Yiyong Mai

List of Publications by Year in descending order

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116 papers	9,681 citations	50273 46 h-index	37202 96 g-index
119 all docs	119 docs citations	119 times ranked	12179 citing authors

#	Article	IF	Citations
1	Self-assembly of block copolymers. Chemical Society Reviews, 2012, 41, 5969.	38.1	2,933
2	Twoâ€Dimensional Soft Nanomaterials: A Fascinating World of Materials. Advanced Materials, 2015, 27, 403-427.	21.0	437
3	Ultrathin Metalâ€“Organic Framework Nanosheets with Ultrahigh Loading of Single Pt Atoms for Efficient Visibleâ€Lightâ€Driven Photocatalytic H₂ Evolution. Angewandte Chemie - International Edition, 2019, 58, 10198-10203.	13.8	404
4	Porous carbon nanosheets: Synthetic strategies and electrochemical energy related applications. Nano Today, 2019, 24, 103-119.	11.9	357
5	Self-assembly of block copolymers towards mesoporous materials for energy storage and conversion systems. Chemical Society Reviews, 2020, 49, 4681-4736.	38.1	311
6	Patterning two-dimensional free-standing surfaces with mesoporous conducting polymers. Nature Communications, 2015, 6, 8817.	12.8	193
7	Self-Assembly of Large Multimolecular Micelles from Hyperbranched Star Copolymers. Macromolecular Rapid Communications, 2007, 28, 591-596.	3.9	182
8	Dualâ€Template Synthesis of 2D Mesoporous Polypyrrole Nanosheets with Controlled Pore Size. Advanced Materials, 2016, 28, 8365-8370.	21.0	163
9	Superhydrophobic and superoleophilic graphene aerogel prepared by facile chemical reduction. Journal of Materials Chemistry A, 2015, 3, 7498-7504.	10.3	160
10	Controlled Incorporation of Particles into the Central Portion of Vesicle Walls. Journal of the American Chemical Society, 2010, 132, 10078-10084.	13.7	153
11	Twoâ€Dimensional MXeneâ€Polymer Heterostructure with Ordered Inâ€Plane Mesochannels for Highâ€Performance Capacitive Deionization. Angewandte Chemie - International Edition, 2021, 60, 26528-26534.	13.8	147
12	Selective Localization of Preformed Nanoparticles in Morphologically Controllable Block Copolymer Aggregates in Solution. Accounts of Chemical Research, 2012, 45, 1657-1666.	15.6	144
13	Synthesis and Size-Controllable Self-Assembly of a Novel Amphiphilic Hyperbranched Multiarm Copolyether. Macromolecules, 2005, 38, 8679-8686.	4.8	124
14	Quantitative Control of Pore Size of Mesoporous Carbon Nanospheres through the Selfâ€Assembly of Diblock Copolymer Micelles in Solution. Small, 2016, 12, 3155-3163.	10.0	117
15	Tunable Selfâ€Assembly of Diblock Copolymers into Colloidal Particles with Triply Periodic Minimal Surfaces. Angewandte Chemie - International Edition, 2017, 56, 7135-7140.	13.8	117
16	Multicompartment Micelles from Hyperbranched Star-Block Copolymers Containing Polycations and Fluoropolymer Segment. Langmuir, 2007, 23, 5127-5134.	3.5	107
17	Highly Crumpled Hybrids of Nitrogen/Sulfur Dual-Doped Graphene and Co₉S₈ Nanoplates as Efficient Bifunctional Oxygen Electrocatalysts. ACS Applied Materials & Interfaces, 2017, 9, 12340-12347.	8.0	105
18	Synthesis and supramolecular selfâ€assembly of thermosensitive amphiphilic star copolymers based on a hyperbranched polyether core. Journal of Polymer Science Part A, 2008, 46, 668-681.	2.3	97

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19	A Supramolecularâ€Based Dualâ€Wavelength Phototherapeutic Agent with Broadâ€Spectrum Antimicrobial Activity Against Drugâ€Resistant Bacteria. Angewandte Chemie - International Edition, 2020, 59, 3658-3664.	13.8	94
20	Bio-based green composites with high performance from poly(lactic acid) and surface-modified microcrystalline cellulose. Journal of Materials Chemistry, 2012, 22, 15732.	6.7	93
21	Honeycomb-Structured Microporous Films Made from Hyperbranched Polymers by the Breath Figure Method. Langmuir, 2009, 25, 173-178.	3.5	92
22	Twoâ€Dimensional Mesoscaleâ€Ordered Conducting Polymers. Angewandte Chemie - International Edition, 2016, 55, 12516-12521.	13.8	89
23	General Interfacial Selfâ€Assembly Engineering for Patterning Twoâ€Dimensional Polymers with Cylindrical Mesopores on Graphene. Angewandte Chemie - International Edition, 2019, 58, 10173-10178.	13.8	85
24	Poly(ethylene oxide) Functionalized Graphene Nanoribbons with Excellent Solution Processability. Journal of the American Chemical Society, 2016, 138, 10136-10139.	13.7	83
25	Real-Time Hierarchical Self-Assembly of Large Compound Vesicles from an Amphiphilic Hyperbranched Multiarm Copolymer. Small, 2007, 3, 1170-1173.	10.0	79
26	Controlled Incorporation of Particles into the Central Portion of Block Copolymer Rods and Micelles. Macromolecules, 2011, 44, 3179-3183.	4.8	75
27	Patterning Graphene Surfaces with Ironâ€Oxideâ€Embedded Mesoporous Polypyrrole and Derived Nâ€Doped Carbon of Tunable Pore Size. Small, 2018, 14, 1702755.	10.0	73
28	Ultrathin Metalâ€“Organic Framework Nanosheets with Ultrahigh Loading of Single Pt Atoms for Efficient Visibleâ€Lightâ€Driven Photocatalytic H₂ Evolution. Angewandte Chemie, 2019, 131, 10304-10309.	2.0	68
29	All-organic covalent organic framework/polyaniline composites as stable electrode for high-performance supercapacitors. Materials Letters, 2019, 236, 354-357.	2.6	68
30	Nitrogen-doped carbon nanosheets and nanoflowers with holey mesopores for efficient oxygen reduction catalysis. Journal of Materials Chemistry A, 2018, 6, 10354-10360.	10.3	66
31	Facile template-free synthesis of vertically aligned polypyrrole nanosheets on nickel foams for flexible all-solid-state asymmetric supercapacitors. Nanoscale, 2016, 8, 8650-8657.	5.6	64
32	Effect of Reaction Temperature on Degree of Branching in Cationic Polymerization of 3-Ethyl-3-(hydroxymethyl)oxetane. Macromolecules, 2003, 36, 9667-9669.	4.8	63
33	Temperature-Dependent Multidimensional Self-Assembly of Polyphenylene-Based â€œRodâ€“Coilâ€•Graft Polymers. Journal of the American Chemical Society, 2015, 137, 11602-11605.	13.7	63
34	Synthesis of core-shell covalent organic frameworks/multi-walled carbon nanotubes nanocomposite and application in lithium-sulfur batteries. Materials Letters, 2018, 213, 143-147.	2.6	62
35	A two-dimensional hybrid with molybdenum disulfide nanocrystals strongly coupled on nitrogen-enriched graphene via mild temperature pyrolysis for high performance lithium storage. Nanoscale, 2014, 6, 14679-14685.	5.6	61
36	Nitrogen-enriched hierarchically porous carbon materials fabricated by graphene aerogel templated Schiff-base chemistry for high performance electrochemical capacitors. Polymer Chemistry, 2015, 6, 1088-1095.	3.9	58

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37	Facile synthesis of bowl-shaped nitrogen-doped carbon hollow particles templated by block copolymer â€œkippah vesiclesâ€•for high performance supercapacitors. Polymer Chemistry, 2016, 7, 2092-2098.	3.9	58
38	Effect of the Degree of Branching on Atomic-Scale Free Volume in Hyperbranched Poly[3-ethyl-3-(hydroxymethyl)oxetane]. A Positron Study. Macromolecules, 2005, 38, 9644-9649.	4.8	57
39	Core-shell nanostructure of single-wall carbon nanotubes and covalent organic frameworks for supercapacitors. Chinese Chemical Letters, 2017, 28, 2269-2273.	9.0	57
40	A single-ion conducting hyperbranched polymer as a high performance solid-state electrolyte for lithium ion batteries. Chemical Communications, 2019, 55, 6715-6718.	4.1	57
41	Metalâ€“Nitrogen Doping of Mesoporous Carbon/Graphene Nanosheets by Selfâ€Templating for Oxygen Reduction Electrocatalysts. ChemSusChem, 2014, 7, 3002-3006.	6.8	52
42	Supramolecular Nanostructures of Structurally Defined Graphene Nanoribbons in the Aqueous Phase. Angewandte Chemie - International Edition, 2018, 57, 3366-3371.	13.8	52
43	Experimental Observation of Strong Exciton Effects in Graphene Nanoribbons. Nano Letters, 2020, 20, 2993-3002.	9.1	52
44	A Curved Graphene Nanoribbon with Multi-Edge Structure and High Intrinsic Charge Carrier Mobility. Journal of the American Chemical Society, 2020, 142, 18293-18298.	13.7	50
45	Waterâ€insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie - International Edition, 2020, 59, 7240-7244.	13.8	50
46	Highly oriented macroporous graphene hybrid monoliths for lithium ion battery electrodes with ultrahigh capacity and rate capability. Nano Energy, 2015, 12, 287-295.	16.0	48
47	Intrinsic Properties of Single Graphene Nanoribbons in Solution: Synthetic and Spectroscopic Studies. Journal of the American Chemical Society, 2018, 140, 10416-10420.	13.7	48
48	A dual-boron-cored luminogen capable of sensing and imaging. Chemical Communications, 2015, 51, 5298-5301.	4.1	47
49	Growth of 2D Mesoporous Polyaniline with Controlled Pore Structures on Ultrathin MoS₂ Nanosheets by Block Copolymer Self-Assembly in Solution. ACS Applied Materials & Interfaces, 2017, 9, 43975-43982.	8.0	46
50	Ordered Bicontinuous Mesoporous Polymeric Semiconductor Photocatalyst. ACS Nano, 2020, 14, 13652-13662.	14.6	45
51	One-Pot Synthesis of Amphiphilic Coreâ^'Shell Suprabranched Macromolecules. Macromolecules, 2004, 37, 6264-6267.	4.8	44
52	Synthesis and Characterization of Macroporous Photonic Structure that Consists of Azimuthally Shifted Double-Diamond Silica Frameworks. Chemistry of Materials, 2014, 26, 7020-7028.	6.7	44
53	Two-Dimensional Sandwich-Structured Mesoporous Mo₂C/Carbon/Graphene Nanohybrids for Efficient Hydrogen Production Electrocatalysts. ACS Applied Materials & Interfaces, 2018, 10, 40800-40807.	8.0	44
54	Synthetic Engineering of Graphene Nanoribbons with Excellent Liquid-Phase Processability. Trends in Chemistry, 2019, 1, 549-558.	8.5	44

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55	â€œRodâ€“coilâ€•copolymers get self-assembled in solution. Materials Chemistry Frontiers, 2019, 3, 2283-2307.	5.9	41
56	The ordered mesoporous carbon coated graphene as a high-performance broadband microwave absorbent. Carbon, 2021, 179, 435-444.	10.3	41
57	Polymer-directed synthesis of metal oxide-containing nanomaterials for electrochemical energy storage. Nanoscale, 2014, 6, 106-121.	5.6	40
58	Multi-Dimensional Self-Assembly of a Dual-Responsive ABC Miktoarm Star Terpolymer. ACS Macro Letters, 2017, 6, 426-430.	4.8	38
59	Cross-linked polymer-derived B/N co-doped carbon materials with selective capture of CO2. Journal of Materials Chemistry A, 2015, 3, 23352-23359.	10.3	36
60	Tunable Superstructures of Dendronized Graphene Nanoribbons in Liquid Phase. Journal of the American Chemical Society, 2019, 141, 10972-10977.	13.7	36
61	Twoâ€Dimensional MXeneâ€Polymer Heterostructure with Ordered Inâ€Plane Mesochannels for Highâ€Performance Capacitive Deionization. Angewandte Chemie, 2021, 133, 26732-26738.	2.0	35
62	Recent advances in the solution selfâ€assembly of amphiphilic â€œrodâ€•coilâ€•copolymers. Journal of Polymer Science Part A, 2017, 55, 1459-1477.	2.3	34
63	Synthesis of novel multi-arm star azobenzene side-chain liquid crystalline copolymers with a hyperbranched core. European Polymer Journal, 2004, 40, 1759-1765.	5.4	32
64	Softâ€Template Construction of 3D Macroporous Polypyrrole Scaffolds. Small, 2017, 13, 1604099.	10.0	31
65	Crystallization-Driven Two-Dimensional Self-Assembly of Amphiphilic PCL-b-PEO Coated Gold Nanoparticles in Aqueous Solution. ACS Macro Letters, 2018, 7, 1062-1067.	4.8	31
66	Two-Dimensional Interface Engineering of Mesoporous Polydopamine on Graphene for Novel Organic Cathodes. ACS Applied Energy Materials, 2019, 2, 5816-5823.	5.1	31
67	Morphological Control in Aggregates of Amphiphilic Cylindrical Metalâ€“Polymer â€œBrushesâ€• Macromolecules, 2013, 46, 3183-3189.	4.8	30
68	Tunable Selfâ€Assembly of Diblock Copolymers into Colloidal Particles with Triply Periodic Minimal Surfaces. Angewandte Chemie, 2017, 129, 7241-7246.	2.0	30
69	High-performance lithium sulfur batteries based on nitrogen-doped graphitic carbon derived from covalent organic frameworks. Materials Today Energy, 2018, 7, 141-148.	4.7	30
70	Graphene, other carbon nanomaterials and the immune system: toward nanoimmunity-by-design. JPhys Materials, 2020, 3, 034009.	4.2	29
71	Solution Self-Assembly of an Alternating Copolymer toward Hollow Carbon Nanospheres with Uniform Micropores. ACS Macro Letters, 2019, 8, 331-336.	4.8	28
72	Effect of Side Chains on the Low-Dimensional Self-Assembly of Polyphenylene-Based â€œRodâ€“Coilâ€•Graft Copolymers in Solution. Macromolecules, 2018, 51, 161-172.	4.8	27

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73	Mesoporous Mo₂C/Carbon Hybrid Nanotubes Synthesized by a Dual-Template Self-Assembly Approach for an Efficient Hydrogen Production Electrocatalyst. Langmuir, 2018, 34, 10924-10931.	3.5	27
74	Single-Metal-Atom Polymeric Unimolecular Micelles for Switchable Photocatalytic H ₂ Evolution. CCS Chemistry, 2021, 3, 1963-1971.	7.8	27
75	General Interfacial Selfâ€Assembly Engineering for Patterning Twoâ€Dimensional Polymers with Cylindrical Mesopores on Graphene. Angewandte Chemie, 2019, 131, 10279-10284.	2.0	25
76	Double diamond structured bicontinuous mesoporous titania templated by a block copolymer for anode material of lithium-ion battery. Nano Research, 2021, 14, 992-997.	10.4	25
77	Porphyrin-Based Conjugated Microporous Polymer Tubes: Template-Free Synthesis and A Photocatalyst for Visible-Light-Driven Thiocyanation of Anilines. Macromolecules, 2021, 54, 3543-3553.	4.8	25
78	Quantitative dependence of crystallinity on degree of branching for hyperbranched poly[3-ethyl-3-(hydroxymethyl)oxetane]. New Journal of Physics, 2005, 7, 42-42.	2.9	24
79	Emulsionâ€Guided Controllable Construction of Anisotropic Particles: Droplet Size Determines Particle Structure. Advanced Materials, 2021, 33, e2102930.	21.0	24
80	Pore Engineering of 2D Mesoporous Nitrogenâ€Doped Carbon on Graphene through Block Copolymer Selfâ€Assembly. Advanced Materials Interfaces, 2019, 6, 1901476.	3.7	23
81	Degradation of Structurally Defined Graphene Nanoribbons by Myeloperoxidase and the Photoâ€Fenton Reaction. Angewandte Chemie - International Edition, 2020, 59, 18515-18521.	13.8	23
82	Disk-like micelles with cylindrical pores from amphiphilic polypeptide block copolymers. Polymer Chemistry, 2016, 7, 2815-2820.	3.9	22
83	Formation of Diverse Ordered Structures in ABC Triblock Terpolymer Templated Macroporous Silicas. Macromolecules, 2018, 51, 4381-4396.	4.8	22
84	Twoâ€Dimensional Mesoscaleâ€Ordered Conducting Polymers. Angewandte Chemie, 2016, 128, 12704-12709.	2.0	21
85	Bipolar nitrogen-doped graphene frameworks as high-performance cathodes for lithium ion batteries. Journal of Materials Chemistry A, 2017, 5, 1588-1594.	10.3	21
86	Resolving Quinoid Structure in Poly(para-phenylene) Chains. Journal of the American Chemical Society, 2020, 142, 10034-10041.	13.7	20
87	Bowl-shaped NiCo2O4 nanosheet clusters as electrode materials for high-performance asymmetric supercapacitors. Science China Materials, 2020, 63, 2456-2464.	6.3	19
88	A Supramolecularâ€Based Dualâ€Wavelength Phototherapeutic Agent with Broadâ€Spectrum Antimicrobial Activity Against Drugâ€Resistant Bacteria. Angewandte Chemie, 2020, 132, 3687-3693.	2.0	18
89	Preparation and characterization of the crystalline inclusion complexes of Î±- and Î³-cyclodextrins with poly(butylene carbonate). Colloid and Polymer Science, 2003, 281, 267-274.	2.1	17
90	Graphene nanoribbon-based supramolecular ensembles with dual-receptor targeting function for targeted photothermal tumor therapy. Chemical Science, 2021, 12, 11089-11097.	7.4	16

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91	Poly(ionic liquid)-based polymer composites as high-performance solid-state electrolytes: benefiting from nanophase separation and alternating polymer architecture. Chemical Communications, 2020, 56, 7929-7932.	4.1	15
92	Controlled Synthesis of Porous Carbon Nanostructures with Tunable Closed Mesopores via a Silica-Assisted Coassembly Strategy. CCS Chemistry, 2021, 3, 1410-1422.	7.8	15
93	Ultra-large sheet formation by 1D to 2D hierarchical self-assembly of a â€œrodâ€“coilâ€graft copolymer with a polyphenylene backbone. Polymer Chemistry, 2016, 7, 1234-1238.	3.9	13
94	Sulfur-Doped Nanographenes Containing Multiple Subhelicenes. Organic Letters, 2021, 23, 2069-2073.	4.6	13
95	Multi-template synthesis of hierarchically porous carbon spheres with potential application in supercapacitors. RSC Advances, 2016, 6, 111406-111414.	3.6	12
96	Supramolecular Nanostructures of Structurally Defined Graphene Nanoribbons in the Aqueous Phase. Angewandte Chemie, 2018, 130, 3424-3429.	2.0	12
97	A supramolecular single-site photocatalyst based on multi-to-one FÃ¶rster resonance energy transfer. Chemical Communications, 2021, 57, 4174-4177.	4.1	12
98	Control of pore size in mesoporous silica templated by a multiarm hyperbranched copolyether in water and cosolvent. Microporous and Mesoporous Materials, 2008, 114, 222-228.	4.4	11
99	Tunable low-dimensional self-assembly of H-shaped bichromophoric perylenediimide Gemini in solution. Nanoscale, 2020, 12, 3058-3067.	5.6	11
100	Janus quantum dot vesicles generated through membrane fusion. Materials Chemistry Frontiers, 2018, 2, 1040-1045.	5.9	10
101	Block Copolymer Selfâ€Assembly Guided Synthesis of Mesoporous Carbons with Inâ€Plane Holey Pores for Efficient Oxygen Reduction Reaction. Macromolecular Rapid Communications, 2022, 43, e2100884.	3.9	9
102	Nonplanar Ladder-Type Polycyclic Conjugated Molecules: Structures and Solid-State Properties. Crystal Growth and Design, 2015, 15, 3332-3338.	3.0	8
103	Multiwavelength Raman spectroscopy of ultranarrow nanoribbons made by solution-mediated bottom-up approach. Physical Review B, 2019, 100, .	3.2	8
104	Bisâ€Anthracene Fused Porphyrin as an Efficient Photocatalyst: Facile Synthesis and Visibleâ€Lightâ€Driven Oxidative Coupling of Amines. Chemistry - A European Journal, 2020, 26, 16497-16503.	3.3	7
105	Azobenzene-functionalized graphene nanoribbons: bottom-up synthesis, photoisomerization behaviour and self-assembled structures. Journal of Materials Chemistry C, 2020, 8, 10837-10843.	5.5	6
106	Fabrication of sulfur-doped cove-edged graphene nanoribbons on Au(111)*. Chinese Physics B, 2021, 30, 077306.	1.4	6
107	Threeâ€dimensional Carbon Nitride/Graphene Framework as a Highâ€Performance Cathode for Lithiumâ€Ion Batteries. Chemistry - an Asian Journal, 2016, 11, 1194-1198.	3.3	5
108	Onâ€Surface Synthesis of Iron Phthalocyanine Using Metalâ€Organic Coordination Templates. ChemPhysChem, 2019, 20, 2394-2397.	2.1	5

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109	Efficient Electrocatalytic Upgradation of Furan-Based Biomass: Key Roles of a Two-Dimensional Mesoporous Poly(m-phenylenediamine)-Graphene Heterostructure and a Ternary Electrolyte. Macromolecules, 0, , .	4.8	5
110	A Hybrid Photocatalyst Composed of CdS Nanoparticles and Graphene Nanoribbons for Visible-Light-Driven Hydrogen Production. ACS Applied Energy Materials, 2022, 5, 8621-8628.	5.1	5
111	Near-Infrared Light-Triggered Bacterial Eradication Using a Nanowire Nanocomposite of Graphene Nanoribbons and Chitosan-Coated Silver Nanoparticles. Frontiers in Chemistry, 2021, 9, 767847.	3.6	4
112	Waterâ€Insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie, 2020, 132, 7307-7311.	2.0	3
113	A Ï€-extended luminogen with colorimetric and off/on fluorescent multi-channel detection for Cu²⁺ with extremely high selectivity and sensitivity via nonarylamine-based organic mixed valence. RSC Advances, 2016, 6, 76691-76695.	3.6	2
114	Oneâ€Dimensional Helical Nanostructures from the Hierarchical Selfâ€Assembly of an Achiral â€œRodâ^'Coilâ€• Alternating Copolymer. Macromolecular Rapid Communications, 0, , 2200437.	3.9	2
115	Degradation of Structurally Defined Graphene Nanoribbons by Myeloperoxidase and the Photoâ€Fenton Reaction. Angewandte Chemie, 2020, 132, 18673-18679.	2.0	1
116	Two-dimensional electronic spectroscopy of graphene nanoribbons in organic solution. EPJ Web of Conferences, 2019, 205, 05005.	0.3	0