John B Matson

List of Publications by Year
in descending order

94	5,146	94381 37	91828 69
papers	citations	h-index	g-index

97	97	97	5683
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Self-assembling peptide scaffolds for regenerative medicine. Chemical Communications, 2012, 48, 26-33.	2.2	446
2	A review of hydrogen sulfide (H2S) donors: Chemistry and potential therapeutic applications. Biochemical Pharmacology, 2018, 149, 110-123.	2.0	380
3	Peptide self-assembly for crafting functional biological materials. Current Opinion in Solid State and Materials Science, 2011, 15, 225-235.	5.6	251
4	Dendrimers Clicked Together Divergently. Macromolecules, 2005, 38, 5436-5443.	2.2	240
5	Controlled release of dexamethasone from peptide nanofiber gels to modulate inflammatory response. Biomaterials, 2012, 33, 6823-6832.	5.7	214
6	Bottlebrush Polymer Synthesis by Ring-Opening Metathesis Polymerization: The Significance of the Anchor Group. Journal of the American Chemical Society, 2016, 138, 6998-7004.	6.6	156
7	Internal dynamics of a supramolecular nanofibre. Nature Materials, 2014, 13, 812-816.	13.3	154
8	Neuroactive Chondroitin Sulfate Glycomimetics. Journal of the American Chemical Society, 2008, 130, 2959-2961.	6.6	136
9	Cell death versus cell survival instructed by supramolecular cohesion of nanostructures. Nature Communications, 2014, 5, 3321.	5.8	135
10	Drug release from hydrazone-containing peptide amphiphiles. Chemical Communications, 2011, 47, 7962.	2.2	128
11	Synthesis of Fluorine-18 Functionalized Nanoparticles for use as in vivo Molecular Imaging Agents. Journal of the American Chemical Society, 2008, 130, 6731-6733.	6.6	120
12	S-Aroylthiooximes: A Facile Route to Hydrogen Sulfide Releasing Compounds with Structure-Dependent Release Kinetics. Organic Letters, 2014, 16, 1558-1561.	2.4	113
13	Therapeutic Delivery of H₂S via COS: Small Molecule and Polymeric Donors with Benign Byproducts. Journal of the American Chemical Society, 2016, 138, 13477-13480.	6.6	113
14	Nanostructure-templated control of drug release from peptide amphiphile nanofiber gels. Soft Matter, 2012, 8, 3586.	1.2	95
15	A Persulfide Donor Responsive to Reactive Oxygen Species: Insights into Reactivity and Therapeutic Potential. Angewandte Chemie - International Edition, 2018, 57, 6324-6328.	7.2	90
16	Enzyme-induced in vivo assembly of gold nanoparticles for imaging-guided synergistic chemo-photothermal therapy of tumor. Biomaterials, 2019, 223, 119460.	5.7	90
17	Photodynamic Control of Bioactivity in a Nanofiber Matrix. ACS Nano, 2012, 6, 10776-10785.	7.3	88
18	End-functionalized glycopolymers as mimetics of chondroitin sulfate proteoglycans. Chemical Science, 2010, 1, 322.	3.7	83

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19	A peptide-based material for therapeutic carbon monoxide delivery. Soft Matter, 2012, 8, 6689.	1.2	83
20	ROMPâ^'ATRP Block Copolymers Prepared from Monotelechelic Poly(oxa)norbornenes Using a Difunctional Terminating Agent. Macromolecules, 2008, 41, 5626-5631.	2.2	75
21	Pulsed-Addition Ring-Opening Metathesis Polymerization: Catalyst-Economical Syntheses of Homopolymers and Block Copolymers. Journal of the American Chemical Society, 2009, 131, 3355-3362.	6.6	72
22	Tapered Bottlebrush Polymers: Cone-Shaped Nanostructures by Sequential Addition of Macromonomers. ACS Macro Letters, 2017, 6, 1175-1179.	2.3	71
23	Gasotransmitter delivery via self-assembling peptides: Treating diseases with natural signaling gases. Advanced Drug Delivery Reviews, 2017, 110-111, 137-156.	6.6	69
24	H₂S-Releasing Polymer Micelles for Studying Selective Cell Toxicity. Molecular Pharmaceutics, 2017, 14, 1300-1306.	2.3	66
25	Functionalization of Methacrylate Polymers with Thiooximes: A Robust Postpolymerization Modification Reaction and a Method for the Preparation of H₂S-Releasing Polymers. Macromolecules, 2014, 47, 5089-5095.	2.2	64
26	Self-Assembled Nanostructures Regulate H₂S Release from Constitutionally Isomeric Peptides. Journal of the American Chemical Society, 2018, 140, 14945-14951.	6.6	62
27	Peptide-based hydrogen sulphide-releasing gels. Chemical Communications, 2015, 51, 13131-13134.	2.2	58
28	Amphiphilic Bottlebrush Block Copolymers: Analysis of Aqueous Self-Assembly by Small-Angle Neutron Scattering and Surface Tension Measurements. Macromolecules, 2019, 52, 465-476.	2.2	56
29	Monotelechelic Poly(oxa)norbornenes by Ring-Opening Metathesis Polymerization Using Direct End-Capping and Cross-Metathesis. Macromolecules, 2010, 43, 213-221.	2.2	55
30	Synthesis of bottlebrush polymers via transfer-to and grafting-through approaches using a RAFT chain transfer agent with a ROMP-active Z-group. Polymer Chemistry, 2015, 6, 5643-5652.	1.9	51
31	Reversibly Cross-linkable Bottlebrush Polymers as Pressure-Sensitive Adhesives. ACS Applied Materials & Interfaces, 2018, 10, 26662-26668.	4.0	50
32	Hydrogen sulfide-releasing peptide hydrogel limits the development of intimal hyperplasia in human vein segments. Acta Biomaterialia, 2019, 97, 374-384.	4.1	50
33	Preparation of Bottlebrush Polymers via a One-Pot Ring-Opening Polymerization (ROP) and Ring-Opening Metathesis Polymerization (ROMP) Grafting-Through Strategy. Macromolecular Rapid Communications, 2016, 37, 616-621.	2.0	44
34	Olefin Cross-Metathesis in Polymer and Polysaccharide Chemistry: A Review. Biomacromolecules, 2017, 18, 1661-1676.	2.6	44
35	Graft polymer synthesis by RAFT transferâ€to. Journal of Polymer Science Part A, 2017, 55, 2865-2876.	2.5	44
36	Epitope topography controls bioactivity in supramolecular nanofibers. Biomaterials Science, 2015, 3, 520-532.	2.6	43

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37	Alleviating Cellular Oxidative Stress through Treatment with Superoxideâ€Triggered Persulfide Prodrugs. Angewandte Chemie - International Edition, 2020, 59, 16698-16704.	7.2	40
38	Olefin cross-metathesis, a mild, modular approach to functionalized cellulose esters. Polymer Chemistry, 2014, 5, 7021-7033.	1.9	39
39	Olefin Cross-Metathesis as a Source of Polysaccharide Derivatives: Cellulose ï‰-Carboxyalkanoates. Biomacromolecules, 2014, 15, 177-187.	2.6	38
40	Photo- and Biodegradable Thermoplastic Elastomers: Combining Ketone-Containing Polybutadiene with Polylactide Using Ring-Opening Polymerization and Ring-Opening Metathesis Polymerization. Macromolecules, 2017, 50, 4180-4187.	2.2	34
41	Crescent-Shaped Supramolecular Tetrapeptide Nanostructures. Journal of the American Chemical Society, 2020, 142, 20058-20065.	6.6	33
42	Cationic polythiophenes as responsive DNA-binding polymers. Polymer Chemistry, 2014, 5, 314-317.	1.9	32
43	The Benefits of Macromolecular/Supramolecular Approaches in Hydrogen Sulfide Delivery: A Review of Polymeric and Self-Assembled Hydrogen Sulfide Donors. Antioxidants and Redox Signaling, 2020, 32, 79-95.	2.5	32
44	Polysaccharide-containing block copolymers: synthesis and applications. Materials Chemistry Frontiers, 2020, 4, 99-112.	3.2	30
45	Complex Polymer Architectures Using Ring-Opening Metathesis Polymerization: Synthesis, Applications, and Practical Considerations. Macromolecules, 2022, 55, 4200-4227.	2.2	30
46	The evolving landscape for cellular nitric oxide and hydrogen sulfide delivery systems: A new era of customized medications. Biochemical Pharmacology, 2020, 176, 113931.	2.0	29
47	Polymeric Persulfide Prodrugs: Mitigating Oxidative Stress through Controlled Delivery of Reactive Sulfur Species. ACS Macro Letters, 2020, 9, 606-612.	2.3	29
48	Light-Controlled Hierarchical Self-Assembly of Polyelectrolytes and Supramolecular Polymers. ACS Macro Letters, 2015, 4, 43-47.	2.3	28
49	EphA4/Tie2 crosstalk regulates leptomeningeal collateral remodeling following ischemic stroke. Journal of Clinical Investigation, 2020, 130, 1024-1035.	3.9	28
50	A Persulfide Donor Responsive to Reactive Oxygen Species: Insights into Reactivity and Therapeutic Potential. Angewandte Chemie, 2018, 130, 6432-6436.	1.6	26
51	Molecular-Level Control over Plasmonic Properties in Silver Nanoparticle/Self-Assembling Peptide Hybrids. Journal of the American Chemical Society, 2020, 142, 9158-9162.	6.6	26
52	A Review of Chemical Tools for Studying Small Molecule Persulfides: Detection and Delivery. ACS Chemical Biology, 2021, 16, 1128-1141.	1.6	26
53	Dendritic Elastin-like Peptides: The Effect of Branching on Thermoresponsiveness. Biomacromolecules, 2016, 17, 262-270.	2.6	24
54	Functional N-Substituted N-Thiocarboxyanhydrides as Modular Tools for Constructing H₂S Donor Conjugates. ACS Chemical Biology, 2019, 14, 1129-1134.	1.6	24

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55	Assembly of a visible light photoreactor: an inexpensive tool for bottlebrush polymer synthesis via photoiniferter polymerization. Polymer Chemistry, 2017, 8, 7452-7456.	1.9	23
56	Peripheral loss of EphA4 ameliorates TBI-induced neuroinflammation and tissue damage. Journal of Neuroinflammation, 2019, 16, 210.	3.1	23
57	Hydrogels composed of hyaluronic acid and dendritic ELPs: hierarchical structure and physical properties. Soft Matter, 2019, 15, 917-925.	1.2	23
58	H₂S-releasing amphiphilic dipeptide hydrogels are potentS. aureusbiofilm disruptors. Biomaterials Science, 2020, 8, 2564-2576.	2.6	23
59	Tuning H₂S Release by Controlling Mobility in a Micelle Core. Macromolecules, 2019, 52, 1104-1111.	2.2	22
60	Supramolecular Tuning of H₂S Release from Aromatic Peptide Amphiphile Gels: Effect of Core Unit Substituents. Biomacromolecules, 2019, 20, 1077-1086.	2.6	22
61	Targeted Delivery of Persulfides to the Gut: Effects on the Microbiome. Angewandte Chemie - International Edition, 2021, 60, 6061-6067.	7.2	22
62	Precision Polyketones by Ring-Opening Metathesis Polymerization: Effects of Regular and Irregular Ketone Spacing. Macromolecules, 2016, 49, 3655-3662.	2.2	21
63	Supramolecular Nanostructures with Tunable Donor Loading for Controlled H₂S Release. ACS Applied Bio Materials, 2019, 2, 5093-5098.	2.3	20
64	Norbornene-containing dithiocarbamates for use in reversible additionâ€“fragmentation chain transfer (RAFT) polymerization and ring-opening metathesis polymerization (ROMP). Polymer, 2015, 79, 205-211.	1.8	19
65	Elastase-triggered H₂S delivery from polymer hydrogels. Chemical Communications, 2020, 56, 1085-1088.	2.2	19
66	Linker-Regulated H₂S Release from Aromatic Peptide Amphiphile Hydrogels. Biomacromolecules, 2020, 21, 1171-1178.	2.6	19
67	Self-amplified depolymerization of oligo(thiourethanes) for the release of COS/H₂S. Polymer Chemistry, 2019, 10, 2991-2995.	1.9	18
68	pH-Responsive Self-Assembling Peptide-Based Biomaterials: Designs and Applications. ACS Applied Bio Materials, 2022, 5, 4635-4651.	2.3	17
69	Multi-scale characterization of thermoresponsive dendritic elastin-like peptides. Colloids and Surfaces B: Biointerfaces, 2017, 153, 141-151.	2.5	16
70	Peptide-based supramolecular photodynamic therapy systems: From rational molecular design to effective cancer treatment. Chemical Engineering Journal, 2022, 436, 135240.	6.6	15
71	Solvent Effects in Grafting-through Ring-Opening Metathesis Polymerization. Macromolecules, 2022, 55, 3522-3532.	2.2	15
72	Toughening Cellulose: Compatibilizing Polybutadiene and Cellulose Triacetate Blends. ACS Macro Letters, 2019, 8, 447-453.	2.3	14

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73	Factors affecting bottlebrush polymer synthesis by the transfer-to method using reversible additionâ€“fragmentation chain transfer (RAFT) polymerization. Polymer Chemistry, 2017, 8, 1636-1643.	1.9	13
74	A combined experimental and computational approach reveals how aromatic peptide amphiphiles self-assemble to form ion-conducting nanohelices. Materials Chemistry Frontiers, 2020, 4, 3022-3031.	3.2	13
75	Effect of Crosslinker Topology on Enzymatic Degradation of Hydrogels. Biomacromolecules, 2020, 21, 3279-3286.	2.6	12
76	Self-Immolative Prodrugs: Effective Tools for the Controlled Release of Sulfur Signaling Species. Synlett, 2019, 30, 525-531.	1.0	11
77	Tuning small molecule release from polymer micelles: Varying H2S release through crosslinking in the micelle core. European Polymer Journal, 2020, 141, 110077.	2.6	11
78	Amino acid-based H2S donors: N-thiocarboxyanhydrides that release H2S with innocuous byproducts. Chemical Communications, 2021, 57, 5522-5525.	2.2	11
79	Reconsidering terms for mechanisms of polymer growth: the â€œstep-growthâ€•and â€œchain-growthâ€• dilemma. Polymer Chemistry, 2022, 13, 2262-2270.	1.9	11
80	Hydrolytic Decomposition of S-Aroylthiooximes: Effect of pH and N-Arylidene Substitution on Reaction Rate. Journal of Organic Chemistry, 2018, 83, 13363-13369.	1.7	10
81	Effects of graft polymer compatibilizers in blends of cellulose triacetate and poly(lactic acid). Polymer International, 2019, 68, 1263-1270.	1.6	9
82	Novel Electrospun Pullulan Fibers Incorporating Hydroxypropyl-Î²-Cyclodextrin: Morphology and Relation with Rheological Properties. Polymers, 2020, 12, 2558.	2.0	9
83	Alleviating Cellular Oxidative Stress through Treatment with Superoxideâ€Triggered Persulfide Prodrugs. Angewandte Chemie, 2020, 132, 16841-16847.	1.6	8
84	Green-light-responsive metalâ€“organic frameworks for colorectal cancer treatment. Chemical Communications, 2022, 58, 5225-5228.	2.2	8
85	Poly(Î²-Cyclodextrin) Prepared by Ring-Opening Metathesis Polymerization Enables Creation of Supramolecular Polymeric Networks. ACS Macro Letters, 2021, 10, 1460-1466.	2.3	6
86	Quo Vadis, Macromolecular Science? Reflections by the IUPAC Polymer Division on the Occasion of the Staudinger Centenary. Israel Journal of Chemistry, 2020, 60, 9-19.	1.0	5
87	Targeted Delivery of Persulfides to the Gut: Effects on the Microbiome. Angewandte Chemie, 2021, 133, 6126-6132.	1.6	5
88	Dendrimers Clicked Together Divergently Volume 38, Number 13, June 28, 2005, pp 5436â€“5443.. Macromolecules, 2006, 39, 900-900.	2.2	3
89	Structure to Function in Supramolecular Polymers and Materials. Macromolecular Rapid Communications, 2018, 39, 1800574.	2.0	3
90	Strong Variation of Micelleâ€“Unimer Coexistence as a Function of Core Chain Mobility. Macromolecules, 2021, 54, 6975-6981.	2.2	2

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91	Electrospun Scaffolds Functionalized with a Hydrogen Sulfide Donor Stimulate Angiogenesis. ACS Applied Materials & Interfaces, 0, , .	4.0	2
92	Polymers for biology, medicine and sustainability. Polymer International, 2019, 68, 1219-1219.	1.6	1
93	Synthesis of Fluorine-18 Functionalized Nanoparticles for Use as in Vivo Molecular Imaging Agents. NATO Science for Peace and Security Series A: Chemistry and Biology, 2009, , 237-247.	0.5	1
94	H2S Delivery from Aromatic Peptide Amphiphile Hydrogels. Methods in Molecular Biology, 2018, 1758, 193-208.	0.4	0