

Hui-Ming Cheng

List of Publications by Citations

Source: <https://exaly.com/author-pdf/4975007/hui-ming-cheng-publications-by-citations.pdf>

Version: 2023-09-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

775
papers

106,138
citations

151
h-index

309
g-index

826
ext. papers

118,739
ext. citations

12.1
avg, IF

8.75
L-index

#	Paper	IF	Citations
775	Advanced materials for energy storage. <i>Advanced Materials</i> , 2010 , 22, E28-62	24	3687
774	The reduction of graphene oxide. <i>Carbon</i> , 2012 , 50, 3210-3228	10.4	3551
773	Three-dimensional flexible and conductive interconnected graphene networks grown by chemical vapour deposition. <i>Nature Materials</i> , 2011 , 10, 424-8	27	3105
772	Graphene-Like Carbon Nitride Nanosheets for Improved Photocatalytic Activities. <i>Advanced Functional Materials</i> , 2012 , 22, 4763-4770	15.6	2446
771	Graphene anchored with Co_3O_4 nanoparticles as anode of lithium ion batteries with enhanced reversible capacity and cyclic performance. <i>ACS Nano</i> , 2010 , 4, 3187-94	16.7	2201
770	Doped graphene sheets as anode materials with superhigh rate and large capacity for lithium ion batteries. <i>ACS Nano</i> , 2011 , 5, 5463-71	16.7	1700
769	Graphene-Wrapped Fe_3O_4 Anode Material with Improved Reversible Capacity and Cyclic Stability for Lithium Ion Batteries. <i>Chemistry of Materials</i> , 2010 , 22, 5306-5313	9.6	1660
768	Hydrogen storage in single-walled carbon nanotubes at room temperature. <i>Science</i> , 1999 , 286, 1127-9	33.3	1649
767	3D aperiodic hierarchical porous graphitic carbon material for high-rate electrochemical capacitive energy storage. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 373-6	16.4	1604
766	Unique electronic structure induced high photoreactivity of sulfur-doped graphitic C_3N_4 . <i>Journal of the American Chemical Society</i> , 2010 , 132, 11642-8	16.4	1597
765	Graphene/metal oxide composite electrode materials for energy storage. <i>Nano Energy</i> , 2012 , 1, 107-131	17.1	1507
764	Lightweight and flexible graphene foam composites for high-performance electromagnetic interference shielding. <i>Advanced Materials</i> , 2013 , 25, 1296-300	24	1389
763	Fabrication of Graphene/Polyaniline Composite Paper via In Situ Anodic Electropolymerization for High-Performance Flexible Electrode. <i>ACS Nano</i> , 2009 , 3, 1745-52	16.7	1355
762	High-energy MnO_2 nanowire/graphene and graphene asymmetric electrochemical capacitors. <i>ACS Nano</i> , 2010 , 4, 5835-42	16.7	1331
761	Direct reduction of graphene oxide films into highly conductive and flexible graphene films by hydrohalic acids. <i>Carbon</i> , 2010 , 48, 4466-4474	10.4	1305
760	Progress in flexible lithium batteries and future prospects. <i>Energy and Environmental Science</i> , 2014 , 7, 1307-1338	35.4	1103
759	More Reliable Lithium-Sulfur Batteries: Status, Solutions and Prospects. <i>Advanced Materials</i> , 2017 , 29, 1606823	24	1054

758	Anchoring Hydrous RuO ₂ on Graphene Sheets for High-Performance Electrochemical Capacitors. <i>Advanced Functional Materials</i> , 2010 , 20, 3595-3602	15.6	1033
757	On the true photoreactivity order of {001}, {010}, and {101} facets of anatase TiO ₂ crystals. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 2133-7	16.4	1004
756	Fluorographene: a two-dimensional counterpart of Teflon. <i>Small</i> , 2010 , 6, 2877-84	11	979
755	Titania-based photocatalysts: crystal growth, doping and heterostructuring. <i>Journal of Materials Chemistry</i> , 2010 , 20, 831-843		953
754	Repeated growth and bubbling transfer of graphene with millimetre-size single-crystal grains using platinum. <i>Nature Communications</i> , 2012 , 3, 699	17.4	884
753	Oxygen bridges between NiO nanosheets and graphene for improvement of lithium storage. <i>ACS Nano</i> , 2012 , 6, 3214-23	16.7	866
752	A graphene-pure-sulfur sandwich structure for ultrafast, long-life lithium-sulfur batteries. <i>Advanced Materials</i> , 2014 , 26, 625-31, 664	24	842
751	Titanium dioxide crystals with tailored facets. <i>Chemical Reviews</i> , 2014 , 114, 9559-612	68.1	796
750	Self-Assembled Free-Standing Graphite Oxide Membrane. <i>Advanced Materials</i> , 2009 , 21, 3007-3011	24	788
749	Efficient preparation of large-area graphene oxide sheets for transparent conductive films. <i>ACS Nano</i> , 2010 , 4, 5245-52	16.7	775
748	Conductive porous vanadium nitride/graphene composite as chemical anchor of polysulfides for lithium-sulfur batteries. <i>Nature Communications</i> , 2017 , 8, 14627	17.4	757
747	Crystal facet engineering of semiconductor photocatalysts: motivations, advances and unique properties. <i>Chemical Communications</i> , 2011 , 47, 6763-83	5.8	753
746	Graphene/Cellulose Paper Flexible Supercapacitors. <i>Advanced Energy Materials</i> , 2011 , 1, 917-922	21.8	745
745	Synthesis of graphene sheets with high electrical conductivity and good thermal stability by hydrogen arc discharge exfoliation. <i>ACS Nano</i> , 2009 , 3, 411-7	16.7	702
744	Large-area high-quality 2D ultrathin Mo ₂ C superconducting crystals. <i>Nature Materials</i> , 2015 , 14, 1135-41	27	674
743	Fibrous hybrid of graphene and sulfur nanocrystals for high-performance lithium-sulfur batteries. <i>ACS Nano</i> , 2013 , 7, 5367-75	16.7	670
742	Carbon/Sulfur composites for Li/S batteries: status and prospects. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 9382	13	664
741	Flexible graphene-based lithium ion batteries with ultrafast charge and discharge rates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 17360-5	11.5	653

740	Chemical Vapor Deposition Growth and Applications of Two-Dimensional Materials and Their Heterostructures. <i>Chemical Reviews</i> , 2018 , 118, 6091-6133	68.1	643
739	An Amorphous Carbon Nitride Photocatalyst with Greatly Extended Visible-Light-Responsive Range for Photocatalytic Hydrogen Generation. <i>Advanced Materials</i> , 2015 , 27, 4572-7	24	599
738	Large-scale and low-cost synthesis of single-walled carbon nanotubes by the catalytic pyrolysis of hydrocarbons. <i>Applied Physics Letters</i> , 1998 , 72, 3282-3284	3.4	591
737	Synthesis of high-quality graphene with a pre-determined number of layers. <i>Carbon</i> , 2009 , 47, 493-499	10.4	584
736	Purification of carbon nanotubes. <i>Carbon</i> , 2008 , 46, 2003-2025	10.4	570
735	Field Emission of Single-Layer Graphene Films Prepared by Electrophoretic Deposition. <i>Advanced Materials</i> , 2009 , 21, 1756-1760	24	562
734	Battery Performance and Photocatalytic Activity of Mesoporous Anatase TiO ₂ Nanospheres/Graphene Composites by Template-Free Self-Assembly. <i>Advanced Functional Materials</i> , 2011 , 21, 1717-1722	15.6	558
733	Visible light responsive nitrogen doped anatase TiO ₂ sheets with dominant {001} facets derived from TiN. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12868-9	16.4	544
732	Increasing the visible light absorption of graphitic carbon nitride (melon) photocatalysts by homogeneous self-modification with nitrogen vacancies. <i>Advanced Materials</i> , 2014 , 26, 8046-52	24	521
731	Carbon Nanotubes and Graphene for Flexible Electrochemical Energy Storage: from Materials to Devices. <i>Advanced Materials</i> , 2016 , 28, 4306-37	24	481
730	Reversible calcium alloying enables a practical room-temperature rechargeable calcium-ion battery with a high discharge voltage. <i>Nature Chemistry</i> , 2018 , 10, 667-672	17.6	477
729	A graphene foam electrode with high sulfur loading for flexible and high energy Li-S batteries. <i>Nano Energy</i> , 2015 , 11, 356-365	17.1	476
728	A flexible sulfur-graphene-polypropylene separator integrated electrode for advanced Li-S batteries. <i>Advanced Materials</i> , 2015 , 27, 641-7	24	466
727	Nitrogen Vacancy-Promoted Photocatalytic Activity of Graphitic Carbon Nitride. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 11013-11018	3.8	464
726	High sensitivity gas detection using a macroscopic three-dimensional graphene foam network. <i>Scientific Reports</i> , 2011 , 1, 166	4.9	457
725	Synergistic effects of B/N doping on the visible-light photocatalytic activity of mesoporous TiO ₂ . <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 4516-20	16.4	456
724	The Fabrication, Properties, and Uses of Graphene/Polymer Composites. <i>Macromolecular Chemistry and Physics</i> , 2012 , 213, 1060-1077	2.6	454
723	Hydrogen storage in carbon nanotubes. <i>Carbon</i> , 2001 , 39, 1447-1454	10.4	453

7 ²²	Synthesis and Electrochemical Property of Boron-Doped Mesoporous Carbon in Supercapacitor. <i>Chemistry of Materials</i> , 2008 , 20, 7195-7200	9.6	45 ¹
7 ²¹	3D Aperiodic Hierarchical Porous Graphitic Carbon Material for High-Rate Electrochemical Capacitive Energy Storage. <i>Angewandte Chemie</i> , 2008 , 120, 379-382	3.6	44 ¹
7 ²⁰	3D Interconnected Electrode Materials with Ultrahigh Areal Sulfur Loading for Li-S Batteries. <i>Advanced Materials</i> , 2016 , 28, 3374-82	24	43 ³
7 ¹⁹	Enhanced photocatalytic hydrogen evolution by prolonging the lifetime of carriers in ZnO/CdS heterostructures. <i>Chemical Communications</i> , 2009 , 3452-4	5.8	43 ³
7 ¹⁸	Incorporation of graphenes in nanostructured TiO ₂ films via molecular grafting for dye-sensitized solar cell application. <i>ACS Nano</i> , 2010 , 4, 3482-8	16.7	43 ¹
7 ¹⁷	3D Graphene-Foam-Reduced-Graphene-Oxide Hybrid Nested Hierarchical Networks for High-Performance Li-S Batteries. <i>Advanced Materials</i> , 2016 , 28, 1603-9	24	43 ⁰
7 ¹⁶	Graphene sponge for efficient and repeatable adsorption and desorption of water contaminations. <i>Journal of Materials Chemistry</i> , 2012 , 22, 20197		43 ⁰
7 ¹⁵	A flexible nanostructured sulphur/carbon nanotube cathode with high rate performance for Li-S batteries. <i>Energy and Environmental Science</i> , 2012 , 5, 8901	35.4	42 ²
7 ¹⁴	Carbon materials for Li-S batteries: Functional evolution and performance improvement. <i>Energy Storage Materials</i> , 2016 , 2, 76-106	19.4	40 ⁶
7 ¹³	Hierarchical porous nickel oxide and carbon as electrode materials for asymmetric supercapacitor. <i>Journal of Power Sources</i> , 2008 , 185, 1563-1568	8.9	39 ⁸
7 ¹²	Selective Breaking of Hydrogen Bonds of Layered Carbon Nitride for Visible Light Photocatalysis. <i>Advanced Materials</i> , 2016 , 28, 6471-7	24	39 ⁰
7 ¹¹	Nanosized anatase TiO ₂ single crystals for enhanced photocatalytic activity. <i>Chemical Communications</i> , 2010 , 46, 755-7	5.8	37 ⁵
7 ¹⁰	Sulfur crystals as a visible-light-active photocatalyst. <i>Journal of the American Chemical Society</i> , 2012 , 134, 9070-3	16.4	37 ⁰
7 ⁰⁹	Atomically Dispersed Transition Metals on Carbon Nanotubes with Ultrahigh Loading for Selective Electrochemical Carbon Dioxide Reduction. <i>Advanced Materials</i> , 2018 , 30, e1706287	24	35 ²
7 ⁰⁸	Biological technologies for the remediation of co-contaminated soil. <i>Critical Reviews in Biotechnology</i> , 2017 , 37, 1062-1076	9.4	34 ¹
7 ⁰⁷	Enhanced Photoactivity of Oxygen-Deficient Anatase TiO ₂ Sheets with Dominant {001} Facets. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 21784-21788	3.8	34 ¹
7 ⁰⁶	A red anatase TiO ₂ photocatalyst for solar energy conversion. <i>Energy and Environmental Science</i> , 2012 , 5, 9603	35.4	33 ²
7 ⁰⁵	CdS/mesoporous ZnS core-shell particles for efficient and stable photocatalytic hydrogen evolution under visible light. <i>Energy and Environmental Science</i> , 2014 , 7, 1895	35.4	33 ¹

704	Green synthesis of graphene oxide by seconds timescale water electrolytic oxidation. <i>Nature Communications</i> , 2018 , 9, 145	17.4	326
703	The global growth of graphene. <i>Nature Nanotechnology</i> , 2014 , 9, 726-30	28.7	323
702	Nitrogen-doped carbon monolith for alkaline supercapacitors and understanding nitrogen-induced redox transitions. <i>Chemistry - A European Journal</i> , 2012 , 18, 5345-51	4.8	317
701	25th anniversary article: carbon nanotube- and graphene-based transparent conductive films for optoelectronic devices. <i>Advanced Materials</i> , 2014 , 26, 1958-91	24	310
700	Hollow Nanostructures for Photocatalysis: Advantages and Challenges. <i>Advanced Materials</i> , 2019 , 31, e1801369	24	305
699	Crystal facet-dependent photocatalytic oxidation and reduction reactivity of monoclinic WO ₃ for solar energy conversion. <i>Journal of Materials Chemistry</i> , 2012 , 22, 6746		303
698	Preparation of 2D material dispersions and their applications. <i>Chemical Society Reviews</i> , 2018 , 47, 6224-6266	28.6	291
697	Air-stable and freestanding lithium alloy/graphene foil as an alternative to lithium metal anodes. <i>Nature Nanotechnology</i> , 2017 , 12, 993-999	28.7	290
696	Scalable Clean Exfoliation of High-Quality Few-Layer Black Phosphorus for a Flexible Lithium Ion Battery. <i>Advanced Materials</i> , 2016 , 28, 510-7	24	289
695	Ultra-thick graphene bulk supercapacitor electrodes for compact energy storage. <i>Energy and Environmental Science</i> , 2016 , 9, 3135-3142	35.4	284
694	Facile Hydrothermal Synthesis of Z-Scheme BiFeO/BiWO Heterojunction Photocatalyst with Enhanced Visible Light Photocatalytic Activity. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 18824-18836	19.5	284
693	Vertically Aligned Carbon Nanotubes Grown on Graphene Paper as Electrodes in Lithium-Ion Batteries and Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2011 , 1, 486-490	21.8	279
692	Vertically aligned p-type single-crystalline GaN nanorod arrays on n-type Si for heterojunction photovoltaic cells. <i>Nano Letters</i> , 2008 , 8, 4191-5	11.5	279
691	Highly stable graphene-oxide-based membranes with superior permeability. <i>Nature Communications</i> , 2018 , 9, 1486	17.4	278
690	Nanosized Li ₄ Ti ₅ O ₁₂ /graphene hybrid materials with low polarization for high rate lithium ion batteries. <i>Journal of Power Sources</i> , 2011 , 196, 8610-8617	8.9	277
689	Understanding the interactions between lithium polysulfides and N-doped graphene using density functional theory calculations. <i>Nano Energy</i> , 2016 , 25, 203-210	17.1	274
688	Large-area synthesis of high-quality and uniform monolayer WS ₂ on reusable Au foils. <i>Nature Communications</i> , 2015 , 6, 8569	17.4	273
687	Self-assembled CdS/Au/ZnO heterostructure induced by surface polar charges for efficient photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 2773	13	270

686	Tensile strength of single-walled carbon nanotubes directly measured from their macroscopic ropes. <i>Applied Physics Letters</i> , 2000 , 77, 3161-3163	3.4	265
685	Band-to-Band Visible-Light Photon Excitation and Photoactivity Induced by Homogeneous Nitrogen Doping in Layered Titanates. <i>Chemistry of Materials</i> , 2009 , 21, 1266-1274	9.6	259
684	A microporous-mesoporous carbon with graphitic structure for a high-rate stable sulfur cathode in carbonate solvent-based Li-S batteries. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 8703-10	3.6	258
683	One-Step Device Fabrication of Phosphorene and Graphene Interdigital Micro-Supercapacitors with High Energy Density. <i>ACS Nano</i> , 2017 , 11, 7284-7292	16.7	251
682	Phosphorene as a Polysulfide Immobilizer and Catalyst in High-Performance Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017 , 29, 1602734	24	249
681	Recent advances in graphene-based planar micro-supercapacitors for on-chip energy storage. <i>National Science Review</i> , 2014 , 1, 277-292	10.8	249
680	Carbon Nanotubes and Related Nanomaterials: Critical Advances and Challenges for Synthesis toward Mainstream Commercial Applications. <i>ACS Nano</i> , 2018 , 12, 11756-11784	16.7	239
679	Ligand-assisted cation-exchange engineering for high-efficiency colloidal Cs ₁ FaxPb ₃ quantum dot solar cells with reduced phase segregation. <i>Nature Energy</i> , 2020 , 5, 79-88	62.3	237
678	A review of carbon nanotube- and graphene-based flexible thin-film transistors. <i>Small</i> , 2013 , 9, 1188-2051	11	237
677	Metal-catalyst-free growth of single-walled carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2082-3	16.4	235
676	The Regulating Role of Carbon Nanotubes and Graphene in Lithium-Ion and Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2019 , 31, e1800863	24	234
675	Morphology and surface chemistry engineering toward pH-universal catalysts for hydrogen evolution at high current density. <i>Nature Communications</i> , 2019 , 10, 269	17.4	229
674	Two-Dimensional MoS Confined Co(OH) Electrocatalysts for Hydrogen Evolution in Alkaline Electrolytes. <i>ACS Nano</i> , 2018 , 12, 4565-4573	16.7	225
673	Megamerger in photocatalytic field: 2D g-C ₃ N ₄ nanosheets serve as support of 0D nanomaterials for improving photocatalytic performance. <i>Applied Catalysis B: Environmental</i> , 2019 , 240, 153-173	21.8	221
672	Visible light photocatalyst: iodine-doped mesoporous titania with a bicrystalline framework. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 20823-8	3.4	220
671	A 3D bi-functional porous N-doped carbon microtube sponge electrocatalyst for oxygen reduction and oxygen evolution reactions. <i>Energy and Environmental Science</i> , 2016 , 9, 3079-3084	35.4	212
670	Toward More Reliable Lithium-Sulfur Batteries: An All-Graphene Cathode Structure. <i>ACS Nano</i> , 2016 , 10, 8676-82	16.7	212
669	Tunable band gaps and p-type transport properties of boron-doped graphenes by controllable ion doping using reactive microwave plasma. <i>ACS Nano</i> , 2012 , 6, 1970-8	16.7	206

668	Stable photocatalytic hydrogen evolution from water over ZnO@CdS core-shell nanorods. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 8199-8205	6.7	205
667	Graphene-based materials for high-voltage and high-energy asymmetric supercapacitors. <i>Energy Storage Materials</i> , 2017 , 6, 70-97	19.4	201
666	In Situ Grown AgI/Bi ₂ O ₃ /TiO ₂ Heterojunction Photocatalysts for Visible Light Degradation of Sulfamethazine: Efficiency, Pathway, and Mechanism. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 4174-4184	8.3	200
665	Metal-Organic Frameworks (MOFs)-Derived Nitrogen-Doped Porous Carbon Anchored on Graphene with Multifunctional Effects for Lithium-Sulfur Batteries. <i>Advanced Functional Materials</i> , 2018 , 28, 1707592	15.6	198
664	Chemical vapor deposition of layered two-dimensional MoSiN materials. <i>Science</i> , 2020 , 369, 670-674	33.3	198
663	Polarized raman study of single-wall semiconducting carbon nanotubes. <i>Physical Review Letters</i> , 2000 , 85, 2617-20	7.4	196
662	Two-Dimensional Materials for Thermal Management Applications. <i>Joule</i> , 2018 , 2, 442-463	27.8	190
661	Elemental superdoping of graphene and carbon nanotubes. <i>Nature Communications</i> , 2016 , 7, 10921	17.4	190
660	Flexible layer-structured BiTe thermoelectric on a carbon nanotube scaffold. <i>Nature Materials</i> , 2019 , 18, 62-68	27	188
659	Stabilized Nanoscale Zerovalent Iron Mediated Cadmium Accumulation and Oxidative Damage of <i>Boehmeria nivea</i> (L.) Gaudich Cultivated in Cadmium Contaminated Sediments. <i>Environmental Science & Technology</i> , 2017 , 51, 11308-11316	10.3	187
658	Metal/Oxide Interface Nanostructures Generated by Surface Segregation for Electrocatalysis. <i>Nano Letters</i> , 2015 , 15, 7704-10	11.5	186
657	Nitrogen-Superdoped 3D Graphene Networks for High-Performance Supercapacitors. <i>Advanced Materials</i> , 2017 , 29, 1701677	24	186
656	Synthesis of anatase TiO ₂ rods with dominant reactive {010} facets for the photoreduction of CO ₂ to CH ₄ and use in dye-sensitized solar cells. <i>Chemical Communications</i> , 2011 , 47, 8361-3	5.8	185
655	Adsorption and capillarity of nitrogen in aggregated multi-walled carbon nanotubes. <i>Chemical Physics Letters</i> , 2001 , 345, 18-24	2.5	185
654	Repeated and controlled growth of monolayer, bilayer and few-layer hexagonal boron nitride on Pt foils. <i>ACS Nano</i> , 2013 , 7, 5199-206	16.7	182
653	Edge-controlled growth and kinetics of single-crystal graphene domains by chemical vapor deposition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20386-91	11.5	180
652	Graphitic Carbon Nitride-Based Heterojunction Photoactive Nanocomposites: Applications and Mechanism Insight. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21035-21055	9.5	179
651	Overview of the synthesis of MXenes and other ultrathin 2D transition metal carbides and nitrides. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 149-163	12	178

650	Novel boron nitride hollow nanoribbons. <i>ACS Nano</i> , 2008 , 2, 2183-91	16.7	173
649	Comparison of the rate capability of nanostructured amorphous and anatase TiO ₂ for lithium insertion using anodic TiO ₂ nanotube arrays. <i>Nanotechnology</i> , 2009 , 20, 225701	3.4	172
648	Ammonia borane destabilized by lithium hydride: an advanced on-board hydrogen storage material. <i>Advanced Materials</i> , 2008 , 20, 2756-9	24	172
647	ZnO@S@Cd Heterostructure for Effective Photocatalytic Hydrogen Generation. <i>Advanced Energy Materials</i> , 2012 , 2, 42-46	21.8	170
646	Amorphous cobalt/Boron/nickel foam as an effective catalyst for hydrogen generation from alkaline sodium borohydride solution. <i>Journal of Power Sources</i> , 2008 , 177, 17-23	8.9	169
645	Artificial Z-scheme photocatalytic system: What have been done and where to go?. <i>Coordination Chemistry Reviews</i> , 2019 , 385, 44-80	23.2	169
644	The Rechargeable Aluminum Battery: Opportunities and Challenges. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 11978-11996	16.4	168
643	Fabrication of novel magnetic MnFeO/bio-char composite and heterogeneous photo-Fenton degradation of tetracycline in near neutral pH. <i>Chemosphere</i> , 2019 , 224, 910-921	8.4	168
642	A Sulfur-Rich Copolymer@CNT Hybrid Cathode with Dual-Confinement of Polysulfides for High-Performance Lithium-Sulfur Batteries. <i>Advanced Materials</i> , 2017 , 29, 1603835	24	167
641	Hydrogen adsorption behavior of graphene above critical temperature. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 2329-2332	6.7	166
640	Switching the selectivity of the photoreduction reaction of carbon dioxide by controlling the band structure of a g-C ₃ N ₄ photocatalyst. <i>Chemical Communications</i> , 2014 , 50, 10837-40	5.8	165
639	Hollow Anatase TiO ₂ Single Crystals and Mesocrystals with Dominant {101} Facets for Improved Photocatalysis Activity and Tuned Reaction Preference. <i>ACS Catalysis</i> , 2012 , 2, 1854-1859	13.1	162
638	Superhydrophobic graphene foams. <i>Small</i> , 2013 , 9, 75-80	11	161
637	Mass production and industrial applications of graphene materials. <i>National Science Review</i> , 2018 , 5, 90-101	10.8	158
636	Hydrogen uptake in vapor-grown carbon nanofibers. <i>Carbon</i> , 1999 , 37, 1649-1652	10.4	156
635	Carbon-Based Fibers for Advanced Electrochemical Energy Storage Devices. <i>Chemical Reviews</i> , 2020 , 120, 2811-2878	68.1	156
634	Efficient growth of high-quality graphene films on Cu foils by ambient pressure chemical vapor deposition. <i>Applied Physics Letters</i> , 2010 , 97, 183109	3.4	155
633	Strategies towards Low-Cost Dual-Ion Batteries with High Performance. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 3802-3832	16.4	155

632	Hydrogen storage in carbon nanotubes revisited. <i>Carbon</i> , 2010 , 48, 452-455	10.4	154
631	Amorphous TiO(2) nanotube arrays for low-temperature oxygen sensors. <i>Nanotechnology</i> , 2008 , 19, 4055-4064	3.4	154
630	Synthesis and upconversion luminescence of N-doped graphene quantum dots. <i>Applied Physics Letters</i> , 2012 , 101, 103107	3.4	153
629	Scalable Fabrication of Photochemically Reduced Graphene-Based Monolithic Micro-Supercapacitors with Superior Energy and Power Densities. <i>ACS Nano</i> , 2017 , 11, 4283-4291	16.7	152
628	An Unusual Strong Visible-Light Absorption Band in Red Anatase TiO Photocatalyst Induced by Atomic Hydrogen-Occupied Oxygen Vacancies. <i>Advanced Materials</i> , 2018 , 30, 1704479	24	152
627	Enhanced Photocatalytic H ₂ Production in Core-Shell Engineered Rutile TiO ₂ . <i>Advanced Materials</i> , 2016 , 28, 5850-6	24	152
626	Scalable non-liquid-crystal spinning of locally aligned graphene fibers for high-performance wearable supercapacitors. <i>Nano Energy</i> , 2015 , 15, 642-653	17.1	151
625	Hydrogen adsorption/desorption behavior of multi-walled carbon nanotubes with different diameters. <i>Carbon</i> , 2003 , 41, 2471-2476	10.4	151
624	Lithium-Catalyzed Dehydrogenation of Ammonia Borane within Mesoporous Carbon Framework for Chemical Hydrogen Storage. <i>Advanced Functional Materials</i> , 2009 , 19, 265-271	15.6	148
623	A nanosized Fe ₂ O ₃ decorated single-walled carbon nanotube membrane as a high-performance flexible anode for lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 17942		143
622	Electrochemical interfacial capacitance in multilayer graphene sheets: Dependence on number of stacking layers. <i>Electrochemistry Communications</i> , 2009 , 11, 1729-1732	5.1	143
621	Hydrogen generation from sodium borohydride solution using a ruthenium supported on graphite catalyst. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3023-3028	6.7	143
620	Controlled electrochemical charge injection to maximize the energy density of supercapacitors. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 3722-5	16.4	142
619	Graphene: a promising 2D material for electrochemical energy storage. <i>Science Bulletin</i> , 2017 , 62, 724-740	10.6	140
618	Single-wall carbon nanotube network enabled ultrahigh sulfur-content electrodes for high-performance lithium-sulfur batteries. <i>Nano Energy</i> , 2017 , 42, 205-214	17.1	140
617	Superhigh Electromagnetic Interference Shielding of Ultrathin Aligned Pristine Graphene Nanosheets Film. <i>Advanced Materials</i> , 2020 , 32, e1907411	24	140
616	Purification of Single-Wall Carbon Nanotubes by Electrochemical Oxidation. <i>Chemistry of Materials</i> , 2004 , 16, 5744-5750	9.6	137
615	Rosin-enabled ultraclean and damage-free transfer of graphene for large-area flexible organic light-emitting diodes. <i>Nature Communications</i> , 2017 , 8, 14560	17.4	135

614	Effect of pore packing defects in 2-d ordered mesoporous carbons on ionic transport. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 8570-5	3.4	135
613	Key Aspects of Lithium Metal Anodes for Lithium Metal Batteries. <i>Small</i> , 2019 , 15, e1900687	11	134
612	Polar interface-induced improvement in high photocatalytic hydrogen evolution over ZnO α s heterostructures. <i>Energy and Environmental Science</i> , 2011 , 4, 3976	35.4	133
611	Polysulfide immobilization and conversion on a conductive polar MoC@MoO x material for lithium-sulfur batteries. <i>Energy Storage Materials</i> , 2018 , 10, 56-61	19.4	132
610	Positive temperature coefficient effect in multiwalled carbon nanotube/high-density polyethylene composites. <i>Applied Physics Letters</i> , 2005 , 86, 062112	3.4	131
609	Simultaneous Production and Functionalization of Boron Nitride Nanosheets by Sugar-Assisted Mechanochemical Exfoliation. <i>Advanced Materials</i> , 2019 , 31, e1804810	24	130
608	Ultrahigh-voltage integrated micro-supercapacitors with designable shapes and superior flexibility. <i>Energy and Environmental Science</i> , 2019 , 12, 1534-1541	35.4	129
607	Efficient synthesis of graphene nanoribbons sonochemically cut from graphene sheets. <i>Nano Research</i> , 2010 , 3, 16-22	10	127
606	CuS Microspheres with Tunable Interlayer Space and Micropore as a High-Rate and Long-Life Anode for Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1800930	21.8	127
605	Unique physicochemical properties of two-dimensional light absorbers facilitating photocatalysis. <i>Chemical Society Reviews</i> , 2018 , 47, 6410-6444	58.5	126
604	Swelling and mechanical behaviors of carbon nanotube/poly(vinyl alcohol) hybrid hydrogels. <i>Materials Letters</i> , 2007 , 61, 1704-1706	3.3	126
603	Morphology, diameter distribution and Raman scattering measurements of double-walled carbon nanotubes synthesized by catalytic decomposition of methane. <i>Chemical Physics Letters</i> , 2002 , 359, 196-202	2.5	125
602	Monolithic Fe ₂ O ₃ /graphene hybrid for highly efficient lithium storage and arsenic removal. <i>Carbon</i> , 2014 , 67, 500-507	10.4	124
601	Semiconductor-based photocatalysts for photocatalytic and photoelectrochemical water splitting: will we stop with photocorrosion?. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 2286-2322	13	123
600	Kinetically Enhanced Electrochemical Redox of Polysulfides on Polymeric Carbon Nitrides for Improved Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 25193-201	9.5	123
599	A Self-Standing and Flexible Electrode of Li ₄ Ti ₅ O ₁₂ Nanosheets with a N-Doped Carbon Coating for High Rate Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2013 , 23, 5429-5435	15.6	122
598	Total color difference for rapid and accurate identification of graphene. <i>ACS Nano</i> , 2008 , 2, 1625-33	16.7	121
597	All-solid-state flexible planar lithium ion micro-capacitors. <i>Energy and Environmental Science</i> , 2018 , 11, 2001-2009	35.4	121

596	Electron field emission of a nitrogen-doped TiO(2) nanotube array. <i>Nanotechnology</i> , 2008 , 19, 025606	3.4	120
595	Purification of single-walled carbon nanotubes synthesized by the hydrogen arc-discharge method. <i>Journal of Materials Research</i> , 2001 , 16, 2526-2529	2.5	120
594	A highly reversible Co3S4 microsphere cathode material for aluminum-ion batteries. <i>Nano Energy</i> , 2019 , 56, 100-108	17.1	120
593	Tailoring the thermal and electrical transport properties of graphene films by grain size engineering. <i>Nature Communications</i> , 2017 , 8, 14486	17.4	119
592	Iodine doped anatase TiO2 photocatalyst with ultra-long visible light response: correlation between geometric/electronic structures and mechanisms. <i>Journal of Materials Chemistry</i> , 2009 , 19, 2822		119
591	Carbon-Based Metal-Free Catalysts for Energy Storage and Environmental Remediation. <i>Advanced Materials</i> , 2019 , 31, e1806128	24	118
590	Bulk synthesis of large diameter semiconducting single-walled carbon nanotubes by oxygen-assisted floating catalyst chemical vapor deposition. <i>Journal of the American Chemical Society</i> , 2011 , 133, 5232-5	16.4	118
589	Reversible hydrogen storage in LiBH4 destabilized by milling with Al. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 89, 963-966	2.6	118
588	Selective heterogeneous nucleation and growth of size-controlled metal nanoparticles on carbon nanotubes in solution. <i>Chemistry - A European Journal</i> , 2006 , 12, 2542-9	4.8	116
587	A sandwich structure of graphene and nickel oxide with excellent supercapacitive performance. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9014		115
586	Stabilizing sulfur cathodes using nitrogen-doped graphene as a chemical immobilizer for Li S batteries. <i>Carbon</i> , 2016 , 108, 120-126	10.4	115
585	Heteroatom-Modulated Switching of Photocatalytic Hydrogen and Oxygen Evolution Preferences of Anatase TiO2 Microspheres. <i>Advanced Functional Materials</i> , 2012 , 22, 3233-3238	15.6	114
584	Metallic and carbon nanotube-catalyzed coupling of hydrogenation in magnesium. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15650-4	16.4	114
583	An aqueous dissolved polysulfide cathode for lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2014 , 7, 3307-3312	35.4	113
582	Effects of calcium at toxic concentrations of cadmium in plants. <i>Planta</i> , 2017 , 245, 863-873	4.7	111
581	Synergistic Effect of Aligned Graphene Nanosheets in Graphene Foam for High-Performance Thermally Conductive Composites. <i>Advanced Materials</i> , 2019 , 31, e1900199	24	111
580	An Aluminum-Sulfur Battery with a Fast Kinetic Response. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 1898-1902	16.4	111
579	Ultrahigh-performance transparent conductive films of carbon-welded isolated single-wall carbon nanotubes. <i>Science Advances</i> , 2018 , 4, eaap9264	14.3	111

578	Importance of oxygen in the metal-free catalytic growth of single-walled carbon nanotubes from SiO(x) by a vapor-solid-solid mechanism. <i>Journal of the American Chemical Society</i> , 2011 , 133, 197-9	16.4	110
577	Morphology, thermal stability, and dynamic mechanical properties of atactic polypropylene/carbon nanotube composites. <i>Journal of Applied Polymer Science</i> , 2005 , 98, 1087-1091	2.9	110
576	Efficient Promotion of Anatase TiO ₂ Photocatalysis via Bifunctional Surface-Terminating TiO ₂ Structures. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 12317-12324	3.8	109
575	Remediation of contaminated soils by biotechnology with nanomaterials: bio-behavior, applications, and perspectives. <i>Critical Reviews in Biotechnology</i> , 2018 , 38, 455-468	9.4	108
574	Preparation and electrochemical property of Fe ₂ O ₃ nanoparticles-filled carbon nanotubes. <i>Chemical Communications</i> , 2010 , 46, 8576-8	5.8	108
573	Synthesis of rutileanatase core-shell structured TiO ₂ for photocatalysis. <i>Journal of Materials Chemistry</i> , 2009 , 19, 6590		108
572	The growth of multi-walled carbon nanotubes with different morphologies on carbon fibers. <i>Carbon</i> , 2005 , 43, 663-665	10.4	106
571	Arbitrary-Shaped Graphene-Based Planar Sandwich Supercapacitors on One Substrate with Enhanced Flexibility and Integration. <i>ACS Nano</i> , 2017 , 11, 2171-2179	16.7	103
570	Tantalum (oxy)nitride based photoanodes for solar-driven water oxidation. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2783-2800	13	103
569	Template-free synthesis of Ta ₃ N ₅ nanorod arrays for efficient photoelectrochemical water splitting. <i>Chemical Communications</i> , 2013 , 49, 3019-21	5.8	103
568	Sulfur doped anatase TiO ₂ single crystals with a high percentage of {0 0 1} facets. <i>Journal of Colloid and Interface Science</i> , 2010 , 349, 477-83	9.3	103
567	Effects of oxygen vacancies on the electrochemical performance of tin oxide. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1536-1539	13	101
566	TiO ₂ films with oriented anatase {001} facets and their photoelectrochemical behavior as CdS nanoparticle sensitized photoanodes. <i>Journal of Materials Chemistry</i> , 2011 , 21, 869-873		101
565	The morphology and thermal properties of multi-walled carbon nanotube and poly(hydroxybutyrate-co-hydroxyvalerate) composite. <i>Polymer International</i> , 2004 , 53, 1479-1484	3.3	101
564	On the True Photoreactivity Order of {001}, {010}, and {101} Facets of Anatase TiO ₂ Crystals. <i>Angewandte Chemie</i> , 2011 , 123, 2181-2185	3.6	100
563	A general single-source route for the preparation of hollow nanoporous metal oxide structures. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 7048-51	16.4	99
562	Secondary-Atom-Assisted Synthesis of Single Iron Atoms Anchored on N-Doped Carbon Nanowires for Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2019 , 9, 5929-5934	13.1	98
561	Free-standing integrated cathode derived from 3D graphene/carbon nanotube aerogels serving as binder-free sulfur host and interlayer for ultrahigh volumetric-energy-density lithium sulfur batteries. <i>Nano Energy</i> , 2019 , 60, 743-751	17.1	98

560	The role of crystal phase in determining photocatalytic activity of nitrogen doped TiO ₂ . <i>Journal of Colloid and Interface Science</i> , 2009 , 329, 331-8	9.3	98
559	Effects of carbon on hydrogen storage performances of hydrides. <i>Journal of Materials Chemistry</i> , 2010 , 20, 5390		97
558	Ultrathin 2D Transition Metal Carbides for Ultrafast Pulsed Fiber Lasers. <i>ACS Photonics</i> , 2018 , 5, 1808-1866		96
557	High Reversible Lithium Storage Capacity and Structural Changes of Fe ₂ O ₃ Nanoparticles Confined inside Carbon Nanotubes. <i>Advanced Energy Materials</i> , 2016 , 6, 1501755	21.8	95
556	Anatase TiO ₂ crystal facet growth: mechanistic role of hydrofluoric acid and photoelectrocatalytic activity. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 2472-8	9.5	95
555	Electrochemical Hydrogen Storage Behavior of Ropes of Aligned Single-Walled Carbon Nanotubes. <i>Nano Letters</i> , 2002 , 2, 503-506	11.5	95
554	High-performance dual-gate carbon nanotube FETs with 40-nm gate length. <i>IEEE Electron Device Letters</i> , 2005 , 26, 823-825	4.4	93
553	Ultrafast Growth of High-Quality Monolayer WSe on Au. <i>Advanced Materials</i> , 2017 , 29, 1700990	24	92
552	An Anion-Tuned Solid Electrolyte Interphase with Fast Ion Transfer Kinetics for Stable Lithium Anodes. <i>Advanced Energy Materials</i> , 2020 , 10, 1903843	21.8	92
551	Metal sulfide/MOF-based composites as visible-light-driven photocatalysts for enhanced hydrogen production from water splitting. <i>Coordination Chemistry Reviews</i> , 2020 , 409, 213220	23.2	92
550	Co ₃ O ₄ mesoporous nanostructures@graphene membrane as an integrated anode for long-life lithium-ion batteries. <i>Journal of Power Sources</i> , 2014 , 255, 52-58	8.9	92
549	ZnS branched architectures as optoelectronic devices and field emitters. <i>Advanced Materials</i> , 2010 , 22, 2376-80	24	92
548	Lithiation of silicon nanoparticles confined in carbon nanotubes. <i>ACS Nano</i> , 2015 , 9, 5063-71	16.7	91
547	Frequency response characteristic of single-walled carbon nanotubes as supercapacitor electrode material. <i>Applied Physics Letters</i> , 2008 , 92, 143108	3.4	91
546	Aligned Titania Nanotubes as an Intercalation Anode Material for Hybrid Electrochemical Energy Storage. <i>Advanced Functional Materials</i> , 2008 , 18, 3787-3793	15.6	91
545	Electrochemical performance of pyrolytic carbon-coated natural graphite spheres. <i>Carbon</i> , 2006 , 44, 2212-2218	10.4	91
544	Visible-light-active elemental photocatalysts. <i>ChemPhysChem</i> , 2013 , 14, 885-92	3.2	90
543	Mesopore-Aspect-Ratio Dependence of Ion Transport in Rodtype Ordered Mesoporous Carbon. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 9950-9955	3.8	90

542	Strongly Coupled High-Quality Graphene/2D Superconducting MoC Vertical Heterostructures with Aligned Orientation. <i>ACS Nano</i> , 2017 , 11, 5906-5914	16.7	89
541	A selectively exposed crystal facet-engineered TiO ₂ thin film photoanode for the higher performance of the photoelectrochemical water splitting reaction. <i>Energy and Environmental Science</i> , 2015 , 8, 3646-3653	35.4	89
540	Increasing the electrical conductivity of carbon nanotube/polymer composites by using weak nanotube/polymer interactions. <i>Carbon</i> , 2010 , 48, 3551-3558	10.4	88
539	Efficient and scalable synthesis of highly aligned and compact two-dimensional nanosheet films with record performances. <i>Nature Communications</i> , 2018 , 9, 3484	17.4	88
538	Repeated growth-etching-regrowth for large-area defect-free single-crystal graphene by chemical vapor deposition. <i>ACS Nano</i> , 2014 , 8, 12806-13	16.7	87
537	Improved capacitance of SBA-15 templated mesoporous carbons after modification with nitric acid oxidation. <i>New Carbon Materials</i> , 2007 , 22, 307-314	4.4	87
536	Visible-light-responsive Rhombohedral boron photocatalysts. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 6242-5	16.4	86
535	Thermodynamically tuning LiBH ₄ by fluorine anion doping for hydrogen storage: A density functional study. <i>Chemical Physics Letters</i> , 2008 , 450, 318-321	2.5	86
534	Nitrogen-doped titania nanosheets towards visible light response. <i>Chemical Communications</i> , 2009 , 1383-5	3.5	85
533	Field emission from AlN nanorod array. <i>Applied Physics Letters</i> , 2005 , 86, 153104	3.4	84
532	Carbon nanotubes for clean energy applications. <i>Journal Physics D: Applied Physics</i> , 2005 , 38, R231-R252	3	84
531	Bulk growth of mono- to few-layer graphene on nickel particles by chemical vapor deposition from methane. <i>Carbon</i> , 2010 , 48, 3543-3550	10.4	83
530	In-situ self-assembly construction of hollow tubular g-CN isotype heterojunction for enhanced visible-light photocatalysis: Experiments and theories. <i>Journal of Hazardous Materials</i> , 2021 , 401, 123355	12.8	83
529	An array of Eiffel-tower-shape AlN nanotips and its field emission properties. <i>Applied Physics Letters</i> , 2005 , 86, 233104	3.4	82
528	Effects of SWNT and metallic catalyst on hydrogen absorption/desorption performance of MgH ₂ . <i>Journal of Physical Chemistry B</i> , 2005 , 109, 22217-21	3.4	82
527	Surface and interference coenhanced Raman scattering of graphene. <i>ACS Nano</i> , 2009 , 3, 933-9	16.7	81
526	Facile and Controlled Synthesis of 3D Nanorods-Based Urchinlike and Nanosheets-Based Flowerlike Cobalt Basic Salt Nanostructures. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 3848-3852	3.8	81
525	High-quality, highly concentrated semiconducting single-wall carbon nanotubes for use in field effect transistors and biosensors. <i>ACS Nano</i> , 2013 , 7, 6831-9	16.7	80

524	Mg-based nanocomposites with high capacity and fast kinetics for hydrogen storage. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 11697-703	3.4	80
523	The Chemistry and Promising Applications of Graphene and Porous Graphene Materials. <i>Advanced Functional Materials</i> , 2020 , 30, 1909035	15.6	79
522	Exploration of the nature of active Ti species in metallic Ti-doped NaAlH ₄ . <i>Journal of Physical Chemistry B</i> , 2005 , 109, 20131-6	3.4	79
521	Comprehensive evaluation of the cytotoxicity of CdSe/ZnS quantum dots in <i>Phanerochaete chrysosporium</i> by cellular uptake and oxidative stress. <i>Environmental Science: Nano</i> , 2017 , 4, 2018-2029	7.1	78
520	Cadmium-containing quantum dots: properties, applications, and toxicity. <i>Applied Microbiology and Biotechnology</i> , 2017 , 101, 2713-2733	5.7	77
519	Carbon nanotube encapsulated in nitrogen and phosphorus co-doped carbon as a bifunctional electrocatalyst for oxygen reduction and evolution reactions. <i>Carbon</i> , 2018 , 139, 156-163	10.4	77
518	New insight into the solid electrolyte interphase with use of a focused ion beam. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 22205-11	3.4	77
517	Unique Domain Structure of Two-Dimensional EMo ₂ C Superconducting Crystals. <i>Nano Letters</i> , 2016 , 16, 4243-50	11.5	76
516	NiPS Nanosheet-Graphene Composites as Highly Efficient Electrocatalysts for Oxygen Evolution Reaction. <i>ACS Nano</i> , 2018 , 12, 5297-5305	16.7	76
515	Tuning the electrical and optical properties of graphene by ozone treatment for patterning monolithic transparent electrodes. <i>ACS Nano</i> , 2013 , 7, 4233-41	16.7	76
514	Tension-tension fatigue behavior of unidirectional single-walled carbon nanotube reinforced epoxy composite. <i>Carbon</i> , 2003 , 41, 2177-2179	10.4	76
513	High-rate lithium storage of anatase TiO ₂ crystals doped with both nitrogen and sulfur. <i>Chemical Communications</i> , 2013 , 49, 3461-3	5.8	75
512	Free-standing highly conductive transparent ultrathin single-walled carbon nanotube films. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16581-6	16.4	75
511	Diameter-selective growth of single-walled carbon nanotubes with high quality by floating catalyst method. <i>ACS Nano</i> , 2008 , 2, 1722-8	16.7	75
510	Synthesis and dye separation performance of ferromagnetic hierarchical porous carbon. <i>Carbon</i> , 2008 , 46, 1593-1599	10.4	75
509	Surface modification of single-walled carbon nanotubes with polyethylene via in situ Ziegler-Natta polymerization. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 3697-3700	2.9	75
508	Controlled Vapor-Solid Deposition of Millimeter-Size Single Crystal 2D Bi ₂ O ₂ Se for High-Performance Phototransistors. <i>Advanced Functional Materials</i> , 2019 , 29, 1807979	15.6	74
507	Functional anion concept: effect of fluorine anion on hydrogen storage of sodium alanate. <i>Physical Chemistry Chemical Physics</i> , 2007 , 9, 1499-502	3.6	74

506	Armoring Graphene Cathodes for High-Rate and Long-Life Lithium Ion Supercapacitors. <i>Advanced Energy Materials</i> , 2016 , 6, 1502064	21.8	73
505	Hydrogen sorption kinetics of MgH ₂ catalyzed with NbF ₅ . <i>Journal of Alloys and Compounds</i> , 2008 , 453, 138-142	5.7	73
504	N-doped carbon nanotubes containing a high concentration of single iron atoms for efficient oxygen reduction. <i>NPG Asia Materials</i> , 2018 , 10, e461-e461	10.3	72
503	Growth velocity and direct length-sorted growth of short single-walled carbon nanotubes by a metal-catalyst-free chemical vapor deposition process. <i>ACS Nano</i> , 2009 , 3, 3421-30	16.7	72
502	Charge delivery goes the distance. <i>Science</i> , 2017 , 356, 582-583	33.3	71
501	A flexible cotton-derived carbon sponge for high-performance capacitive deionization. <i>Carbon</i> , 2016 , 101, 1-8	10.4	71
500	Homogeneous and Fast Ion Conduction of PEO-Based Solid-State Electrolyte at Low Temperature. <i>Advanced Functional Materials</i> , 2020 , 30, 2007172	15.6	71
499	Greatly Enhanced Electronic Conduction and Lithium Storage of Faceted TiO ₂ Crystals Supported on Metallic Substrates by Tuning Crystallographic Orientation of TiO ₂ . <i>Advanced Materials</i> , 2015 , 27, 3507-12	24	70
498	Critical review of recent progress of flexible perovskite solar cells. <i>Materials Today</i> , 2020 , 39, 66-88	21.8	70
497	Selective deposition of redox co-catalyst(s) to improve the photocatalytic activity of single-domain ferroelectric PbTiO ₃ nanoplates. <i>Chemical Communications</i> , 2014 , 50, 10416-9	5.8	70
496	Carbon nanotubes: controlled growth and application. <i>Materials Today</i> , 2013 , 16, 19-28	21.8	70
495	Hydrogen sorption kinetics of MgH ₂ catalyzed with titanium compounds. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3046-3050	6.7	70
494	Structure-related electrochemical performance of organosulfur compounds for lithium-sulfur batteries. <i>Energy and Environmental Science</i> , 2020 , 13, 1076-1095	35.4	69
493	Synthesis and Photoelectrochemical Property of Urchin-like Zn/ZnO Core-Shell Structures. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 11035-11040	3.8	69
492	The fabrication of a carbon nanotube transparent conductive film by electrophoretic deposition and hot-pressing transfer. <i>Nanotechnology</i> , 2009 , 20, 235707	3.4	69
491	Thermal expansion of a composite of single-walled carbon nanotubes and nanocrystalline aluminum. <i>Carbon</i> , 2004 , 42, 3260-3262	10.4	69
490	Unsaturated Single Atoms on Monolayer Transition Metal Dichalcogenides for Ultrafast Hydrogen Evolution. <i>ACS Nano</i> , 2020 , 14, 767-776	16.7	69
489	Nanosize SnO ₂ Confined in the porous shells of carbon cages for kinetically efficient and long-term lithium storage. <i>Nanoscale</i> , 2013 , 5, 1576-82	7.7	68

488	Chitosan-wrapped gold nanoparticles for hydrogen-bonding recognition and colorimetric determination of the antibiotic kanamycin. <i>Mikrochimica Acta</i> , 2017 , 184, 2097-2105	5.8	67
487	Facile fabrication of anatase TiO ₂ microspheres on solid substrates and surface crystal facet transformation from {001} to {101}. <i>Chemistry - A European Journal</i> , 2011 , 17, 5949-57	4.8	67
486	Improved Reversible Dehydrogenation of Lithium Borohydride by Milling with As-Prepared Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17023-17029	3.8	67
485	High-purity single-wall carbon nanotubes synthesized from coal by arc discharge. <i>Carbon</i> , 2003 , 41, 2170-2173	10.7	67
484	Preparation, morphology, and microstructure of diameter-controllable vapor-grown carbon nanofibers. <i>Journal of Materials Research</i> , 1998 , 13, 2342-2346	2.5	67
483	Controlling reduction degree of graphene oxide membranes for improved water permeance. <i>Science Bulletin</i> , 2018 , 63, 788-794	10.6	67
482	Selective Chemical Epitaxial Growth of TiO ₂ Islands on Ferroelectric PbTiO ₃ Crystals to Boost Photocatalytic Activity. <i>Joule</i> , 2018 , 2, 1095-1107	27.8	66
481	Preparation of metallic single-wall carbon nanotubes by selective etching. <i>ACS Nano</i> , 2014 , 8, 7156-62	16.7	66
480	Drastically enhanced photocatalytic activity in nitrogen doped mesoporous TiO ₂ with abundant surface states. <i>Journal of Colloid and Interface Science</i> , 2009 , 334, 171-5	9.3	66
479	A flexible ultrasensitive optoelectronic sensor array for neuromorphic vision systems. <i>Nature Communications</i> , 2021 , 12, 1798	17.4	66
478	High temperature selective growth of single-walled carbon nanotubes with a narrow chirality distribution from a CoPt bimetallic catalyst. <i>Chemical Communications</i> , 2012 , 48, 2409-11	5.8	65
477	Edge phonon state of mono- and few-layer graphene nanoribbons observed by surface and interference co-enhanced Raman spectroscopy. <i>Physical Review B</i> , 2010 , 81,	3.3	65
476	Micro-mechanical properties and morphological observation on fracture surfaces of carbon nanotube composites pre-treated at different temperatures. <i>Composites Science and Technology</i> , 2003 , 63, 1161-1164	8.6	65
475	Hierarchically porous Fe-N-doped carbon nanotubes as efficient electrocatalyst for oxygen reduction. <i>Carbon</i> , 2016 , 109, 632-639	10.4	64
474	Hollow carbon cage with nanocapsules of graphitic shell/nickel core as an anode material for high rate lithium ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 11252		64
473	Synthesis of different magnetic carbon nanostructures by the pyrolysis of ferrocene at different sublimation temperatures. <i>Carbon</i> , 2008 , 46, 1892-1902	10.4	63
472	Structure and thermal expansion of multi-walled carbon nanotubes before and after high temperature treatment. <i>Journal Physics D: Applied Physics</i> , 2005 , 38, 4302-4307	3	63
471	Growth of semiconducting single-wall carbon nanotubes with a narrow band-gap distribution. <i>Nature Communications</i> , 2016 , 7, 11160	17.4	62

470	TiO ₂ /graphene sandwich paper as an anisotropic electrode for high rate lithium ion batteries. <i>Nanoscale</i> , 2013 , 5, 7780-4	7.7	62
469	Interstitial-boron solution strengthened WB _{3+x} . <i>Applied Physics Letters</i> , 2013 , 103, 171903	3.4	62
468	Crystallographic tailoring of graphene by nonmetal SiO(x) nanoparticles. <i>Journal of the American Chemical Society</i> , 2009 , 131, 13934-6	16.4	62
467	The examination of graphene oxide for rechargeable lithium storage as a novel cathode material. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 3607	13	61
466	A LiF Nanoparticle-Modified Graphene Electrode for High-Power and High-Energy Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2012 , 22, 3290-3297	15.6	60
465	Synthesis and characterization of double-walled carbon nanotubes from multi-walled carbon nanotubes by hydrogen-arc discharge. <i>Carbon</i> , 2005 , 43, 623-629	10.4	60
464	Magnetotransport Properties in High-Quality Ultrathin Two-Dimensional Superconducting Mo ₂ C Crystals. <i>ACS Nano</i> , 2016 , 10, 4504-10	16.7	60
463	Controlled Growth of Semiconducting and Metallic Single-Wall Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2016 , 138, 6690-8	16.4	60
462	Synthesis and photoluminescence of tetrapod ZnO nanostructures. <i>Chemical Physics Letters</i> , 2007 , 434, 301-305	2.5	59
461	Urchin-like nano/micro hybrid anode materials for lithium ion battery. <i>Carbon</i> , 2006 , 44, 2778-2784	10.4	59
460	Influence of ferrocene/benzene mole ratio on the synthesis of carbon nanostructures. <i>Chemical Physics Letters</i> , 2003 , 376, 83-89	2.5	59
459	Van der Waals interactions between two parallel infinitely long single-walled nanotubes. <i>Chemical Physics Letters</i> , 2005 , 403, 343-346	2.5	59
458	Efficient and stable photocatalytic H ₂ evolution from water splitting by (Cd _{0.8} Zn _{0.2})S nanorods. <i>Electrochemistry Communications</i> , 2009 , 11, 1174-1178	5.1	58
457	The effect of sulfur on the structure of carbon nanotubes produced by a floating catalyst method. <i>Journal of Nanoscience and Nanotechnology</i> , 2006 , 6, 1339-45	1.3	58
456	Tween 80 surfactant-enhanced bioremediation: toward a solution to the soil contamination by hydrophobic organic compounds. <i>Critical Reviews in Biotechnology</i> , 2018 , 38, 17-30	9.4	57
455	Effects of edge on graphene plasmons as revealed by infrared nanoimaging. <i>Light: Science and Applications</i> , 2017 , 6, e16204	16.7	56
454	Reduced graphene oxide with a highly restored π -conjugated structure for inkjet printing and its use in all-carbon transistors. <i>Nano Research</i> , 2013 , 6, 842-852	10	56
453	Localized polyselenides in a graphene-coated polymer separator for high rate and ultralong life lithium-selenium batteries. <i>Chemical Communications</i> , 2015 , 51, 3667-70	5.8	56

- 452 Triangle defect states of hexagonal boron nitride atomic layer: Density functional theory calculations. *Physical Review B*, **2010**, 81, 3-3 56
- 451 Improving hydrogen sorption kinetics of MgH₂ by mechanical milling with TiF₃. *Journal of Alloys and Compounds*, **2007**, 432, L1-L4 5-7 56
- 450 Volumetric hydrogen storage in single-walled carbon nanotubes. *Applied Physics Letters*, **2002**, 80, 2389-2391 56
- 449 Bulk Storage Capacity of Hydrogen in Purified Multiwalled Carbon Nanotubes. *Journal of Physical Chemistry B*, **2002**, 106, 963-966 3-4 56
- 448 Computational design and property predictions for two-dimensional nanostructures. *Materials Today*, **2018**, 21, 391-418 21.8 55
- 447 Graphitization Behavior of Wood Ceramics and Bamboo Ceramics as Determined by X-Ray Diffraction. *Journal of Porous Materials*, **1999**, 6, 233-237 2-4 55
- 446 Direct synthesis of carbon nanotubes decorated with size-controllable Fe nanoparticles encapsulated by graphitic layers. *Carbon*, **2008**, 46, 1417-1423 10.4 54
- 445 Microwave Electromagnetic Characteristics of a Microcoiled Carbon Fibers/paraffin Wax Composite in Ku Band. *Journal of Materials Research*, **2002**, 17, 1232-1236 2-5 54
- 444 The doping of reduced graphene oxide with nitrogen and its effect on the quenching of the material's photoluminescence. *Carbon*, **2012**, 50, 5286-5291 10.4 53
- 443 Nonstoichiometric rutile TiO₂ photoelectrodes for improved photoelectrochemical water splitting. *Chemical Communications*, **2013**, 49, 6191-3 5.8 53
- 442 Intercalated architecture of MAZ family layered van der Waals materials with emerging topological, magnetic and superconducting properties. *Nature Communications*, **2021**, 12, 2361 17.4 53
- 441 Quantitative Analysis of Temperature Dependence of Raman shift of monolayer WS₂. *Scientific Reports*, **2016**, 6, 32236 4-9 52
- 440 Semiconducting properties of cup-stacked carbon nanotubes. *Carbon*, **2009**, 47, 731-736 10.4 52
- 439 The role of NH₃ atmosphere in preparing nitrogen-doped TiO₂ by mechanochemical reaction. *Journal of Solid State Chemistry*, **2006**, 179, 331-335 3-3 52
- 438 Structure and hydrogen storage property of ball-milled LiNH₂/MgH₂LiNH₂/MgH₂ mixture. *International Journal of Hydrogen Energy*, **2006**, 31, 1236-1240 6-7 52
- 437 A TEM study of microstructure of carbon fiber/polycarbosilane-derived SiC composites. *Carbon*, **1999**, 37, 2057-2062 10.4 52
- 436 A nitrogen-doped mesoporous carbon containing an embedded network of carbon nanotubes as a highly efficient catalyst for the oxygen reduction reaction. *Nanoscale*, **2015**, 7, 19201-6 7-7 51
- 435 An integrated electrode/separator with nitrogen and nickel functionalized carbon hybrids for advanced lithium/polysulfide batteries. *Carbon*, **2016**, 109, 719-726 10.4 51

434	Crystallinity-dependent substitutional nitrogen doping in ZnO and its improved visible light photocatalytic activity. <i>Journal of Colloid and Interface Science</i> , 2013 , 400, 18-23	9.3	51
433	High-throughput production of cheap mineral-based two-dimensional electrocatalysts for high-current-density hydrogen evolution. <i>Nature Communications</i> , 2020 , 11, 3724	17.4	51
432	Strategies for Modifying TiO ₂ Based Electron Transport Layers to Boost Perovskite Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 4586-4618	8.3	51
431	Preparation of single-crystal β -MnO ₂ nanorods and nanoneedles from aqueous solution. <i>Journal of Alloys and Compounds</i> , 2005 , 397, 282-285	5.7	50
430	Mass production of 2D materials by intermediate-assisted grinding exfoliation. <i>National Science Review</i> , 2020 , 7, 324-332	10.8	50
429	Vertical Chemical Vapor Deposition Growth of Highly Uniform 2D Transition Metal Dichalcogenides. <i>ACS Nano</i> , 2020 , 14, 4646-4653	16.7	49
428	Electrochemical DNA sensing strategy based on strengthening electronic conduction and a signal amplifier carrier of nanoAu/MCN composited nanomaterials for sensitive lead detection. <i>Environmental Science: Nano</i> , 2016 , 3, 1504-1509	7.1	48
427	Synthesis of mesoporous single crystal rutile TiO ₂ with improved photocatalytic and photoelectrochemical activities. <i>Chemical Communications</i> , 2013 , 49, 11770-2	5.8	48
426	3D Aperiodic Hierarchical Porous Graphitic Carbon Material for High-Rate Electrochemical Capacitive Energy Storage. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 1525-1525	16.4	48
425	Micro-hardness and Flexural Properties of Randomly-oriented Carbon Nanotube Composites. <i>Journal of Composite Materials</i> , 2003 , 37, 365-376	2.7	48
424	Polymorph Evolution Mechanisms and Regulation Strategies of Lithium Metal Anode under Multiphysical Fields. <i>Chemical Reviews</i> , 2021 , 121, 5986-6056	68.1	48
423	Synthesis and applications of three-dimensional graphene network structures. <i>Materials Today Nano</i> , 2019 , 5, 100027	9.7	47
422	Engineering Two-Dimensional Materials and Their Heterostructures as High-Performance Electrocatalysts. <i>Electrochemical Energy Reviews</i> , 2019 , 2, 373-394	29.3	47
421	A gradient bi-functional graphene-based modified electrode for vanadium redox flow batteries. <i>Energy Storage Materials</i> , 2018 , 13, 66-71	19.4	47
420	Additive-Free Dispersion of Single-Walled Carbon Nanotubes and Its Application for Transparent Conductive Films. <i>Advanced Functional Materials</i> , 2011 , 21, 2330-2337	15.6	47
419	Synthesis and photoluminescent property of AlN nanobelt array. <i>Diamond and Related Materials</i> , 2007 , 16, 537-541	3.5	47
418	Growth, Cathodoluminescence and Field Emission of ZnS Tetrapod Tree-like Heterostructures. <i>Advanced Functional Materials</i> , 2008 , 18, 3063-3069	15.6	47
417	Selective removal of metallic single-walled carbon nanotubes by combined in situ and post-synthesis oxidation. <i>Carbon</i> , 2010 , 48, 2941-2947	10.4	46

4 ¹⁶	Efficient Reversible Conversion between MoS and Mo/Na S Enabled by Graphene-Supported Single Atom Catalysts. <i>Advanced Materials</i> , 2021 , 33, e2007090	24	46
4 ¹⁵	Controllable Synthesis of Vertically Aligned p-Type GaN Nanorod Arrays on n-Type Si Substrates for Heterojunction Diodes. <i>Advanced Functional Materials</i> , 2008 , 18, 3515-3522	15.6	45
4 ¹⁴	Homogeneous Doping of Substitutional Nitrogen/Carbon in TiO ₂ Plates for Visible Light Photocatalytic Water Oxidation. <i>Advanced Functional Materials</i> , 2019 , 29, 1901943	15.6	44
4 ¹³	Reliable liquid electrolytes for lithium metal batteries. <i>Energy Storage Materials</i> , 2020 , 30, 113-129	19.4	44
4 ¹²	Visualizing the roles of graphene for excellent lithium storage. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 17808-17814	13	44
4 ¹¹	Boron oxynitride nanoclusters on tungsten trioxide as a metal-free cocatalyst for photocatalytic oxygen evolution from water splitting. <i>Nanoscale</i> , 2012 , 4, 1267-70	7.7	44
4 ¹⁰	Synthesis and High Thermal Stability of Double-Walled Carbon Nanotubes Using Nickel Formate Dihydrate as Catalyst Precursor. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 5006-5013	3.8	44
4 ⁰⁹	Pore structures of multi-walled carbon nanotubes activated by air, CO ₂ and KOH. <i>Journal of Porous Materials</i> , 2006 , 13, 141-146	2.4	44
4 ⁰⁸	The influence of preparation parameters on the mass production of vapor-grown carbon nanofibers. <i>Carbon</i> , 2000 , 38, 789-795	10.4	44
4 ⁰⁷	Towards the practical use of flexible lithium ion batteries. <i>Energy Storage Materials</i> , 2019 , 23, 434-438	19.4	43
4 ⁰⁶	Efficient adsorption of organic dyes on a flexible single-wall carbon nanotube film. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1191-1194	13	43
4 ⁰⁵	Thermal characterization of single-wall carbon nanotube bundles using the self-heating 3D technique. <i>Journal of Applied Physics</i> , 2006 , 100, 124314	2.5	43
4 ⁰⁴	Aligned double-walled carbon nanotube long ropes with a narrow diameter distribution. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 7169-73	3.4	43
4 ⁰³	Insights into the deposition chemistry of Li ions in nonaqueous electrolyte for stable Li anodes. <i>Chemical Society Reviews</i> , 2021 , 50, 3178-3210	58.5	43
4 ⁰²	Combined removal of di(2-ethylhexyl)phthalate (DEHP) and Pb(II) by using a cutinase loaded nanoporous gold-polyethyleneimine adsorbent. <i>RSC Advances</i> , 2014 , 4, 55511-55518	3.7	42
4 ⁰¹	Structural changes in iron oxide and gold catalysts during nucleation of carbon nanotubes studied by in situ transmission electron microscopy. <i>ACS Nano</i> , 2014 , 8, 292-301	16.7	42
4 ⁰⁰	Superiority of Graphene over Polymer Coatings for Prevention of Microbially Induced Corrosion. <i>Scientific Reports</i> , 2015 , 5, 13858	4.9	42
399	Field Emission and Cathodoluminescence of ZnS Hexagonal Pyramids of Zinc Blende Structured Single Crystals. <i>Advanced Functional Materials</i> , 2009 , 19, 484-490	15.6	42

398	Synthesis of Tin (II or IV) Oxide Coated Multiwall Carbon Nanotubes with Controlled Morphology. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 5790-5794	3.8	42
397	Fatigue failure mechanisms of single-walled carbon nanotube ropes embedded in epoxy. <i>Applied Physics Letters</i> , 2004 , 84, 2811-2813	3.4	42
396	Silica-Mediated Formation of Nickel Sulfide Nanosheets on CNT Films for Versatile Energy Storage. <i>Small</i> , 2019 , 15, e1805064	11	42
395	Continuous Fabrication of Meter-Scale Single-Wall Carbon Nanotube Films and their Use in Flexible and Transparent Integrated Circuits. <i>Advanced Materials</i> , 2018 , 30, e1802057	24	42
394	An overview on nitride and nitrogen-doped photocatalysts for energy and environmental applications. <i>Composites Part B: Engineering</i> , 2019 , 172, 704-723	10	41
393	In situ formation and rapid decomposition of Ti(BH ₄) ₃ by mechanical milling LiBH ₄ with TiF ₃ . <i>Applied Physics Letters</i> , 2009 , 94, 044104	3.4	41
392	Axial Young's modulus prediction of single-walled carbon nanotube arrays with diameters from nanometer to meter scales. <i>Applied Physics Letters</i> , 2005 , 87, 193101	3.4	41
391	Graphene oxide/graphene vertical heterostructure electrodes for highly efficient and flexible organic light emitting diodes. <i>Nanoscale</i> , 2016 , 8, 10714-23	7.7	41
390	Engineering d-p Orbital Hybridization in Single-Atom Metal-Embedded Three-Dimensional Electrodes for Li-S Batteries. <i>Advanced Materials</i> , 2021 , 33, e2105947	24	41
389	Carbon nanotube-linked hollow carbon nanospheres doped with iron and nitrogen as single-atom catalysts for the oxygen reduction reaction in acidic solutions. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14478-14482	13	40
388	Quenching of fluorescence of reduced graphene oxide by nitrogen-doping. <i>Applied Physics Letters</i> , 2012 , 100, 233112	3.4	40
387	Enhanced hydrogen storage properties of MgH ₂ co-catalyzed with NbF ₅ and single-walled carbon nanotubes. <i>Scripta Materialia</i> , 2007 , 56, 765-768	5.6	40
386	Evidence for, and an understanding of, the initial nucleation of carbon nanotubes produced by a floating catalyst method. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 16941-6	3.4	40
385	Ablation and mechanical behavior of a sandwich-structured composite with an inner layer of Cf/SiC between two outer layers of Cf/SiC/B ₂ C. <i>Corrosion Science</i> , 2014 , 80, 154-163	6.8	39
384	Tunable p-type conductivity and transport properties of AlN nanowires via Mg doping. <i>ACS Nano</i> , 2011 , 5, 3591-8	16.7	39
383	Titania polymorphs derived from crystalline titanium diboride. <i>CrystEngComm</i> , 2009 , 11, 2677	3.3	39
382	Field emission properties of macroscopic single-walled carbon nanotube strands. <i>Applied Physics Letters</i> , 2005 , 86, 223114	3.4	39
381	A MnO ₂ nanosheet/single-wall carbon nanotube hybrid fiber for wearable solid-state supercapacitors. <i>Carbon</i> , 2018 , 140, 634-643	10.4	39

380	A Freestanding Single-Wall Carbon Nanotube Film Decorated with N-Doped Carbon-Encapsulated Ni Nanoparticles as a Bifunctional Electrocatalyst for Overall Water Splitting. <i>Advanced Science</i> , 2019 , 6, 1802177	13.6	38
379	Substitutional Carbon-Modified Anatase TiO Decahedral Plates Directly Derived from Titanium Oxalate Crystals via Topotactic Transition. <i>Advanced Materials</i> , 2018 , 30, e1705999	24	38
378	In situ assembly of multi-sheeted buckybooks from single-walled carbon nanotubes. <i>ACS Nano</i> , 2009 , 3, 707-13	16.7	38
377	Catalytically Enhanced Hydrogen Storage Properties of Mg(NH ₂) ₂ + 2LiH Material by Graphite-Supported Ru Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 18280-18285	3.8	38
376	Structure and morphology of microporous carbon membrane materials derived from poly(phthalazinone ether sulfone ketone). <i>Microporous and Mesoporous Materials</i> , 2006 , 96, 79-83	5.3	38
375	Ion-Dipole Chemistry Drives Rapid Evolution of Li Ions Solvation Sheath in Low-Temperature Li Batteries. <i>Advanced Energy Materials</i> , 2021 , 11, 2100935	21.8	38
374	A nonstoichiometric SnO(2- δ) nanocrystal-based counter electrode for remarkably improving the performance of dye-sensitized solar cells. <i>Chemical Communications</i> , 2014 , 50, 7020-3	5.8	37
373	Graphene-based integrated electrodes for flexible lithium ion batteries. <i>2D Materials</i> , 2015 , 2, 024004	5.9	37
372	A comparative study of the structural, electronic, and vibrational properties of NH ₃ BH ₃ and LiNH ₂ BH ₃ : theory and experiment. <i>ChemPhysChem</i> , 2009 , 10, 1825-33	3.2	37
371	Boosting photoelectrochemical water splitting performance of Ta ₃ N ₅ nanorod array photoanodes by forming a dual co-catalyst shell. <i>Nano Energy</i> , 2019 , 59, 683-688	17.1	36
370	One-pot synthesis of metal-carbon nanotubes network hybrids as highly efficient catalysts for oxygen evolution reaction of water splitting. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 10089-98	9.5	36
369	Effect of carbonization atmosphere on the structure changes of PAN carbon membranes. <i>Journal of Porous Materials</i> , 2009 , 16, 197-203	2.4	36
368	Self-assembly and cathodoluminescence of microbelts from Cu-doped boron nitride nanotubes. <i>ACS Nano</i> , 2008 , 2, 1523-32	16.7	36
367	Effects of Carbon Nanotubes on Processing Stability of Polyoxymethylene in Melt-Mixing Process. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 13945-13950	3.8	36
366	CdPS nanosheets-based membrane with high proton conductivity enabled by Cd vacancies. <i>Science</i> , 2020 , 370, 596-600	33.3	36
365	A Durable and Efficient Electrocatalyst for Saline Water Splitting with Current Density Exceeding 2000 mA cm ⁻² . <i>Advanced Functional Materials</i> , 2021 , 31, 2010367	15.6	36
364	Structure, Preparation, and Applications of 2D Material-Based Metal-Semiconductor Heterostructures. <i>Small Structures</i> , 2021 , 2, 2000093	8.7	36
363	Transfer Methods of Graphene from Metal Substrates: A Review. <i>Small Methods</i> , 2019 , 3, 1900049	12.8	35

362	Second Time-Scale Synthesis of High-Quality Graphite Films by Quenching for Effective Electromagnetic Interference Shielding. <i>ACS Nano</i> , 2020 , 14, 3121-3128	16.7	35
361	Reduced graphene oxide/metal oxide nanoparticles composite membranes for highly efficient molecular separation. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1481-1486	9.1	35
360	Structural Control of Graphene-Based Materials for Unprecedented Performance. <i>ACS Nano</i> , 2018 , 12, 5085-5092	16.7	35
359	Constructing a Metallic/Semiconducting TaB ₂ /Ta ₂ O ₅ Core/Shell Heterostructure for Photocatalytic Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2014 , 4, 1400057	21.8	35
358	An environment-friendly microemulsion approach to FeOOH nanorods at room temperature. <i>Materials Research Bulletin</i> , 2006 , 41, 2238-2243	5.1	35
357	Identification of the constituents of double-walled carbon nanotubes using Raman spectra taken with different laser-excitation energies. <i>Journal of Materials Research</i> , 2003 , 18, 1251-1258	2.5	35
356	Tailoring the diameters of vapor-grown carbon nanofibers. <i>Carbon</i> , 2000 , 38, 921-927	10.4	35
355	Lithium-Sulfur Batteries: Metal-Organic Frameworks (MOFs)-Derived Nitrogen-Doped Porous Carbon Anchored on Graphene with Multifunctional Effects for Lithium-Sulfur Batteries (Adv. Funct. Mater. 38/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870274	15.6	35
354	Smart Materials and Design toward Safe and Durable Lithium Ion Batteries. <i>Small Methods</i> , 2019 , 3, 1900323	13.2	34
353	Long-term oxidation behavior of carbon/carbon composites with a SiC/B ₄ C/B ₂ O ₃ /Bi ₂ O ₃ /Al ₂ O ₃ coating at low and medium temperatures. <i>Corrosion Science</i> , 2015 , 94, 452-458	6.8	34
352	Sustainable hydrogen production by molybdenum carbide-based efficient photocatalysts: From properties to mechanism. <i>Advances in Colloid and Interface Science</i> , 2020 , 279, 102144	14.3	34
351	Noninvasively Modifying Band Structures of Wide-Bandgap Metal Oxides to Boost Photocatalytic Activity. <i>Advanced Materials</i> , 2018 , 30, e1706259	24	34
350	Electrochemical process of sulfur in carbon materials from electrode thickness to interlayer. <i>Journal of Energy Chemistry</i> , 2019 , 31, 119-124	12	34
349	Carbon nanotube-clamped metal atomic chain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 9055-9	11.5	34
348	Manganese-Catalyzed Surface Growth of Single-Walled Carbon Nanotubes with High Efficiency. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 19231-19235	3.8	34
347	Preparation of carbon microcoils by catalytic decomposition of acetylene using nickel foam as both catalyst and substrate. <i>Carbon</i> , 2005 , 43, 1874-1878	10.4	34
346	Synthesis of rectangular cross-section AlN nanofibers by chemical vapor deposition. <i>Chemical Physics Letters</i> , 2005 , 416, 171-175	2.5	34
345	Direct writing of graphene patterns and devices on graphene oxide films by inkjet reduction. <i>Nano Research</i> , 2015 , 8, 3954-3962	10	33

- 344 A Nanosheet Array of Cu₂Se Intercalation Compound with Expanded Interlayer Space for Sodium Ion Storage. *Advanced Energy Materials*, **2020**, 10, 2000666 21.8 33
- 343 Boosting efficiency and stability of perovskite solar cells with nickel phthalocyanine as a low-cost hole transporting layer material. *Journal of Materials Science and Technology*, **2018**, 34, 1474-1480 9.1 33
- 342 Chirality-dependent reactivity of individual single-walled carbon nanotubes. *Small*, **2013**, 9, 1379-86 11 33
- 341 Materials science: when two is better than one. *Nature*, **2013**, 497, 448-9 50.4 33
- 340 Highly efficient H₂ evolution over ZnO-ZnS-CdS heterostructures from an aqueous solution containing SO₃²⁻ and S²⁻ ions. *Journal of Materials Research*, **2010**, 25, 39-44 2.5 33
- 339 In situ electrical measurements of polytypic silver nanowires. *Nanotechnology*, **2008**, 19, 085711 3.4 33
- 338 Synergistic Effects of B/N Doping on the Visible-Light Photocatalytic Activity of Mesoporous TiO₂. *Angewandte Chemie*, **2008**, 120, 4592-4596 3.6 33
- 337 Status and prospects of porous graphene networks for lithium-sulfur batteries. *Materials Horizons*, **2020**, 7, 2487-2518 14.4 33
- 336 Multifunctional fabrics of carbon nanotube fibers. *Journal of Materials Chemistry A*, **2019**, 7, 8790-8797 13 32
- 335 Combined biological removal of methylene blue from aqueous solutions using rice straw and *Phanerochaete chrysosporium*. *Applied Microbiology and Biotechnology*, **2015**, 99, 5247-56 5.7 32
- 334 Double-Balanced Graphene Integrated Mixer with Outstanding Linearity. *Nano Letters*, **2015**, 15, 6677-821.5 32
- 333 Bi-Cation Electrolyte for a 1.7 V Aqueous Zn Ion Battery. *ACS Applied Materials & Interfaces*, **2020**, 12, 13790-13796 9.5 32
- 332 Sensitive and selective detection of mercury ions based on papain and 2,6-pyridinedicarboxylic acid functionalized gold nanoparticles. *RSC Advances*, **2016**, 6, 3259-3266 3.7 32
- 331 Double-wall carbon nanotube transparent conductive films with excellent performance. *Journal of Materials Chemistry A*, **2014**, 2, 1159-1164 13 32
- 330 Poly(vinyl chloride) (PVC) Coated Idea Revisited: Influence of Carbonization Procedures on PVC-Coated Natural Graphite as Anode Materials for Lithium Ion Batteries. *Journal of Physical Chemistry C*, **2008**, 112, 7767-7772 3.8 32
- 329 New Insight into the Interaction between Propylene Carbonate-Based Electrolytes and Graphite Anode Material for Lithium Ion Batteries. *Journal of Physical Chemistry C*, **2007**, 111, 4740-4748 3.8 32
- 328 Perfect proton selectivity in ion transport through two-dimensional crystals. *Nature Communications*, **2019**, 10, 4243 17.4 31
- 327 Identification of active sites in nitrogen and sulfur co-doped carbon-based oxygen reduction catalysts. *Carbon*, **2019**, 147, 303-311 10.4 31

326	Direct observation of atomic dynamics and silicon doping at a topological defect in graphene. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 8908-12	16.4	31
325	The effect of carbon particle morphology on the electrochemical properties of nanocarbon/polyaniline composites in supercapacitors. <i>New Carbon Materials</i> , 2011 , 26, 180-186	4.4	31
324	Catalytically enhanced dehydrogenation of LiMgNH hydrogen storage material by transition metal nitrides. <i>Journal of Alloys and Compounds</i> , 2009 , 468, L21-L24	5.7	31
323	A simple and low-temperature hydrothermal route for the synthesis of tubular FeOOH. <i>Materials Letters</i> , 2007 , 61, 4794-4796	3.3	31
322	A highly active and durable electrocatalyst for large current density hydrogen evolution reaction. <i>Science Bulletin</i> , 2020 , 65, 123-130	10.6	31
321	Synthesis and Electrochemical Lithium Storage Behavior of Carbon Nanotubes Filled with Iron Sulfide Nanoparticles. <i>Advanced Science</i> , 2016 , 3, 1600113	13.6	31
320	Chemical Vapor Deposition Growth of Two-Dimensional Compound Materials: Controllability, Material Quality, and Growth Mechanism. <i>Accounts of Materials Research</i> , 2021 , 2, 36-47	7.5	31
319	Carbon nanotube/silicon heterojunctions for photovoltaic applications. <i>Nano Materials Science</i> , 2019 , 1, 156-172	10.2	30
318	Synthesis and Application of Modified Zero-Valent Iron Nanoparticles for Removal of Hexavalent Chromium from Wastewater. <i>Water, Air, and Soil Pollution</i> , 2015 , 226, 1	2.6	30
317	Carbon nanotubes prepared by anodic aluminum oxide template method. <i>Science Bulletin</i> , 2012 , 57, 187-204		30
316	ZnS nanowires and their coaxial lateral nanowire heterostructures with BN. <i>Applied Physics Letters</i> , 2007 , 90, 103117	3.4	30
315	The application of Zeolitic imidazolate frameworks (ZIFs) and their derivatives based materials for photocatalytic hydrogen evolution and pollutants treatment. <i>Chemical Engineering Journal</i> , 2021 , 417, 127914	14.7	30
314	2D hierarchical yolk-shell heterostructures as advanced host-interlayer integrated electrode for enhanced Li-S batteries. <i>Journal of Energy Chemistry</i> , 2019 , 36, 64-73	12	29
313	An Aluminum-Sulfur Battery with a Fast Kinetic Response. <i>Angewandte Chemie</i> , 2018 , 130, 1916-1920	3.6	29
312	A film of rutile TiO ₂ pillars with well-developed facets on an Ti substrate as a photoelectrode for improved water splitting. <i>Nanoscale</i> , 2012 , 4, 3871-4	7.7	29
311	A simple solution route to controlled synthesis of ZnS submicrospheres, nanosheets and nanorods. <i>Nanotechnology</i> , 2006 , 17, 4731-5	3.4	29
310	The properties of carbon fibre/SiC composites fabricated through impregnation and pyrolysis of polycarbosilane. <i>Journal of Materials Science</i> , 1999 , 34, 827-834	4.3	29
309	Roles of multiwall carbon nanotubes in phytoremediation: cadmium uptake and oxidative burst in <i>Boehmeria nivea</i> (L.) Gaudich. <i>Environmental Science: Nano</i> , 2019 , 6, 851-862	7.1	28

308	A 3D Multifunctional Architecture for Lithium Sulfur Batteries with High Areal Capacity. <i>Small Methods</i> , 2018 , 2, 1800067	12.8	28
307	Small-bundle single-wall carbon nanotubes for high-efficiency silicon heterojunction solar cells. <i>Nano Energy</i> , 2018 , 50, 521-527	17.1	28
306	All-Carbon Thin-Film Transistors as a Step Towards Flexible and Transparent Electronics. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600229	6.4	28
305	Dual-Additive Assisted Chemical Vapor Deposition for the Growth of Mn-Doped 2D MoS with Tunable Electronic Properties. <i>Small</i> , 2020 , 16, e1903181	11	28
304	Single-atom catalysts for metal-sulfur batteries: Current progress and future perspectives. <i>Journal of Energy Chemistry</i> , 2021 , 54, 452-466	12	28
303	Interlayer epitaxy of wafer-scale high-quality uniform AB-stacked bilayer graphene films on liquid PtSi/solid Pt. <i>Nature Communications</i> , 2019 , 10, 2809	17.4	27
302	A smart self-regenerative lithium ion supercapacitor with a real-time safety monitor. <i>Energy Storage Materials</i> , 2015 , 1, 146-151	19.4	27
301	Enhanced photocatalytic hydrogen generation of mesoporous rutile TiO ₂ single crystal with wholly exposed {111} facets. <i>Chinese Journal of Catalysis</i> , 2015 , 36, 2103-2108	11.3	27
300	Enrichment of semiconducting single-walled carbon nanotubes by carbothermic reaction for use in all-nanotube field effect transistors. <i>ACS Nano</i> , 2012 , 6, 9657-61	16.7	27
299	Bandgap narrowing of titanium oxide nanosheets: homogeneous doping of molecular iodine for improved photoreactivity. <i>Journal of Materials Chemistry</i> , 2011 , 21, 14672		27
298	Identification of the conducting category of individual carbon nanotubes from Stokes and anti-Stokes Raman scattering. <i>Physical Review B</i> , 2000 , 62, 5186-5190	3.3	27
297	Chlorine capped SnO ₂ quantum-dots modified TiO ₂ electron selective layer to enhance the performance of planar perovskite solar cells. <i>Science Bulletin</i> , 2019 , 64, 547-552	10.6	26
296	A Flexible Carbon Nanotube Sen-Memory Device. <i>Advanced Materials</i> , 2020 , 32, e1907288	24	26
295	High-Throughput Fabrication of Flexible and Transparent All-Carbon Nanotube Electronics. <i>Advanced Science</i> , 2018 , 5, 1700965	13.6	26
294	Epitaxial growth of single-wall carbon nanotubes. <i>Carbon</i> , 2016 , 102, 181-197	10.4	26
293	Achieving maximum photo-oxidation reactivity of Cs _{0.68} Ti _{1.83} O _{4-x} N _x photocatalysts through valence band fine-tuning. <i>Catalysis Science and Technology</i> , 2011 , 1, 222	5.5	26
292	The facile synthesis of nickel silicide nanobelts and nanosheets and their application in electrochemical energy storage. <i>Nanotechnology</i> , 2008 , 19, 165606	3.4	26
291	Advantage of TiF ₃ over TiCl ₃ as a dopant precursor to improve the thermodynamic property of Na ₃ AlH ₆ . <i>Scripta Materialia</i> , 2007 , 56, 361-364	5.6	26

290	A Raman probe for selective wrapping of single-walled carbon nanotubes by DNA. <i>Nanotechnology</i> , 2007 , 18, 405706	3.4	26
289	Simple approach to estimating the van der Waals interaction between carbon nanotubes. <i>Physical Review B</i> , 2006 , 73,	3.3	25
288	Double-walled carbon nanotubes synthesized using carbon black as the dot carbon source. <i>Nanotechnology</i> , 2006 , 17, 3100-3104	3.4	25
287	Monolayer carbon-encapsulated Mo-doped Ni nanoparticles anchored on single-wall carbon nanotube film for total water splitting. <i>Applied Catalysis B: Environmental</i> , 2020 , 269, 118823	21.8	24
286	The smart era of electrochemical energy storage devices. <i>Energy Storage Materials</i> , 2016 , 3, 66-68	19.4	24
285	High-performance single-wall carbon nanotube transparent conductive films. <i>Journal of Materials Science and Technology</i> , 2019 , 35, 2447-2462	9.1	24
284	Efficient organic photovoltaic cells on a single layer graphene transparent conductive electrode using MoO as an interfacial layer. <i>Nanoscale</i> , 2017 , 9, 251-257	7.7	24
283	Enhanced Hydrogen Storage Properties of LiMgNiH System Prepared by Reacting Mg(NH ₂) ₂ with Li ₃ N. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 9944-9949	3.8	24
282	Dual-Phasic Carbon with Co Single Atoms and Nanoparticles as a Bifunctional Oxygen Electrocatalyst for Rechargeable ZnAir Batteries. <i>Advanced Functional Materials</i> , 2021 , 31, 2103360	15.6	24
281	Long-term oxidation behaviors of C/SiC composites with a SiC/UHTC/SiC three-layer coating in a wide temperature range. <i>Corrosion Science</i> , 2019 , 147, 1-8	6.8	24
280	Ultrafast growth of nanocrystalline graphene films by quenching and grain-size-dependent strength and bandgap opening. <i>Nature Communications</i> , 2019 , 10, 4854	17.4	23
279	All-Solid-State Planar Sodium-Ion Microcapacitors with Multidirectional Fast Ion Diffusion Pathways. <i>Advanced Science</i> , 2019 , 6, 1902147	13.6	23
278	Carbon-encapsulated NiO nanoparticle decorated single-walled carbon nanotube thin films for binderless flexible electrodes of supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 24813-24819 ¹³		23
277	Controlled Electrochemical Charge Injection to Maximize the Energy Density of Supercapacitors. <i>Angewandte Chemie</i> , 2013 , 125, 3810-3813	3.6	23
276	Synthesis and Photoelectrochemical Behavior of Nitrogen-doped NaTaO ₃ . <i>Chemistry Letters</i> , 2009 , 38, 214-215	1.7	23
275	Graphene-Supported Atomically Dispersed Metals as Bifunctional Catalysts for Next-Generation Batteries Based on Conversion Reactions. <i>Advanced Materials</i> , 2021 , e2105812	24	23
274	Modulating Electronic Structure of Monolayer Transition Metal Dichalcogenides by Substitutional Nb-Doping. <i>Advanced Functional Materials</i> , 2021 , 31, 2006941	15.6	23
273	The rapid degradation of bisphenol A induced by the response of indigenous bacterial communities in sediment. <i>Applied Microbiology and Biotechnology</i> , 2017 , 101, 3919-3928	5.7	22

- 272 Suppressing lithium dendrite formation by slowing its desolvation kinetics. *Chemical Communications*, **2019**, 55, 13211-13214 5.8 22
- 271 An integrated composite with a porous Cf/C-ZrB₂-SiC core between two compact outer layers of Cf/C-ZrB₂-SiC and Cf/C-SiC. *Journal of the European Ceramic Society*, **2015**, 35, 1113-1117 6 22
- 270 In Situ TEM Observations on the Sulfur-Assisted Catalytic Growth of Single-Wall Carbon Nanotubes. *Journal of Physical Chemistry Letters*, **2014**, 5, 1427-32 6.4 22
- 269 A graphene field-effect capacitor sensor in electrolyte. *Applied Physics Letters*, **2012**, 101, 154106 3.4 22
- 268 KH+Ti co-doped NaAlH₄ for high-capacity hydrogen storage. *Journal of Applied Physics*, **2005**, 98, 074905 5.5 22
- 267 An in-situ solidification strategy to block polysulfides in Lithium-Sulfur batteries. *Energy Storage Materials*, **2021**, 37, 224-232 19.4 22
- 266 Phase transition and in situ construction of lateral heterostructure of 2D superconducting FeMoC with sharp interface by electron beam irradiation. *Nanoscale*, **2017**, 9, 7501-7507 7.7 21
- 265 Vertically aligned carbon nanotube arrays as a thermal interface material. *APL Materials*, **2019**, 7, 020902 5.7 21
- 264 Improving Hydrogen Storage Performance of NaAlH₄ by Novel Two-Step Milling Method. *Journal of Physical Chemistry C*, **2007**, 111, 4879-4884 3.8 21
- 263 Polarized Raman analysis of aligned double-walled carbon nanotubes. *Physical Review B*, **2005**, 71, 3.3 21
- 262 Fabrication of carbon fibre-reinforced aluminium composites with hybridization of a small amount of particulates or whiskers of silicon carbide by pressure casting. *Journal of Materials Science*, **1992**, 27, 3617-3623 4.3 21
- 261 Constructing a Stable Interface Layer by Tailoring Solvation Chemistry in Carbonate Electrolytes for High Performance Lithium Metal Batteries. *Advanced Materials*, **2021**, e2108400 24 21
- 260 Control of Spatially Homogeneous Distribution of Heteroatoms to Produce Red TiO Photocatalyst for Visible-Light Photocatalytic Water Splitting. *Chemistry - A European Journal*, **2019**, 25, 1787-1794 4.8 21
- 259 Fluorination-assisted preparation of self-supporting single-atom Fe-N-doped single-wall carbon nanotube film as bifunctional oxygen electrode for rechargeable Zn-Air batteries. *Applied Catalysis B: Environmental*, **2021**, 294, 120239 21.8 21
- 258 Water-assisted rapid growth of monolayer graphene films on SiO₂/Si substrates. *Carbon*, **2019**, 148, 241-248 2.4 20
- 257 Mitigating self-discharge of carbon-based electrochemical capacitors by modifying their electric-double layer to maximize energy efficiency. *Journal of Energy Chemistry*, **2019**, 38, 214-218 12 20
- 256 Growth of metal-catalyst-free nitrogen-doped metallic single-wall carbon nanotubes. *Nanoscale*, **2014**, 6, 12065-70 7.7 20
- 255 Patterning flexible single-walled carbon nanotube thin films by an ozone gas exposure method. *Carbon*, **2013**, 53, 4-10 10.4 20

254	A Ta-TaS monolith catalyst with robust and metallic interface for superior hydrogen evolution. <i>Nature Communications</i> , 2021 , 12, 6051	17.4	20
253	Gradient Sn-Doped Heteroepitaxial Film of Faceted Rutile TiO as an Electron Selective Layer for Efficient Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 19638-19646	9.5	19
252	Nickel phthalocyanine as an excellent hole-transport material in inverted planar perovskite solar cells. <i>Chemical Communications</i> , 2019 , 55, 5343-5346	5.8	19
251	Growth, metabolism of Phanerochaete chrysosporium and route of lignin degradation in response to cadmium stress in solid-state fermentation. <i>Chemosphere</i> , 2015 , 138, 560-7	8.4	19
250	Spatial mobility fluctuation induced giant linear magnetoresistance in multilayered graphene foam. <i>Physical Review B</i> , 2016 , 94,	3.3	19
249	Manganese-enhanced degradation of lignocellulosic waste by Phanerochaete chrysosporium: evidence of enzyme activity and gene transcription. <i>Applied Microbiology and Biotechnology</i> , 2017 , 101, 6541-6549	5.7	19
248	Dispersible percolating carbon nano-electrodes for improvement of polysulfide utilization in LiS batteries. <i>Carbon</i> , 2015 , 93, 161-168	10.4	19
247	Open-pore LiFePO ₄ /C microspheres with high volumetric energy density for lithium ion batteries. <i>Particuology</i> , 2015 , 22, 24-29	2.8	19
246	Zinc sulfide nanowire arrays on silicon wafers for field emitters. <i>Nanotechnology</i> , 2010 , 21, 065701	3.4	19
245	Preparation of high purity ZnO nanobelts by thermal evaporation of ZnS. <i>Journal of Nanoscience and Nanotechnology</i> , 2006 , 6, 704-7	1.3	19
244	Effects of carbon nanotubes and metal catalysts on hydrogen storage in magnesium nanocomposites. <i>Journal of Nanoscience and Nanotechnology</i> , 2006 , 6, 494-8	1.3	19
243	Surface fractal dimension of single-walled carbon nanotubes. <i>Physical Review B</i> , 2004 , 69,	3.3	19
242	Development of Graphene-based Materials for Lithium-Sulfur Batteries. <i>Wuli Huaxue Xuebao/Acta Physico - Chimica Sinica</i> , 2018 , 34, 377-390	3.8	19
241	Megamerger of MOFs and g-C ₃ N ₄ for energy and environment applications: upgrading the framework stability and performance. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17883-17906	13	19
240	Surface and interface engineering of two-dimensional bismuth-based photocatalysts for ambient molecule activation. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 196-233	13	19
239	A Double Support Layer for Facile Clean Transfer of Two-Dimensional Materials for High-Performance Electronic and Optoelectronic Devices. <i>ACS Nano</i> , 2019 , 13, 5513-5522	16.7	18
238	Flexible batteries ahead. <i>National Science Review</i> , 2017 , 4, 20-23	10.8	18
237	Design and construction of a film of mesoporous single-crystal rutile TiO ₂ rod arrays for photoelectrochemical water oxidation. <i>Chinese Journal of Catalysis</i> , 2015 , 36, 2171-2177	11.3	18

236	Thermal properties of nanocrystalline Al composites reinforced by AlN nanoparticles. <i>Journal of Materials Research</i> , 2009 , 24, 24-31	2.5	18
235	Precise Identification of the Active Phase of Cobalt Catalyst for Carbon Nanotube Growth by Transmission Electron Microscopy. <i>ACS Nano</i> , 2020 ,	16.7	18
234	Molecular docking simulation on the interactions of laccase from <i>Trametes versicolor</i> with nonylphenol and octylphenol isomers. <i>Bioprocess and Biosystems Engineering</i> , 2018 , 41, 331-343	3.7	18
233	High-Performance Lithium Metal Batteries with a Wide Operating Temperature Range in Carbonate Electrolyte by Manipulating Interfacial Chemistry. <i>ACS Energy Letters</i> , 2021 , 6, 3170-3179	20.1	18
232	A Rechargeable Quasi-symmetrical MoS ₂ Battery. <i>Joule</i> , 2018 , 2, 1278-1286	27.8	17
231	Improving the photocatalytic activity of graphitic carbon nitride by thermal treatment in a high-pressure hydrogen atmosphere. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 183-188	3.6	17
230	Direct Observation of Atomic Dynamics and Silicon Doping at a Topological Defect in Graphene. <i>Angewandte Chemie</i> , 2014 , 126, 9054-9058	3.6	17
229	Synthesis and field emission property of carbon nanotubes with sharp tips. <i>New Carbon Materials</i> , 2011 , 26, 52-56	4.4	17
228	Selected absorption behavior of sulfur on single-walled carbon nanotubes by DFT. <i>Chemical Physics Letters</i> , 2008 , 454, 305-309	2.5	17
227	Stability of supershort single-walled carbon nanotubes. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 12406-12409	5.4	17
226	Electron microscopy study of Ti-doped sodium aluminum hydride prepared by mechanical milling NaAlH ₄ with Ti powder. <i>Journal of Applied Physics</i> , 2006 , 100, 034914	2.5	17
225	Direct formation of Na ₃ AlH ₆ by mechanical milling NaAlH ₄ with TiF ₃ . <i>Applied Physics Letters</i> , 2005 , 87, 071911	3.4	17
224	Preparation and Fracture Behavior of Carbon Fiber/SiC Composites by Multiple Impregnation and Pyrolysis of Polycarbosilane. <i>Journal of the Ceramic Society of Japan</i> , 1998 , 106, 1155-1161		17
223	Intercalation-Induced Conversion Reactions Give High-Capacity Potassium Storage. <i>ACS Nano</i> , 2020 , 14, 14026-14035	16.7	17
222	Porous Graphene Materials: The Chemistry and Promising Applications of Graphene and Porous Graphene Materials (Adv. Funct. Mater. 41/2020). <i>Advanced Functional Materials</i> , 2020 , 30, 2070275	15.6	17
221	Batteries: A Graphene-Sulfur Sandwich Structure for Ultrafast, Long-Life Lithium-Sulfur Batteries (Adv. Mater. 4/2014). <i>Advanced Materials</i> , 2014 , 26, 664-664	24	16
220	Growth of double-walled carbon nanotubes from silicon oxide nanoparticles. <i>Carbon</i> , 2013 , 56, 167-172	10.4	16
219	Correlation between topographic structures and local field emission characteristics of graphene-sheet films. <i>Carbon</i> , 2013 , 61, 507-514	10.4	16

218	Switching Photocatalytic H ₂ and O ₂ Generation Preferences of Rutile TiO ₂ Microspheres with Dominant Reactive Facets by Boron Doping. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 84-89	3.8	16
217	High-efficiency and stable silicon heterojunction solar cells with lightly fluorinated single-wall carbon nanotube films. <i>Nano Energy</i> , 2020 , 69, 104442	17.1	16
216	Transfer-free CVD graphene for highly sensitive glucose sensors. <i>Journal of Materials Science and Technology</i> , 2020 , 37, 71-76	9.1	16
215	Dissolution-precipitation growth of uniform and clean two dimensional transition metal dichalcogenides. <i>National Science Review</i> , 2021 , 8, nwa115	10.8	16
214	Surface-restrained growth of vertically aligned carbon nanotube arrays with excellent thermal transport performance. <i>Nanoscale</i> , 2017 , 9, 8213-8219	7.7	15
213	Die wiederaufladbare Aluminiumbatterie: Möglichkeiten und Herausforderungen. <i>Angewandte Chemie</i> , 2019 , 131, 12104-12124	3.6	15
212	Layer-Stacking, Defects, and Robust Superconductivity on the Mo-Terminated Surface of Ultrathin MoC Flakes Grown by CVD. <i>Nano Letters</i> , 2019 , 19, 3327-3335	11.5	15
211	Clean, fast and scalable transfer of ultrathin/patterned vertically-aligned carbon nanotube arrays. <i>Carbon</i> , 2018 , 133, 275-282	10.4	15
210	The effect of carbon support on the oxygen reduction activity and durability of single-atom iron catalysts. <i>MRS Communications</i> , 2018 , 8, 1158-1166	2.7	15
209	Template synthesis of ultra-thin and short carbon nanotubes with two open ends. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15221		15
208	A combined biological removal of Cd(2+) from aqueous solutions using Phanerochaete chrysosporium and rice straw. <i>Ecotoxicology and Environmental Safety</i> , 2016 , 130, 87-92	7	15
207	Carbon Dots-Decorated Carbon-Based Metal-Free Catalysts for Electrochemical Energy Storage. <i>Small</i> , 2021 , 17, e2002998	11	15
206	Selective Growth of Metal-Free Metallic and Semiconducting Single-Wall Carbon Nanotubes. <i>Advanced Materials</i> , 2017 , 29, 1605719	24	14
205	Synthesis of monolithic carbon aerogels with high mechanical strength via ambient pressure drying without solvent exchange. <i>Journal of Materials Science and Technology</i> , 2020 , 50, 66-74	9.1	14
204	High Yield Controlled Synthesis of Nano-Graphene Oxide by Water Electrolytic Oxidation of Glassy Carbon for Metal-Free Catalysis. <i>ACS Nano</i> , 2019 , 13, 9482-9490	16.7	14
203	Progress of graphene growth on copper by chemical vapor deposition: Growth behavior and controlled synthesis. <i>Science Bulletin</i> , 2012 , 57, 2995-2999		14
202	Heteroepitaxial growth of single-walled carbon nanotubes from boron nitride. <i>Scientific Reports</i> , 2012 , 2, 971	4.9	14
201	Long wavelength emissions of periodic yard-glass shaped boron nitride nanotubes. <i>Applied Physics Letters</i> , 2009 , 94, 023105	3.4	14

200	Synthesis, purification and opening of short cup-stacked carbon nanotubes. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 4554-60	1.3	14
199	Pyrolytic carbon-coated silicon/Carbon Nanotube composites: promising application for Li-ion batteries. <i>International Journal of Nanomanufacturing</i> , 2008 , 2, 4	0.7	14
198	Controlled synthesis of quasi-one-dimensional boron nitride nanostructures. <i>Journal of Materials Research</i> , 2007 , 22, 2809-2816	2.5	14
197	Raman evidence for atomic correlation between the two constituent tubes in double-walled carbon nanotubes. <i>Physical Review B</i> , 2006 , 73,	3.3	14
196	Boron nitride nanotubes filled with zirconium oxide nanorods. <i>Journal of Materials Research</i> , 2002 , 17, 2761-2764	2.5	14
195	Characteristics of several carbon fibrereinforced aluminium composites prepared by a hybridization method. <i>Journal of Materials Science</i> , 1994 , 29, 4342-4350	4.3	14
194	Challenges and development of lithium-ion batteries for low temperature environments. <i>ETransportation</i> , 2021 , 100145	12.7	14
193	Engineering the Active Sites of Graphene Catalyst: From CO Activation to Activate Li-CO Batteries. <i>ACS Nano</i> , 2021 , 15, 9841-9850	16.7	14
192	Recent Progress in 3D Printing of 2D Material-Based Macrostructures. <i>Advanced Materials Technologies</i> , 2020 , 5, 1901066	6.8	13
191	Degradation of di (2-ethylhexyl) phthalate in sediment by a surfactant-enhanced Fenton-like process. <i>Chemosphere</i> , 2018 , 198, 327-333	8.4	13
190	SYNTHESIS OF WORMLIKE NANOPOROUS NICKEL OXIDE WITH NANOCRYSTALLINE FRAMEWORK FOR ELECTROCHEMICAL ENERGY STORAGE. <i>International Journal of Nanoscience</i> , 2004 , 03, 321-329	0.6	13
189	DissolutionPrecipitation Dynamics in Ester Electrolyte for High-Stability Lithium Metal Batteries. <i>ACS Energy Letters</i> , 1413-1421	20.1	13
188	Doping Concentration Modulation in Vanadium-Doped Monolayer Molybdenum Disulfide for Synaptic Transistors. <i>ACS Nano</i> , 2021 , 15, 7340-7347	16.7	13
187	Properties and photodetector applications of two-dimensional black arsenic phosphorus and black phosphorus. <i>Science China Information Sciences</i> , 2021 , 64, 1	3.4	13
186	Aligned Carbon-Based Electrodes for Fast-Charging Batteries: A Review. <i>Small</i> , 2021 , 17, e2007676	11	13
185	An ultrasensitive molybdenum-based double-heterojunction phototransistor. <i>Nature Communications</i> , 2021 , 12, 4094	17.4	13
184	Grain Boundaries and Tilt-Angle-Dependent Transport Properties of a 2D MoC Superconductor. <i>Nano Letters</i> , 2019 , 19, 857-865	11.5	13
183	The effect of Pt nanoparticles distribution on the removal of cyanide by TiO ₂ coated Al-MCM-41 in blue light exposure. <i>Arabian Journal of Chemistry</i> , 2019 , 12, 957-965	5.9	13

182	Half-Metallicity in Co-Doped WSe Nanoribbons. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 38796-38801	9.1	12
181	Sandwich-structured C/C-SiC composites fabricated by electromagnetic-coupling chemical vapor infiltration. <i>Scientific Reports</i> , 2017 , 7, 13120	4.9	12
180	A flexible thermoelectric device based on a Bi ₂ Te ₃ -carbon nanotube hybrid. <i>Journal of Materials Science and Technology</i> , 2020 , 58, 80-85	9.1	12
179	Diversity of ultrafast hot-carrier-induced dynamics and striking sub-femtosecond hot-carrier scattering times in graphene. <i>Carbon</i> , 2014 , 72, 402-409	10.4	12
178	Applications of carbon nanotubes and graphene produced by chemical vapor deposition. <i>MRS Bulletin</i> , 2017 , 42, 825-833	3.2	12
177	Visible-Light-Responsive Rhombohedral Boron Photocatalysts. <i>Angewandte Chemie</i> , 2013 , 125, 6362-6365	6.5	12
176	Fermi level dependent optical transition energy in metallic single-walled carbon nanotubes. <i>Carbon</i> , 2011 , 49, 4774-4780	10.4	12
175	Improving the electrochemical properties of natural graphite spheres by coating with a pyrolytic carbon shell. <i>New Carbon Materials</i> , 2008 , 23, 30-36	4.4	12
174	Preliminary investigation on the catalytic mechanism of TiF ₃ additive in MgH ₂ /TiF ₃ H-storage system. <i>Journal of Materials Research</i> , 2007 , 22, 1779-1786	2.5	12
173	MECHANICAL PROPERTIES OF SURFACTANT-COATING CARBON NANOFIBER/EPOXY COMPOSITE. <i>International Journal of Nanoscience</i> , 2002 , 01, 425-430	0.6	12
172	Preparation of carbon fibre reinforced aluminium via ultrasonic liquid infiltration technique. <i>Materials Science and Technology</i> , 1993 , 9, 609-614	1.5	12
171	Designing Electrophilic and Nucleophilic Dual Centers in the ReS Plane toward Efficient Bifunctional Catalysts for Li-CO Batteries.. <i>Journal of the American Chemical Society</i> , 2022 ,	16.4	12
170	Synthesis of Ultrahigh-Quality Monolayer Molybdenum Disulfide through In Situ Defect Healing with Thiol Molecules. <i>Small</i> , 2020 , 16, e2003357	11	12
169	Integrated Paper-Based Flexible Li-Ion Batteries Made by a Rod Coating Method. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 46776-46782	9.5	12
168	Extremely efficient flexible organic solar cells with a graphene transparent anode: Dependence on number of layers and doping of graphene. <i>Carbon</i> , 2021 , 171, 350-358	10.4	12
167	Iron Oxide Nanoclusters Incorporated into Iron Phthalocyanine as Highly Active Electrocatalysts for the Oxygen Reduction Reaction. <i>ChemCatChem</i> , 2018 , 10, 475-483	5.2	12
166	A Desolvated Solid-Solid Interface for a High-Capacitance Electric Double Layer. <i>Advanced Energy Materials</i> , 2019 , 9, 1803715	21.8	11
165	Amorphization and Directional Crystallization of Metals Confined in Carbon Nanotubes Investigated by in Situ Transmission Electron Microscopy. <i>Nano Letters</i> , 2015 , 15, 4922-7	11.5	11

164	Fast lithium ion transport in solid polymer electrolytes from polysulfide-bridged copolymers. <i>Nano Energy</i> , 2020 , 75, 104976	17.1	11
163	3D graphene aerogel based photocatalysts: Synthesized, properties, and applications. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020 , 594, 124666	5.1	11
162	Maximizing the visible light photoelectrochemical activity of B/N-doped anatase TiO ₂ microspheres with exposed dominant {001} facets. <i>Science China Materials</i> , 2018 , 61, 831-838	7.1	11
161	Scalable residue-free graphene for surface-enhanced Raman scattering. <i>Carbon</i> , 2016 , 98, 567-571	10.4	11
160	Improved Damping and High Strength of Graphene-Coated Nickel Hybrid Foams. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42690-42696	9.5	11
159	De-bundling of single-wall carbon nanotubes induced by an electric field during arc discharge synthesis. <i>Carbon</i> , 2014 , 74, 370-373	10.4	11
158	Structural evolution of carbon microcoils induced by a direct current. <i>Carbon</i> , 2009 , 47, 670-674	10.4	11
157	Light emission and degradation of single-walled carbon nanotube filament. <i>Journal of Applied Physics</i> , 2005 , 98, 044306	2.5	11
156	High-Performance ITO-Free Perovskite Solar Cells Enabled by Single-Walled Carbon Nanotube Films. <i>Advanced Functional Materials</i> , 2021 , 31, 2104396	15.6	11
155	Defective graphene as a high-efficiency Raman enhancement substrate. <i>Journal of Materials Science and Technology</i> , 2019 , 35, 1996-2002	9.1	10
154	Oriented outperforms disorder: Thickness-independent mass transport for lithium-sulfur batteries. <i>Carbon</i> , 2019 , 154, 90-97	10.4	10
153	Bottom-Up Synthesis of 2D Transition Metal Carbides and Nitrides 2019 , 89-109		10
152	Synthesis of single-walled carbon nanotubes, their ropes and books. <i>Comptes Rendus Physique</i> , 2010 , 11, 349-354	1.4	10
151	Enhanced H-storage property in LiCoNi system by promoting ion migration. <i>Journal of Alloys and Compounds</i> , 2008 , 466, L1-L4	5.7	10
150	Probing quantum confinement of single-walled carbon nanotubes by resonant soft-x-ray emission spectroscopy. <i>Applied Physics Letters</i> , 2008 , 93, 023107	3.4	10
149	SYNTHESIS AND PROPERTIES OF ONE-DIMENSIONAL ALUMINUM NITRIDE NANOSTRUCTURES. <i>Nano</i> , 2007 , 02, 307-331	1.1	10
148	Confined van der Waals Epitaxial Growth of Two-Dimensional Large Single-Crystal InSe for Flexible Broadband Photodetectors. <i>Research</i> , 2019 , 2019, 2763704	7.8	10
147	Pushing the conductance and transparency limit of monolayer graphene electrodes for flexible organic light-emitting diodes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 25991-25998	11.5	10

146	Giant magneto-birefringence effect and tuneable colouration of 2D crystal suspensions. <i>Nature Communications</i> , 2020 , 11, 3725	17.4	10
145	An integrated thermoelectric-assisted photoelectrochemical system to boost water splitting. <i>Science Bulletin</i> , 2020 , 65, 1163-1169	10.6	10
144	UV-Epoxy-Enabled Simultaneous Intact Transfer and Highly Efficient Doping for Roll-to-Roll Production of High-Performance Graphene Films. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 40756-40763	8.5	10
143	Glue-assisted grinding exfoliation of large-size 2D materials for insulating thermal conduction and large-current-density hydrogen evolution. <i>Materials Today</i> , 2021 , 51, 145-145	21.8	10
142	Toward an Understanding of the Reversible Li-CO Batteries over Metal-N-Functionalized Graphene Electrocatalysts.. <i>ACS Nano</i> , 2021 ,	16.7	10
141	On Energy: Electrochemical capacitors: Capacitance, functionality, and beyond. <i>Energy Storage Materials</i> , 2017 , 9, A1-A3	19.4	9
140	Ultrafast Transition of Nonuniform Graphene to High-Quality Uniform Monolayer Films on Liquid Cu. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 17629-17636	9.5	9
139	Selective growth of semiconducting single-wall carbon nanotubes using SiC as a catalyst. <i>Carbon</i> , 2018 , 135, 195-201	10.4	9
138	A high tenacity electrode by assembly of a soft sorbent and a hard skeleton for lithium-sulfur batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 22459-22464	13	9
137	Effect of Li ₃ N additive on the hydrogen storage properties of Li-Mg-N-H system. <i>Journal of Materials Research</i> , 2009 , 24, 1936-1942	2.5	9
136	How long can single-walled carbon nanotube ropes last under static or dynamic fatigue?. <i>Applied Physics Letters</i> , 2008 , 92, 083105	3.4	9
135	Magnetic nanocables Silicon carbide sheathed with iron-oxide-doped amorphous silica. <i>Applied Physics Letters</i> , 2006 , 88, 043105	3.4	9
134	Solid catalytic growth mechanism of micro-coiled carbon fibers. <i>Science in China Series D: Earth Sciences</i> , 2001 , 44, 377-382		9
133	Anisotropic moiré optical transitions in twisted monolayer/bilayer phosphorene heterostructures. <i>Nature Communications</i> , 2021 , 12, 3947	17.4	9
132	H ₂ S + SO ₂ produces water-dispersed sulfur nanoparticles for lithium-sulfur batteries. <i>Nano Energy</i> , 2017 , 41, 665-673	17.1	8
131	Energy band edge alignment of anisotropic BiVO ₄ to drive photoelectrochemical hydrogen evolution. <i>Materials Today Energy</i> , 2019 , 13, 205-213	7	8
130	Graphene Distributed Amplifiers: Generating Desirable Gain for Graphene Field-Effect Transistors. <i>Scientific Reports</i> , 2015 , 5, 17649	4.9	8
129	Wall-number selective growth of vertically aligned carbon nanotubes from FePt catalysts: a comparative study with Fe catalysts. <i>Journal of Materials Chemistry</i> , 2012 , 22, 14149		8

128	Oxygen Deficient Li ₄ Ti ₅ O ₁₂ for High-rate Lithium Storage. <i>Journal of the Chinese Chemical Society</i> , 2012 , 59, 1201-1205	1.5	8
127	Observations of novel carbon nanotubes with multiple hollow cores. <i>Carbon</i> , 2003 , 41, 2477-2480	10.4	8
126	Hybridization with SiC particulates to control the fibre volume fraction and improve the longitudinal tensile strength of carbon fibre-reinforced aluminium composites. <i>Journal of Materials Science Letters</i> , 1991 , 10, 795-797		8
125	Preparation of metallic single-wall carbon nanotubes. <i>Carbon</i> , 2019 , 147, 187-198	10.4	8
124	Semiconductor nanochannels in metallic carbon nanotubes by thermomechanical chirality alteration.. <i>Science</i> , 2021 , 374, 1616-1620	33.3	8
123	WB crystals with oxidized surface as counter electrode in dye-sensitized solar cells. <i>Science Bulletin</i> , 2017 , 62, 114-118	10.6	7
122	Circular Graphene Platelets with Grain Size and Orientation Gradients Grown by Chemical Vapor Deposition. <i>Advanced Materials</i> , 2017 , 29, 1605451	24	7
121	Single-Atom Catalysts: Atomically Dispersed Transition Metals on Carbon Nanotubes with Ultrahigh Loading for Selective Electrochemical Carbon Dioxide Reduction (Adv. Mater. 13/2018). <i>Advanced Materials</i> , 2018 , 30, 1870088	24	7
120	Graphene Foams: Superhydrophobic Graphene Foams (Small 1/2013). <i>Small</i> , 2013 , 9, 2-2	11	7
119	Growth of tadpole-like carbon nanotubes from TiO ₂ nanoparticles. <i>Carbon</i> , 2013 , 55, 253-259	10.4	7
118	Metre-size single-crystal graphene becomes a reality. <i>Science Bulletin</i> , 2017 , 62, 1039-1040	10.6	7
117	Magnetotransport in Ultrathin 2-D Superconducting Mo ₂ C Crystals. <i>IEEE Transactions on Magnetics</i> , 2017 , 53, 1-4	2	7
116	Contamination-free and damage-free patterning of single-walled carbon nanotube transparent conductive films on flexible substrates. <i>Nanoscale</i> , 2011 , 3, 4571-4	7.7	7
115	A comparison between field-emission properties of three one-dimensional carbon materials. <i>Physica B: Condensed Matter</i> , 2007 , 396, 44-48	2.8	7
114	ZnO microcolumns originated from self-assembled nanorods. <i>Journal of Materials Science</i> , 2008 , 43, 17114-17157	1.3	7
113	PLATELET BORON NITRIDE NANOWIRES. <i>Nano</i> , 2006 , 01, 65-71	1.1	7
112	Graphitization-induced microstructural changes in tetrahydrofuran-derived pyrolytic carbon spheres. <i>Journal of Materials Research</i> , 2006 , 21, 2198-2203	2.5	7
111	Some indications of the formation mechanism for double-walled carbon nanotubes by hydrogen-arc discharge. <i>Carbon</i> , 2005 , 43, 2027-2030	10.4	7

110	Behaviour of carbon fibre reinforced Al ₃ Si composites after thermal exposure. <i>Materials Science and Technology</i> , 1992 , 8, 275-282	1.5	7
109	Catalyst-Free Growth of Atomically Thin Bi ₂ O ₂ Se Nanoribbons for High-Performance Electronics and Optoelectronics. <i>Advanced Functional Materials</i> , 2021 , 31, 2101170	15.6	7
108	Ultralight carbon fiber felt reinforced monolithic carbon aerogel composites with excellent thermal insulation performance. <i>Carbon</i> , 2021 , 183, 525-529	10.4	7
107	Micro-Macroscopic Coupled Electrode Architecture for High-Energy-Density Lithium/Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2019 , 2, 7393-7402	6.1	6
106	Production of carbon dots during the liquid phase exfoliation of MoS ₂ quantum dots. <i>Carbon</i> , 2019 , 155, 243-249	10.4	6
105	Synthesis of high quality nitrogen-doped single-wall carbon nanotubes. <i>Science China Materials</i> , 2015 , 58, 603-610	7.1	6
104	Chirality transitions and transport properties of individual few-walled carbon nanotubes as revealed by in situ TEM probing. <i>Ultramicroscopy</i> , 2018 , 194, 108-116	3.1	6
103	High-Performance Sub-Micrometer Channel WSe Field-Effect Transistors Prepared Using a Flood-Dike Printing Method. <i>ACS Nano</i> , 2017 , 11, 12536-12546	16.7	6
102	Enhancement of field emission of CNTs array by CO ₂ -assisted chemical vapor deposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 3046-51	1.3	6
101	A self-similar array model of single-walled carbon nanotubes. <i>Applied Physics Letters</i> , 2005 , 86, 203106	3.4	6
100	Effect of silicon additions on characteristics of carbon fiber reinforced aluminum composites during thermal exposure. <i>Journal of Materials Research</i> , 1996 , 11, 1284-1292	2.5	6
99	Lithium Batteries: The Regulating Role of Carbon Nanotubes and Graphene in Lithium/Iron and Lithium/Sulfur Batteries (Adv. Mater. 9/2019). <i>Advanced Materials</i> , 2019 , 31, 1970066	24	6
98	Stress release in high-capacity flexible lithium-ion batteries through nested wrinkle texturing of graphene. <i>Journal of Energy Chemistry</i> , 2021 , 61, 243-249	12	6
97	Hierarchical urchin-like amorphous carbon with Co-adding anchored on nickel foam: A free-standing electrode for advanced asymmetrical supercapacitors and adsorbed Pb (II). <i>Journal of Colloid and Interface Science</i> , 2021 , 603, 58-69	9.3	6
96	Atomic-Scale Design of Anode Materials for Alkali Metal (Li/Na/K)-Ion Batteries: Progress and Perspectives. <i>Advanced Energy Materials</i> , 2020 , 10, 2200662	21.8	6
95	A carbon nanotube non-volatile memory device using a photoresist gate dielectric. <i>Carbon</i> , 2017 , 124, 700-707	10.4	5
94	Effects of domain structures on vortex state of two-dimensional superconducting Mo ₂ C crystals. <i>2D Materials</i> , 2019 , 6, 021005	5.9	5
93	Homogeneous boron doping in a TiO ₂ shell supported on a TiB ₂ core for enhanced photocatalytic water oxidation. <i>Chinese Journal of Catalysis</i> , 2018 , 39, 431-437	11.3	5

92	Ultrafast linear dichroism-like absorption dynamics in graphene grown by chemical vapor deposition. <i>Journal of Applied Physics</i> , 2014 , 115, 203701	2.5	5
91	Lithium Storage Characteristics and Possible Applications of Graphene Materials. <i>Acta Chimica Sinica</i> , 2014 , 72, 333	3.3	5
90	Ti-Zr-O nanotube arrays with controlled morphology, crystal structure and optical properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 6501-10	1.3	5
89	Confined van der Waals Epitaxial Growth of Two-Dimensional Large Single-Crystal In ₂ Se ₃ for Flexible Broadband Photodetectors. <i>Research</i> , 2019 , 2019, 1-10	7.8	5
88	Transport Properties of Topological Semimetal Tungsten Carbide in the 2D Limit. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800839	6.4	5
87	Controllable edge modification of multi-layer graphene for improved dispersion stability and high electrical conductivity. <i>Applied Nanoscience (Switzerland)</i> , 2019 , 9, 469-477	3.3	5
86	High-performance flexible resistive random access memory devices based on graphene oxidized with a perpendicular oxidation gradient. <i>Nanoscale</i> , 2021 , 13, 2448-2455	7.7	5
85	A Scalable Artificial Neuron Based on Ultrathin Two-Dimensional Titanium Oxide. <i>ACS Nano</i> , 2021 , 15, 15123-15131	16.7	5
84	Patterning of Wafer-scale MXene Films for High-performance Image Sensor Arrays.. <i>Advanced Materials</i> , 2022 , e2201298	24	5
83	LiS Batteries: A Flexible Sulfur-Graphene-Polypropylene Separator Integrated Electrode for Advanced LiS Batteries (Adv. Mater. 4/2015). <i>Advanced Materials</i> , 2015 , 27, 590-590	24	4
82	Growth of nanocarbons by catalysis and their applications. <i>MRS Bulletin</i> , 2017 , 42, 790-793	3.2	4
81	Controlled growth of two-dimensional single-crystal hafnia networks by surface modulation. <i>Nanotechnology</i> , 2006 , 17, 1207-1211	3.4	4
80	Effect of geometrical parameters on the field-emission properties of single-walled carbon nanotube ropes. <i>Journal of Materials Research</i> , 2003 , 18, 2188-2193	2.5	4
79	MICROSTRUCTURE AND RESISTIVITY OF CARBON NANOTUBE AND NANOFIBER/EPOXY MATRIX NANOCOMPOSITE. <i>International Journal of Nanoscience</i> , 2002 , 01, 719-723	0.6	4
78	Uniform polypyrrole electrodeposition triggered by phytic acid-guided interface engineering for high energy density flexible supercapacitor.. <i>Journal of Colloid and Interface Science</i> , 2021 , 611, 356-365	9.3	4
77	Metallic Co and crystalline Co-Mo oxides supported on graphite felt for bifunctional electrocatalytic hydrogen evolution and urea oxidation.. <i>Journal of Colloid and Interface Science</i> , 2021 , 612, 413-423	9.3	4
76	Distinct superconducting properties and hydrostatic pressure effects in 2D Hf and Mo ₂ C crystal sheets. <i>NPG Asia Materials</i> , 2020 , 12,	10.3	4
75	Insights into the effect of chemical treatment on the physicochemical characteristics and adsorption behavior of pig manure-derived biochars. <i>Environmental Science and Pollution Research</i> , 2019 , 26, 1962-1972	5.1	4

74	Six-membered-ring inorganic materials: definition and prospects. <i>National Science Review</i> , 2021 , 8, nwaaz48	4	
73	Realization of a non-markov chain in a single 2D mineral RRAM. <i>Science Bulletin</i> , 2021 , 66, 1634-1640	10.6	4
72	A flexible nickel phthalocyanine resistive random access memory with multi-level data storage capability. <i>Journal of Materials Science and Technology</i> , 2021 , 86, 151-157	9.1	4
71	Iron-doped NiS microcrystals with exposed {001} facets for electrocatalytic water oxidation. <i>Journal of Colloid and Interface Science</i> , 2022 , 608, 599-604	9.3	4
70	Carrier Trapping in Wrinkled 2D Monolayer MoS for Ultrathin Memory.. <i>ACS Nano</i> , 2022 ,	16.7	4
69	Tunable In Situ Stress and Spontaneous Microwrinkling of Multiscale Heterostructures. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 26041-26046	3.8	3
68	Fatigue Behaviour of Unidirectional Single-Walled Carbon Nanotube Reinforced Epoxy Composite under Tensile Load. <i>Advanced Composites Letters</i> , 2003 , 12, 096369350301200	1.2	3
67	Fractal effects on the measurement of the specific surface areas of single-walled carbon nanotubes. <i>Carbon</i> , 2005 , 43, 1785-1787	10.4	3
66	Packing-dependent pore structures in single-walled carbon nanotube arrays. <i>Applied Physics Letters</i> , 2005 , 87, 243109	3.4	3
65	Controlling field-emission patterns of isolated single-walled carbon nanotube rope. <i>Applied Physics Letters</i> , 2005 , 87, 043114	3.4	3
64	Evaluation of diameter distribution of inside cavities of open CNTs by analyses of nitrogen cryo-adsorption isotherm. <i>Science Bulletin</i> , 2001 , 46, 1317-1320		3
63	Two-Dimensional Functional Minerals as Sustainable Materials for Optics.. <i>Advanced Materials</i> , 2022 , e2110464	24	3
62	3D Printed Template-Directed Assembly of Multiscale Graphene Structures. <i>Advanced Functional Materials</i> , 2105879	15.6	3
61	Ultrastable Interfacial Contacts Enabling Unimpeded Charge Transfer and Ion Diffusion in Flexible Lithium-Ion Batteries.. <i>Advanced Science</i> , 2022 , e2105419	13.6	3
60	Electrochemical Deposition of a Single-Crystalline Nanorod Polycyclic Aromatic Hydrocarbon Film with Efficient Charge and Exciton Transport.. <i>Angewandte Chemie - International Edition</i> , 2021 ,	16.4	3
59	Synthesis of Carbon Nanotubes by Floating Catalyst Chemical Vapor Deposition and Their Applications. <i>Advanced Functional Materials</i> , 2108541	15.6	3
58	Superhigh Uniform Magnetic Cr Substitution in a 2D Mo C Superconductor for a Macroscopic-Scale Kondo Effect. <i>Advanced Materials</i> , 2020 , 32, e2002825	24	3
57	Fabrication of Large Aerogel-Like Carbon/Carbon Composites with Excellent Load-Bearing Capacity and Thermal-Insulating Performance at 1800 °C.. <i>ACS Nano</i> , 2022 ,	16.7	3

56	Electrochemical Capacitors with Confined Redox Electrolytes and Porous Electrodes.. <i>Advanced Materials</i> , 2022 , e2202380	24	3
55	Supercapacitors: Silica-Mediated Formation of Nickel Sulfide Nanosheets on CNT Films for Versatile Energy Storage (Small 15/2019). <i>Small</i> , 2019 , 15, 1970081	11	2
54	Graphene for Flexible Lithium-Ion Batteries: Development and Prospects 2015 , 119-177		2
53	Mechanical-electro-magnetic coupling in strained bilayer CrI ₃ . <i>Science China Technological Sciences</i> , 2020 , 63, 1265-1271	3.5	2
52	Electrochemical stability of graphene cathode for high-voltage lithium ion capacitors. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2016 , 11, 407-414	1.3	2
51	Honeycomb-like single-wall carbon nanotube networks. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 3308-3311	3.1	2
50	Fabrication of a large-area, flexible and color-neutral single-wall carbon nanotube:sodium dodecylbenzene sulfonate/poly-(3,4-ethylenedioxythiophene):poly(4-styrenesulfonate) transparent conductive film having a new conduction mechanism. <i>Carbon</i> , 2014 , 80, 112-119	10.4	2
49	An ultrathin and highly efficient interlayer for Lithium-Sulfur batteries with high sulfur loading and lean electrolyte. <i>Journal of Materials Chemistry A</i> ,	13	2
48	Construction of sandwich-structured C/C-SiC and C/C-SiC-ZrC composites with good mechanical and anti-ablation properties. <i>Journal of the European Ceramic Society</i> , 2021 ,	6	2
47	Reconstructed transparent conductive layers of fluorine doped tin oxide for greatly weakened hysteresis and improved efficiency of perovskite solar cells. <i>Chemical Communications</i> , 2019 , 56, 129-132	5.8	2
46	Independent thickness and lateral size sorting of two-dimensional materials. <i>Science China Materials</i> , 2021 , 64, 2739-2746	7.1	2
45	Lithium Anodes: An Anion-Tuned Solid Electrolyte Interphase with Fast Ion Transfer Kinetics for Stable Lithium Anodes (Adv. Energy Mater. 14/2020). <i>Advanced Energy Materials</i> , 2020 , 10, 2070063	21.8	2
44	Response of microorganisms to phosphate nanoparticles in Pb polluted sediment: Implications of Pb bioavailability, enzyme activities and bacterial community. <i>Chemosphere</i> , 2022 , 286, 131643	8.4	2
43	An Interlayer Containing Dissociated LiNO ₃ with Fast Release Speed for Stable Lithium Metal Batteries with 400 Wh kg ⁻¹ Energy Density. <i>Small</i> , 2202349	11	2
42	Electric Double Layer: A Desolvated Solid-Solid Interface for a High-Capacitance Electric Double Layer (Adv. Energy Mater. 12/2019). <i>Advanced Energy Materials</i> , 2019 , 9, 1970037	21.8	1
41	The importance of H ₂ in the controlled growth of semiconducting single-wall carbon nanotubes. <i>Journal of Materials Science and Technology</i> , 2020 , 54, 105-111	9.1	1
40	Transport through a network of two-dimensional NbC superconducting crystals connected via weak links. <i>Physical Review B</i> , 2020 , 101,	3.3	1
39	Defect and interlayer coupling tuned quasiparticle scattering in 2D disordered Mo ₂ C superconducting microcrystals. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 434002	3	1

38	Photocatalysis: ZnO@CdS@Cd Heterostructure for Effective Photocatalytic Hydrogen Generation (Adv. Energy Mater. 1/2012). <i>Advanced Energy Materials</i> , 2012 , 2, 2-2	21.8	1
37	Development of graphene-based materials for energy storage 2010 ,		1
36	Raman Spectroscopy on Double-Walled Carbon Nanotubes 2008 , 29-39		1
35	Standard enthalpies of formation of finite-length (5, 5) single-walled carbon nanotube. <i>Journal of Nanoparticle Research</i> , 2008 , 10, 1037-1043	2.3	1
34	Carbon nanotubes enhanced hydrogen ab/desorption in Magnesium-based nanocomposites 2006 ,		1
33	Shaping different carbon nano- and submicro-structures by alcohol chemical vapor deposition. <i>Journal of Materials Research</i> , 2006 , 21, 2504-2509	2.5	1
32	Oxidation of Carbon/B4C/SiC/ZrB2 Composite in Moist Air at Elevated Temperature and the Thermodynamic Consideration. <i>Journal of the Ceramic Society of Japan</i> , 1994 , 102, 925-929		1
31	Lignocellulosic biomass derived N-doped and CoO-loaded carbocatalyst used as highly efficient peroxymonosulfate activator for ciprofloxacin degradation.. <i>Journal of Colloid and Interface Science</i> , 2021 , 610, 221-233	9.3	1
30	High-throughput screening and machine learning for the efficient growth of high-quality single-wall carbon nanotubes. <i>Nano Research</i> , 1	10	1
29	Largely Tunable Magneto-Coloration of Monolayer 2D Materials via Size Tailoring. <i>ACS Nano</i> , 2021 , 15, 9445-9452	16.7	1
28	Fabrication of high-conductivity RGO film at a temperature lower than 1500 °C by electrical current. <i>Journal of Materials Science: Materials in Electronics</i> , 2021 , 32, 11727-11736	2.1	1
27	Breaking the Rate-Integrity Dilemma in Large-Area Bubbling Transfer of Graphene by Strain Engineering. <i>Advanced Functional Materials</i> , 2021 , 31, 2104228	15.6	1
26	Flexible organic photodetectors and their use in wearable systems 2021 , 103145		1
25	Superconductivity and High-Pressure Performance of 2D MoC Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 2219-2225	6.4	1
24	Lithium Metal Batteries: Ion-Dipole Chemistry Drives Rapid Evolution of Li Ions Solvation Sheath in Low-Temperature Li Batteries (Adv. Energy Mater. 28/2021). <i>Advanced Energy Materials</i> , 2021 , 11, 2170112	21.8	1
23	Collective Behavior Induced Highly Sensitive Magneto-Optic Effect in 2D Inorganic Liquid Crystals. <i>Journal of the American Chemical Society</i> , 2021 , 143, 12886-12893	16.4	1
22	Nanoribbons: Catalyst-Free Growth of Atomically Thin Bi2O2Se Nanoribbons for High-Performance Electronics and Optoelectronics (Adv. Funct. Mater. 31/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170230	15.6	1
21	Magnetic Doping Induced Superconductivity-to-Incommensurate Density Waves Transition in a 2D Ultrathin Cr-Doped MoC Crystal. <i>ACS Nano</i> , 2021 , 15, 14938-14946	16.7	1

20	A 2D material-based transparent hydrogel with engineerable interference colours.. <i>Nature Communications</i> , 2022 , 13, 1212	17.4	1
19	Enhancing hydrogen peroxide activation of CuCo layered double hydroxide by compositing with biochar: Performance and mechanism.. <i>Science of the Total Environment</i> , 2022 , 154188	10.2	1
18	In-situ imaging techniques for advanced battery development. <i>Materials Today</i> , 2022 ,	21.8	1
17	Effect of C/SiC Volume Ratios on Mechanical and Oxidation Behaviors of Cf/CB ₂ C Composites Fabricated by Chemical Vapor Infiltration Technique. <i>Acta Metallurgica Sinica (English Letters)</i> , 2022 , 35, 801	2.5	0
16	Accurate structural descriptor enabled screening for nitrogen and oxygen vacancy codoped TiO ₂ with a large bandgap narrowing. <i>Journal of Materials Science and Technology</i> , 2022 , 122, 84-90	9.1	0
15	Fabrication of Large-Area Uniform Nanometer-Thick Functional Layers and Their Stacks for Flexible Quantum Dot Light-Emitting Diodes.. <i>Small Methods</i> , 2022 , 6, e2101030	12.8	0
14	2D Functional Minerals as Sustainable Materials for Magneto-Optics (Adv. Mater. 16/2022). <i>Advanced Materials</i> , 2022 , 34, 2270124	24	0
13	Potential link between structure of iron catalyst and Fenton-like performance: from fundamental understanding to engineering design. <i>Journal of Materials Chemistry A</i> ,	13	0
12	Tailoring microstructures of carbon fiber reinforced carbon aerogel-like matrix composites by carbonization to modulate their mechanical properties and thermal conductivities. <i>Carbon</i> , 2022 , 196, 807-818	10.4	0
11	Arch-inspired super-elastic carbon materials. <i>National Science Review</i> , 2018 , 5, 3-4	10.8	
10	Mobility controlled linear magnetoresistance with 3D anisotropy in a layered graphene pallet. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 425005	3	
9	SYNTHESIS AND CHARACTERIZATION OF CARBON NANOTUBES FOR HYDROGEN STORAGE. <i>Series on Chemical Engineering</i> , 2004 , 263-316	1.5	
8	Microstructure of Silicon Nitride Ceramics and Morphology of Surface Damage Induced by Round Indenter. <i>Journal of the Ceramic Society of Japan</i> , 1994 , 102, 350-354		
7	Effect of SiO ₂ Type and Additives on the Reaction Products in SiO ₂ -Al-C-N ₂ System. <i>Journal of the Ceramic Society of Japan</i> , 1994 , 102, 675-679		
6	Synthesis and Properties of Quasi-One-Dimensional Nitride Nanostructures 2008 , 149-177		
5	Interface Design of Carbon Nano-Materials for Energy Storage 2008 , 41-47		
4	Effect of Mn And Zr on Hydrogen Absorption in Mg-Based Nanocomposites. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008 , 497-502	0.3	
3	Densification of MXene films by sequential bridging.. <i>National Science Review</i> , 2022 , 9, nwab195	10.8	

2 Controlled Shaping TiO₂ for Efficient Photocatalysis **2012**, 43-72

1 Resonant Scattering in Proximity-Coupled Graphene/Superconducting Mo₂C Heterostructures.
Advanced Science, 2013, 43

13.6