , 8, 1703487	21.8	277
472	Alternating Donor/Acceptor Repeat Units in Polythiophenes. Intramolecular Charge Transfer for Reducing Band Gaps in Fully Substituted Conjugated Polymers. <i>Journal of the American Chemical Society</i> , 1998 , 120, 5355-5362	16.4	276
471	Flexible and stackable laser-induced graphene supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 3414-9	9.5	265
470	Rational design of hybrid graphene films for high-performance transparent electrodes. <i>ACS Nano</i> , 2011 , 5, 6472-9	16.7	265
469	High-Performance Hydrogen Evolution from MoS ₂ (1-x) P(x) Solid Solution. <i>Advanced Materials</i> , 2016 , 28, 1427-32	24	260
468	Simultaneous measurements of electronic conduction and Raman response in molecular junctions. <i>Nano Letters</i> , 2008 , 8, 919-24	11.5	256
467	Resistive switches and memories from silicon oxide. <i>Nano Letters</i> , 2010 , 10, 4105-10	11.5	255
466	Reversible photo-switching of single azobenzene molecules in controlled nanoscale environments. <i>Nano Letters</i> , 2008 , 8, 1644-8	11.5	244
465	Laser-Induced Graphene. <i>Accounts of Chemical Research</i> , 2018 , 51, 1609-1620	24.3	243
464	Laser-Induced Graphene Formation on Wood. <i>Advanced Materials</i> , 2017 , 29, 1702211	24	243
463	Growth of bilayer graphene on insulating substrates. <i>ACS Nano</i> , 2011 , 5, 8187-92	16.7	243
462	Convergent Synthetic Routes to Orthogonally Fused Conjugated Oligomers Directed toward Molecular Scale Electronic Device Applications. <i>Journal of Organic Chemistry</i> , 1996 , 61, 6906-6921	4.2	243
461	Polymer-coated nanoparticles for enhanced oil recovery. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	239
460	Graphene nanoribbon composites. <i>ACS Nano</i> , 2010 , 4, 7415-20	16.7	239
459	Molecular Scale Electronics: A Synthetic/Computational Approach to Digital Computing. <i>Journal of the American Chemical Society</i> , 1998 , 120, 8486-8493	16.4	233
458	Direct growth of bilayer graphene on SiO ₂ substrates by carbon diffusion through nickel. <i>ACS Nano</i> , 2011 , 5, 8241-7	16.7	231
457	Iterative Divergent/Convergent Approach to Linear Conjugated Oligomers by Successive Doubling of the Molecular Length: A Rapid Route to a 128-Å Long Potential Molecular Wire. <i>Angewandte Chemie International Edition in English</i> , 1994 , 33, 1360-1363		229
456	Graphite oxide flame-retardant polymer nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2009 , 1, 2256-61	9.5	225

455	Recent progress on nanovehicles. <i>Chemical Society Reviews</i> , 2006 , 35, 1043-55	58.5	224
454	Graphene Chemistry: Synthesis and Manipulation. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 2425-2432	4.2	220
453	Synthesis and preliminary testing of molecular wires and devices. <i>Chemistry - A European Journal</i> , 2001 , 7, 5118-34	4.8	219
452	Rapid Solution and Solid Phase Syntheses of Oligo(1,4-phenylene ethynylene)s with Thioester Termini: Molecular Scale Wires with Alligator Clips. Derivation of Iterative Reaction Efficiencies on a Polymer Support. <i>Journal of Organic Chemistry</i> , 1997 , 62, 1388-1410	4.2	209
451	Synthesis of ¹⁴ C-Labeled C60, Its Suspension in Water, and Its Uptake by Human Keratinocytes. <i>Journal of the American Chemical Society</i> , 1994 , 116, 4517-4518	16.4	209
450	Computing with molecules. <i>Scientific American</i> , 2000 , 282, 86-93	0.5	206
449	Terahertz and infrared spectroscopy of gated large-area graphene. <i>Nano Letters</i> , 2012 , 12, 3711-5	11.5	203
448	Boron- and Nitrogen-Substituted Graphene Nanoribbons as Efficient Catalysts for Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2015 , 27, 1181-1186	9.6	202
447	Gram-scale bottom-up flash graphene synthesis. <i>Nature</i> , 2020 , 577, 647-651	50.4	201
446	Water-soluble, exfoliated, nonroping single-wall carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2004 , 126, 11158-9	16.4	200
445	Layer-by-layer removal of graphene for device patterning. <i>Science</i> , 2011 , 331, 1168-72	33.3	199
444	Effect of local environment on molecular conduction: isolated molecule versus self-assembled monolayer. <i>Nano Letters</i> , 2005 , 5, 61-5	11.5	196
443	Single wall carbon nanotube amplification: en route to a type-specific growth mechanism. <i>Journal of the American Chemical Society</i> , 2006 , 128, 15824-9	16.4	196
442	Vibrational and electronic heating in nanoscale junctions. <i>Nature Nanotechnology</i> , 2011 , 6, 33-8	28.7	190
441	Highly conductive graphene nanoribbons by longitudinal splitting of carbon nanotubes using potassium vapor. <i>ACS Nano</i> , 2011 , 5, 968-74	16.7	186
440	Three-dimensional metal-graphene-nanotube multifunctional hybrid materials. <i>ACS Nano</i> , 2013 , 7, 58-64	16.7	185
439	Electrical Measurements in Molecular Electronics. <i>Chemistry of Materials</i> , 2004 , 16, 4423-4435	9.6	184
438	Rapid Syntheses of Oligo(2,5-thiophene ethynylene)s with Thioester Termini: Potential Molecular Scale Wires with Alligator Clips. <i>Journal of Organic Chemistry</i> , 1997 , 62, 1376-1387	4.2	183

437	Functionalization of single-walled carbon nanotubes "on water". <i>Journal of the American Chemical Society</i> , 2006 , 128, 12899-904	16.4	183
436	Graphene oxide as a high-performance fluid-loss-control additive in water-based drilling fluids. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 222-7	9.5	180
435	Green chemical functionalization of single-walled carbon nanotubes in ionic liquids. <i>Journal of the American Chemical Society</i> , 2005 , 127, 14867-70	16.4	176
434	Surface-rolling molecules. <i>Journal of the American Chemical Society</i> , 2006 , 128, 4854-64	16.4	175
433	Purification of gram quantities of C60. A new inexpensive and facile method. <i>Journal of the American Chemical Society</i> , 1992 , 114, 7917-7919	16.4	175
432	Decoration, Migration, and Aggregation of Palladium Nanoparticles on Graphene Sheets. <i>Chemistry of Materials</i> , 2010 , 22, 5695-5699	9.6	172
431	Chemical vapor deposition of graphene single crystals. <i>Accounts of Chemical Research</i> , 2014 , 47, 1327-37	24.3	170
430	En route to a motorized nanocar. <i>Organic Letters</i> , 2006 , 8, 1713-6	6.2	170
429	Molecular Electronics 2003 ,		170
428	Synthesis of single-molecule nanocars. <i>Accounts of Chemical Research</i> , 2009 , 42, 473-87	24.3	169
427	Injectable nanocomposites of single-walled carbon nanotubes and biodegradable polymers for bone tissue engineering. <i>Biomacromolecules</i> , 2006 , 7, 2237-42	6.9	169
426	Molecular machines open cell membranes. <i>Nature</i> , 2017 , 548, 567-572	50.4	164
425	Laser-Induced Graphene in Controlled Atmospheres: From Superhydrophilic to Superhydrophobic Surfaces. <i>Advanced Materials</i> , 2017 , 29, 1700496	24	163
424	Laser-induced graphene fibers. <i>Carbon</i> , 2018 , 126, 472-479	10.4	163
423	Liquid crystals of aqueous, giant graphene oxide flakes. <i>Soft Matter</i> , 2011 , 7, 11154	3.6	160
422	En route to surface-bound electric field-driven molecular motors. <i>Journal of Organic Chemistry</i> , 2003 , 68, 5091-103	4.2	159
421	Cobalt nanoparticles embedded in nitrogen-doped carbon for the hydrogen evolution reaction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 8083-7	9.5	158
420	Large flake graphene oxide fibers with unconventional 100% knot efficiency and highly aligned small flake graphene oxide fibers. <i>Advanced Materials</i> , 2013 , 25, 4592-7	24	158

4 ¹⁹	High thermal conductivity of suspended few-layer hexagonal boron nitride sheets. <i>Nano Research</i> , 2014 , 7, 1232-1240	10	157
4 ¹⁸	Rebar graphene. <i>ACS Nano</i> , 2014 , 8, 5061-8	16.7	155
4 ¹⁷	Nanocomposite of polyaniline nanorods grown on graphene nanoribbons for highly capacitive pseudocapacitors. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 6622-7	9.5	155
4 ¹⁶	Lithium Batteries with Nearly Maximum Metal Storage. <i>ACS Nano</i> , 2017 , 11, 6362-6369	16.7	154
4 ¹⁵	Theoretical Interpretation of Conductivity Measurements of a Thiolane Sandwich. A Molecular Scale Electronic Controller. <i>Journal of the American Chemical Society</i> , 1998 , 120, 3970-3974	16.4	153
4 ¹⁴	Three-dimensional nanoporous Fe ₃ O ₄ /Fe ₃ C-graphene heterogeneous thin films for lithium-ion batteries. <i>ACS Nano</i> , 2014 , 8, 3939-46	16.7	151
4 ¹³	Patterning graphene through the self-assembled templates: toward periodic two-dimensional graphene nanostructures with semiconductor properties. <i>Journal of the American Chemical Society</i> , 2010 , 132, 14730-2	16.4	148
4 ¹²	Large-area Bernal-stacked bi-, tri-, and tetralayer graphene. <i>ACS Nano</i> , 2012 , 6, 9790-6	16.7	147
4 ¹¹	Highly transparent nonvolatile resistive memory devices from silicon oxide and graphene. <i>Nature Communications</i> , 2012 , 3, 1101	17.4	146
4 ¹⁰	Ozonation of Single-Walled Carbon Nanotubes and Their Assemblies on Rigid Self-Assembled Monolayers. <i>Chemistry of Materials</i> , 2002 , 14, 4235-4241	9.6	145
4 ⁰⁹	Iron Oxide Nanoparticle and Graphene Nanoribbon Composite as an Anode Material for High-Performance Li-Ion Batteries. <i>Advanced Functional Materials</i> , 2014 , 24, 2044-2048	15.6	142
4 ⁰⁸	Molecular wires. <i>Topics in Current Chemistry</i> , 2005 , 257, 33-62		141
4 ⁰⁷	Sulfur-Doped Laser-Induced Porous Graphene Derived from Polysulfone-Class Polymers and Membranes. <i>ACS Nano</i> , 2018 , 12, 289-297	16.7	141
4 ⁰⁶	Top-Down versus Bottom-Up Fabrication of Graphene-Based Electronics. <i>Chemistry of Materials</i> , 2014 , 26, 163-171	9.6	138
4 ⁰⁵	Bandgap engineering of coal-derived graphene quantum dots. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 7041-8	9.5	137
4 ⁰⁴	In Situ Formation of Metal Oxide Nanocrystals Embedded in Laser-Induced Graphene. <i>ACS Nano</i> , 2015 , 9, 9244-51	16.7	137
4 ⁰³	Self-Assembled Oligo(phenylene-ethynylene) Molecular Electronic Switch Monolayers on Gold: Structures and Chemical Stability. <i>Langmuir</i> , 2003 , 19, 8245-8255	4	137
4 ⁰²	Self-Assembling Supramolecular Nanostructures from a C(60) Derivative: Nanorods and Vesicles. <i>Angewandte Chemie - International Edition</i> , 1999 , 38, 2403-2405	16.4	137

401	Imine-Bridged Planar Poly(p-phenylene) Derivatives for Maximization of Extended .pi.-Conjugation. The Common Intermediate Approach. <i>Journal of the American Chemical Society</i> , 1994 , 116, 11723-11736	16.4	137
400	Highly efficient conversion of superoxide to oxygen using hydrophilic carbon clusters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 2343-8	11.5	136
399	Antioxidant single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2009 , 131, 3934-416.4	16.4	136
398	Graphene Quantum Dots Doping of MoS2 Monolayers. <i>Advanced Materials</i> , 2015 , 27, 5235-40	24	135
397	Glass transition of polymer/single-walled carbon nanotube composite films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 3339-3345	2.6	135
396	Molecular Alligator Clips for Single Molecule Electronics. Studies of Group 16 and Isonitriles Interfaced with Au Contacts. <i>Journal of the American Chemical Society</i> , 1999 , 121, 411-416	16.4	135
395	Three-Dimensional Printed Graphene Foams. <i>ACS Nano</i> , 2017 , 11, 6860-6867	16.7	133
394	In situ imaging of the conducting filament in a silicon oxide resistive switch. <i>Scientific Reports</i> , 2012 , 2, 242	4.9	133
393	Laser-Induced Graphene Layers and Electrodes Prevents Microbial Fouling and Exerts Antimicrobial Action. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 18238-18247	9.5	130
392	Towards hybrid superlattices in graphene. <i>Nature Communications</i> , 2011 , 2, 559	17.4	130
391	Electronic two-terminal bistable graphitic memories. <i>Nature Materials</i> , 2008 , 7, 966-71	27	126
390	Covalent Functionalization of Surfactant-Wrapped Graphene Nanoribbons. <i>Chemistry of Materials</i> , 2009 , 21, 5284-5291	9.6	125
389	Molecular engineering and measurements to test hypothesized mechanisms in single molecule conductance switching. <i>Journal of the American Chemical Society</i> , 2006 , 128, 1959-67	16.4	125
388	Direct real-time monitoring of stage transitions in graphite intercalation compounds. <i>ACS Nano</i> , 2013 , 7, 2773-80	16.7	121
387	Laser-Induced Graphene for Flexible and Embeddable Gas Sensors. <i>ACS Nano</i> , 2019 , 13, 3474-3482	16.7	120
386	Biocompatibility of native and functionalized single-walled carbon nanotubes for neuronal interface. <i>Journal of Nanoscience and Nanotechnology</i> , 2006 , 6, 1365-74	1.3	119
385	Molecular engineering of the polarity and interactions of molecular electronic switches. <i>Journal of the American Chemical Society</i> , 2005 , 127, 17421-6	16.4	119
384	Laminated Object Manufacturing of 3D-Printed Laser-Induced Graphene Foams. <i>Advanced Materials</i> , 2018 , 30, e1707416	24	118

383	Enhanced Electrocatalysis for Hydrogen Evolution Reactions from WS ₂ Nanoribbons. <i>Advanced Energy Materials</i> , 2014 , 4, 1301875	21.8	116
382	Atomic H-Induced MoC Hybrid as an Active and Stable Bifunctional Electrocatalyst. <i>ACS Nano</i> , 2017 , 11, 384-394	16.7	114
381	Soluble graphene through edge-selective functionalization. <i>Nano Research</i> , 2010 , 3, 117-125	10	114
380	Enhanced Cycling Stability of Lithium-Ion Batteries Using Graphene-Wrapped Fe ₃ O ₄ -Graphene Nanoribbons as Anode Materials. <i>Advanced Energy Materials</i> , 2015 , 5, 1500171	21.8	113
379	Chemical Mass Production of Graphene Nanoplatelets in ~100% Yield. <i>ACS Nano</i> , 2016 , 10, 274-9	16.7	112
378	Graphene nanoribbon devices produced by oxidative unzipping of carbon nanotubes. <i>ACS Nano</i> , 2010 , 4, 5405-13	16.7	111
377	Green carbon as a bridge to renewable energy. <i>Nature Materials</i> , 2010 , 9, 871-4	27	110
376	Soluble ultra-short single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2006 , 128, 10568-71	16.4	110
375	Functionalized low defect graphene nanoribbons and polyurethane composite film for improved gas barrier and mechanical performances. <i>ACS Nano</i> , 2013 , 7, 10380-6	16.7	109
374	Longitudinal splitting of boron nitride nanotubes for the facile synthesis of high quality boron nitride nanoribbons. <i>Nano Letters</i> , 2011 , 11, 3221-6	11.5	106
373	Chemical and Potential-Assisted Assembly of Thiolacetyl-Terminated Oligo(phenylene ethynylene)s on Gold Surfaces. <i>Chemistry of Materials</i> , 2002 , 14, 2905-2909	9.6	106
372	Graphene nanoribbons as an advanced precursor for making carbon fiber. <i>ACS Nano</i> , 2013 , 7, 1628-37	16.7	104
371	Effects of hydration on molecular junction transport. <i>Nature Materials</i> , 2006 , 5, 901-8	27	104
370	Rheological behaviour and mechanical characterization of injectable poly(propylene fumarate)/single-walled carbon nanotube composites for bone tissue engineering. <i>Nanotechnology</i> , 2005 , 16, S531-8	3.4	103
369	Toward a light-driven motorized nanocar: synthesis and initial imaging of single molecules. <i>ACS Nano</i> , 2012 , 6, 592-7	16.7	100
368	Reversible bistable switching in nanoscale thiol-substituted oligoaniline molecular junctions. <i>Nano Letters</i> , 2005 , 5, 2365-72	11.5	100
367	Spontaneous assembly of organic thiocyanates on gold surfaces. Alternative precursors for gold thiolate assemblies. <i>Journal of the American Chemical Society</i> , 2004 , 126, 13172-3	16.4	100
366	Extended orthogonally fused conducting oligomers for molecular electronic devices. <i>Journal of the American Chemical Society</i> , 1991 , 113, 7064-7066	16.4	100

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- 364 Vertically Aligned WS₂ Nanosheets for Water Splitting. *Advanced Functional Materials*, **2015**, 25, 6199-6206 16.4 98
- 363 Controlled modulation of conductance in silicon devices by molecular monolayers. *Journal of the American Chemical Society*, **2006**, 128, 14537-41 16.4 98
- 362 Electrochemical origin of voltage-controlled molecular conductance switching. *Journal of the American Chemical Society*, **2006**, 128, 14828-35 16.4 98
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- 360 Mediating stochastic switching of single molecules using chemical functionality. *Journal of the American Chemical Society*, **2004**, 126, 12214-5 16.4 97
- 359 Assembly of DNA/Fullerene Hybrid Materials. *Angewandte Chemie - International Edition*, **1998**, 37, 1528-1531 16.4 96
- 358 Preparation of Three-Dimensional Graphene Foams Using Powder Metallurgy Templates. *ACS Nano*, **2016**, 10, 1411-6 16.7 95
- 357 Graphene: powder, flakes, ribbons, and sheets. *Accounts of Chemical Research*, **2013**, 46, 2307-18 24.3 95
- 356 Approaches to orthogonally fused conducting polymers for molecular electronics. *Journal of the American Chemical Society*, **1990**, 112, 5662-5663 16.4 95
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