Donghui Zhang

List of Publications by Year
in descending order

94 papers	4,461 citations	87888 38 h-index	110387 64 g-index
95 all docs	95 docs citations	95 times ranked	4423 citing authors

#	Article	IF	Citations
1	Dynamic Covalent Polymer Networks Based on Degenerative Imine Bond Exchange: Tuning the Malleability and Self-Healing Properties by Solvent. Macromolecules, 2016, 49, 6277-6284.	4.8	310
2	Cyclic Poly(Î±-peptoid)s and Their Block Copolymers from N-Heterocyclic Carbene-Mediated Ring-Opening Polymerizations of N-Substituted <i>N</i>-Carboxylanhydrides. Journal of the American Chemical Society, 2009, 131, 18072-18074.	13.7	246
3	Poly(l-lactide) (PLLA)/Multiwalled Carbon Nanotube (MWCNT) Composite:Â Characterization and Biocompatibility Evaluation. Journal of Physical Chemistry B, 2006, 110, 12910-12915.	2.6	220
4	Formation of Tellurium Nanocrystals during Anaerobic Growth of Bacteria That Use Te Oxyanions as Respiratory Electron Acceptors. Applied and Environmental Microbiology, 2007, 73, 2135-2143.	3.1	200
5	Polypeptoid Materials: Current Status and Future Perspectives. Macromolecules, 2012, 45, 5833-5841.	4.8	160
6	<i>N</i>-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of N-Substituted <i>N</i>-Carboxyanhydrides toward Poly(Î±-peptoid)s: Kinetic, Mechanism, and Architectural Control. Journal of the American Chemical Society, 2012, 134, 9163-9171.	13.7	149
7	Impact of Antifouling PEG Layer on the Performance of Functional Peptides in Regulating Cell Behaviors. Journal of the American Chemical Society, 2019, 141, 16772-16780.	13.7	133
8	General Route toward Side-Chain-Functionalized Î±-Helical Polypeptides. Biomacromolecules, 2010, 11, 1585-1592.	5.4	129
9	Synthesis and Characterization of Amphiphilic Cyclic Diblock Copolypeptoids from <i>N</i>-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of <i>N</i>-Substituted <i>N</i>-Carboxyanhydride. Macromolecules, 2011, 44, 9574-9585.	4.8	118
10	Thermoresponsive Poly(Î±-peptoid)s: Tuning the Cloud Point Temperatures by Composition and Architecture. ACS Macro Letters, 2012, 1, 580-584.	4.8	117
11	Dealing with the Foreignâ€Body Response to Implanted Biomaterials: Strategies and Applications of New Materials. Advanced Functional Materials, 2021, 31, 2007226.	14.9	114
12	Synthesis and Characterization of Cyclic Brush-Like Polymers by <i>N</i>-Heterocyclic Carbene-Mediated Zwitterionic Polymerization of <i>N</i>-Propargyl <i>N</i>-Carboxyanhydride and the Grafting-to Approach. Macromolecules, 2011, 44, 9063-9074.	4.8	99
13	Catalytic Polymerization of a Cyclic Ester Derived from a â€œCoolâ€•Natural Precursor. Biomacromolecules, 2005, 6, 2091-2095.	5.4	96
14	Coreâˆ'Shell Molecular Bottlebrushes with Helical Polypeptide Backbone: Synthesis, Characterization, and Solution Conformations. Macromolecules, 2011, 44, 1491-1499.	4.8	91
15	Crystallization and Melting Behaviors of Cyclic and Linear Polypeptoids with Alkyl Side Chains. Macromolecules, 2013, 46, 8213-8223.	4.8	77
16	Solution Self-Assemblies of Sequence-Defined Ionic Peptoid Block Copolymers. Journal of the American Chemical Society, 2018, 140, 4100-4109.	13.7	72
17	Bacterial proliferation on clay nanotube Pickering emulsions for oil spill bioremediation. Colloids and Surfaces B: Biointerfaces, 2018, 164, 27-33.	5.0	71
18	Thermoreversible and Injectable ABC Polypeptoid Hydrogels: Controlling the Hydrogel Properties through Molecular Design. Chemistry of Materials, 2016, 28, 727-737.	6.7	70

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19	Multi-functionalization of helical block copoly(Î±-peptide)s by orthogonal chemistry. Polymer Chemistry, 2011, 2, 1542.	3.9	68
20	Polypeptoid polymers: Synthesis, characterization, and properties. Biopolymers, 2018, 109, e23070.	2.4	67
21	Top-Down Multidimensional Mass Spectrometry Methods for Synthetic Polymer Analysis. Macromolecules, 2011, 44, 4555-4564.	4.8	65
22	Synthesis and characterization of cyclic and linear helical poly(Î±â€peptoid)s by <i>N</i>â€heterocyclic carbeneâ€mediated ringâ€opening polymerizations of <i>N</i>â€substituted <i>N</i>â€carboxyanhydrides. Biopolymers, 2011, 96, 596-603.	2.4	59
23	Silkâ€Inspired Î²â€Peptide Materials Resist Fouling and the Foreignâ€Body Response. Angewandte Chemie - International Edition, 2020, 59, 9586-9593.	13.8	56
24	A New Synthetic Route to Poly[3-hydroxypropionic acid] (P[3-HP]):Â Ring-Opening Polymerization of 3-HP Macrocyclic Esters. Macromolecules, 2004, 37, 8198-8200.	4.8	55
25	Investigation of Amphiphilic Polypeptoid-Functionalized Halloysite Nanotubes as Emulsion Stabilizer for Oil Spill Remediation. ACS Applied Materials & Interfaces, 2019, 11, 27944-27953.	8.0	54
26	Dual mechanism Î²-amino acid polymers promoting cell adhesion. Nature Communications, 2021, 12, 562.	12.8	54
27	Dynamic electrical properties of polymer-carbon nanotube composites: Enhancement through covalent bonding. Journal of Materials Research, 2006, 21, 1071-1077.	2.6	53
28	Crystallization-Driven Thermoreversible Gelation of Coil-Crystalline Cyclic and Linear Diblock Copolypeptoids. ACS Macro Letters, 2013, 2, 436-440.	4.8	53
29	Synthesis and Characterization of Cleavable Core-Cross-Linked Micelles Based on Amphiphilic Block Copolypeptoids as Smart Drug Carriers. Biomacromolecules, 2016, 17, 852-861.	5.4	53
30	Unusual Reactivity of â€œProton Spongeâ€•as a Hydride Donor to Transition Metals:Â Synthesis and Structural Characterization of Fluoroalkyl(hydrido) Complexes of Iridium(III) and Rhodium(III). Organometallics, 2001, 20, 3190-3197.	2.3	50
31	Waterâ€Insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie - International Edition, 2020, 59, 7240-7244.	13.8	50
32	Amidine-Mediated Zwitterionic Ring-Opening Polymerization of <i>N</i>-Alkyl <i>N</i>-Carboxyanhydride: Mechanism, Kinetics, and Architecture Elucidation. Macromolecules, 2016, 49, 1163-1171.	4.8	49
33	Synthesis and Characterization of Well-Defined PEGylated Polypeptoids as Protein-Resistant Polymers. Biomacromolecules, 2017, 18, 951-964.	5.4	46
34	Modulating the Molecular Geometry and Solution Self-Assembly of Amphiphilic Polypeptoid Block Copolymers by Side Chain Branching Pattern. Journal of the American Chemical Society, 2021, 143, 5890-5902.	13.7	46
35	1,1,3,3-Tetramethylguanidine-Promoted Ring-Opening Polymerization of N-Butyl N-Carboxyanhydride Using Alcohol Initiators. Macromolecules, 2016, 49, 2002-2012.	4.8	44
36	Crystallization-Driven Self-Assembly of Coilâ€“Comb-Shaped Polypeptoid Block Copolymers: Solution Morphology and Self-Assembly Pathways. Macromolecules, 2019, 52, 8867-8877.	4.8	42

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37	Carbonâ^'Fluorine Bond Activation Coupled with Carbonâ^'Hydrogen Bond Formation Î± to Iridium:â€‰ Kinetics, Mechanism, and Diastereoselectivity. Journal of the American Chemical Society, 2005, 127, 15585-15594.	13.7	41
38	Electrical transport measurements of highly conductive carbon nanotube/poly(bisphenol A) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td	2.5	41
39	Interfacial Ring-Opening Polymerization of Amino-Acid-Derived <i>N</i>-Thiocarboxyanhydrides Toward Well-Defined Polypeptides. ACS Macro Letters, 2017, 6, 836-840.	4.8	41
40	Carbonâ^'Fluorine Bond Hydrogenolysis in Perfluoroethylâ^'Iridium Complexes To Give HFC-134a Involves Heterolytic Activation of H2. Organometallics, 2002, 21, 3085-3087.	2.3	38
41	Investigation of Secondary Amine-Derived Aminal Bond Exchange toward the Development of Covalent Adaptable Networks. Macromolecules, 2019, 52, 495-503.	4.8	38
42	Thiolation of carbon nanotubes and sidewall functionalization. Journal of Materials Research, 2006, 21, 1012-1018.	2.6	37
43	First Investigation of the Kinetic Hydrate Inhibitor Performance of Poly(<i>N</i>-alkylglycine)s. Energy & Fuels, 2014, 28, 6889-6896.	5.1	37
44	Synthesis and characterization of thermo-responsive polypeptoid bottlebrushes. Polymer Chemistry, 2014, 5, 1418-1426.	3.9	37
45	Functionalization of multi-walled carbon nanotubes: Direct proof of sidewall thiolation. Physica Status Solidi (B): Basic Research, 2006, 243, 3221-3225.	1.5	35
46	Targeted and Stimulus-Responsive Delivery of Surfactant to the Oilâ€"Water Interface for Applications in Oil Spill Remediation. ACS Applied Materials & Interfaces, 2020, 12, 1840-1849.	8.0	33
47	Bio-inspired poly-DL-serine materials resist the foreign-body response. Nature Communications, 2021, 12, 5327.	12.8	33
48	Water, water, everywhere.â€ Synthesis and structures of perfluoroalkyl rhodium and iridium(III) compounds containing water ligands. Dalton Transactions RSC, 2001, , 2270-2278.	2.3	30
49	Engineered Clays as Sustainable Oil Dispersants in the Presence of Model Hydrocarbon Degrading Bacteria: The Role of Bacterial Sequestration and Biofilm Formation. ACS Sustainable Chemistry and Engineering, 2018, 6, 14143-14153.	6.7	29
50	Selective Protonation at a Câ^'F Bond in the Presence of an Iridiumâ^'Methyl Bond Gives Diastereoselective Carbonâ^'Fluorine Bond Activation and Carbonâ^'Carbon Bond Formation. A New Path to Carbon Stereocenters Bearing Fluorine Atoms. Organometallics, 2002, 21, 4902-4904.	2.3	28
51	Synthesis and Structural Characterization of (Perfluoroalkyl)fluoroiridium(III) and (Perfluoroalkyl)methyliridium(III) Compounds. Organometallics, 2006, 25, 3474-3480.	2.3	28
52	Conformational Analysis and Assignments of Relative Stereocenter Configurations in Fluoroalkylâ^'Iridium Complexes Using19F{1H} HOESY Experiments. Comparison with Solid-State X-ray Structural Results. Journal of the American Chemical Society, 2004, 126, 6169-6178.	13.7	27
53	Clay Nanotube Liquid Marbles Enhanced with Inner Biofilm Formation for the Encapsulation and Storage of Bacteria at Room Temperature. ACS Applied Nano Materials, 2020, 3, 1263-1271.	5.0	27
54	A sandcastle worm-inspired strategy to functionalize wet hydrogels. Nature Communications, 2021, 12, 6331.	12.8	27

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55	Organic Acid Promoted Controlled Ring-Opening Polymerization of Î±-Amino Acid-Derived <i>N</i>-thiocarboxyanhydrides (NTAs) toward Well-defined Polypeptides. ACS Macro Letters, 2018, 7, 1272-1277.	4.8	26
56	The impact of antifouling layers in fabricating bioactive surfaces. Acta Biomaterialia, 2021, 126, 45-62.	8.3	25
57	Isotactic Polymers with Alternating Lactic Acid and Oxetane Subunits from the Endoentropic Polymerization of a 14-Membered Ring. Macromolecules, 2004, 37, 5274-5281.	4.8	24
58	Poly(Î³â€benzylâ€<scp>L</scp>â€glutamate)â€functionalized singleâ€walled carbon nanotubes from surfaceâ€initiated ringâ€opening polymerizations of <i>N</i>â€carboxylanhydride. Journal of Polymer Science Part A, 2010, 48, 2340-2350.	2.3	24
59	Cationic Polypeptoids with Optimized Molecular Characteristics toward Efficient Nonviral Gene Delivery. ACS Applied Materials & Interfaces, 2017, 9, 23476-23486.	8.0	24
60	A resonance Raman study of carboxyl induced defects in single-walled carbon nanotubes. Physica B: Condensed Matter, 2010, 405, 4570-4573.	2.7	19
61	Stoppers and Skins on Clay Nanotubes Help Stabilize Oil-in-Water Emulsions and Modulate the Release of Encapsulated Surfactants. ACS Applied Nano Materials, 2019, 2, 3490-3500.	5.0	19
62	Microbial Metabolite Inspired <i>Î²</i>â€Peptide Polymers Displaying Potent and Selective Antifungal Activity. Advanced Science, 2022, 9, e2104871.	11.2	19
63	Non-ionic water-soluble â€œclickableâ€Î±-helical polypeptides: synthesis, characterization and side chain modification. Polymer Chemistry, 2015, 6, 1226-1229.	3.9	17
64	Amphiphilic Polypeptoids Serve as the Connective Glue to Transform Liposomes into Multilamellar Structures with Closely Spaced Bilayers. Langmuir, 2017, 33, 2780-2789.	3.5	16
65	Directed Growth of Polymer Nanorods Using Surface-Initiated Ring-Opening Polymerization of <i>N</i>-Allyl <i>N</i>-Carboxyanhydride. ACS Applied Materials & Interfaces, 2016, 8, 4014-4022.	8.0	15
66	Thermoreversible gelation of helical polypeptide/singleâ€walled carbon nanotubes and their solidâ€state structures. Journal of Polymer Science Part A, 2011, 49, 3228-3238.	2.3	13
67	Amphiphilic Polypeptoids Rupture Vesicle Bilayers To Form Peptoidâ€“Lipid Fragments Effective in Enhancing Hydrophobic Drug Delivery. Langmuir, 2019, 35, 15335-15343.	3.5	12
68	Formation of highly conductive composite coatings and their applications to broadband antennas and mechanical transducers. Journal of Materials Research, 2010, 25, 1741-1747.	2.6	11
69	Chemical approaches for nanoscale patterning based on particle lithography with proteins and organic thin films. Nanotechnology Reviews, 2015, 4, 129-143.	5.8	11
70	Unusual molecular mechanism behind the thermal response of polypeptoids in aqueous solutions. Physical Chemistry Chemical Physics, 2017, 19, 10878-10888.	2.8	11
71	Electrical transport measurements of highly conductive nitrogen-doped multiwalled carbon nanotubes/poly(bisphenol A carbonate) composites. Journal of Materials Research, 2011, 26, 2854-2859.	2.6	10
72	Special issue â€˜Cyclic polymers: New developmentsâ€™. Reactive and Functional Polymers, 2014, 80, 1-2.	4.1	10

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73	Aggregation of cyclic polypeptoids bearing zwitterionic end-groups with attractive dipoleâ€“dipole and solvophobic interactions: a study by small-angle neutron scattering and molecular dynamics simulation. Physical Chemistry Chemical Physics, 2017, 19, 14388-14400.	2.8	10
74	Cyclic Topology Enhancing Structural Ordering and Stability of Comb-Shaped Polypeptoid Thin Films against Melt-Induced Dewetting. Macromolecules, 2020, 53, 7601-7612.	4.8	10
75	Solution Self-Assembly of Coil-Crystalline Diblock Copolypeptoids Bearing Alkyl Side Chains. Polymers, 2021, 13, 3131.	4.5	9
76	Unraveling the Role of Charge Patterning in the Micellar Structure of Sequence-Defined Amphiphilic Peptoid Oligomers by Molecular Dynamics Simulations. Macromolecules, 2022, 55, 5197-5212.	4.8	8
77	Silkâ€Inspired Î²â€Peptide Materials Resist Fouling and the Foreignâ€Body Response. Angewandte Chemie, 2020, 132, 9673-9680.	2.0	7
78	Controlled ring-opening polymerization of <i>N</i>-(3-<i>tert</i>-butoxy-3-oxopropyl) glycine derived <i>N</i>-carboxyanhydrides towards well-defined peptoid-based polyacids. Polymer Chemistry, 2021, 12, 1540-1548.	3.9	7
79	Solid state self-assembly of the single-walled carbon nanotubes and poly(Î³-benzyl-l -glutamate)s with different conformations. Journal of Polymer Science Part A, 2013, 51, 4489-4497.	2.3	6
80	Thermoresponsive Behavior of Polypeptoid Nanostructures Investigated with Heated Atomic Force Microscopy: Implications toward the Development of Smart Coatings for Surface-Based Sensors. ACS Applied Nano Materials, 2019, 2, 7617-7625.	5.0	6
81	1,1,3,3-Tetramethylguanidine-Mediated Zwitterionic Ring-Opening Polymerization of Sarcosine-Derived <i>N</i>-Thiocarboxyanhydride toward Well-Defined Polysarcosine. Macromolecules, 2022, 55, 2509-2516.	4.8	6
82	Antifouling zwitterionic poly-Î²-peptides. Applied Materials Today, 2022, 27, 101511.	4.3	6
83	Doping Properties of Polydithienylmethine:Â A Study on the Correlation between Polymer Chain Length, Spectroscopy, and Transport. Journal of Physical Chemistry B, 2006, 110, 3924-3929.	2.6	5
84	Synthesis and Characterization of Helix-Coil Block Copoly(Î±-peptoid)s. ACS Symposium Series, 2011, , 71-79.	0.5	5
85	Hydrophobe Containing Polypeptoids Complex with Lipids and Induce Fusogenesis of Lipid Vesicles. Journal of Physical Chemistry B, 2021, 125, 3145-3152.	2.6	5
86	Colorful Polyelectrolytes: An Atom Transfer Radical Polymerization Route to Fluorescent Polystyrene Sulfonate. Journal of Fluorescence, 2016, 26, 609-615.	2.5	4
87	Sample stage designed for force modulation microscopy using a tip-mounted AFM scanner. Analyst, The, 2016, 141, 1753-1760.	3.5	4
88	Spectroscopic studies of CSA-doped poly[C-hydroxyl-(4-N-dimethylamino)phenyl]dithienylmethine and doping effects on ionic conductivity. Synthetic Metals, 2006, 156, 482-487.	3.9	3
89	Synthesis and solid-state self-assembly of poly(ethylene glycol)-b-poly(Î³-benzyl-l-glutamate)s and single-walled carbon nanotubes. Journal of Polymer Science Part A, 2014, 52, 1905-1915.	2.3	3
90	Waterâ€Insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie, 2020, 132, 7307-7311.	2.0	3

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91	Foreignâ€Body Responses: Dealing with the Foreignâ€Body Response to Implanted Biomaterials: Strategies and Applications of New Materials (Adv. Funct. Mater. 6/2021). Advanced Functional Materials, 2021, 31, 2170040.	14.9	3
92	Pronounced Dielectric and Hydration/Dehydration Behaviors of Monopolar Poly(<i>N</i>-alkylglycine)s in Aqueous Solution. Journal of Physical Chemistry B, 2016, 120, 9978-9986.	2.6	2
93	Tethering Carbon Nanotubes. AIP Conference Proceedings, 2005, , .	0.4	0
94	New Polymer Nanotube Design from Graft Polymerization. AIP Conference Proceedings, 2005, , .	0.4	0