Samuel I Stupp

List of Publications by Year
in descending order

282 papers	35,871 citations	2669 95 h-index	3394 183 g-index
293 all docs	293 docs citations	293 times ranked	26296 citing authors

#	Article	IF	Citations
1	Self-Assembly and Mineralization of Peptide-Amphiphile Nanofibers. Science, 2001, 294, 1684-1688.	6.0	3,460
2	Selective Differentiation of Neural Progenitor Cells by High-Epitope Density Nanofibers. Science, 2004, 303, 1352-1355.	6.0	2,062
3	Selfâ€assembly of peptide amphiphiles: From molecules to nanostructures to biomaterials. Biopolymers, 2010, 94, 1-18.	1.2	1,317
4	Peptide-amphiphile nanofibers: A versatile scaffold for the preparation of self-assembling materials. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5133-5138.	3.3	1,170
5	Self-Assembling Nanofibers Inhibit Glial Scar Formation and Promote Axon Elongation after Spinal Cord Injury. Journal of Neuroscience, 2008, 28, 3814-3823.	1.7	644
6	A self-assembly pathway to aligned monodomain gels. Nature Materials, 2010, 9, 594-601.	13.3	576
7	Self-Assembly of Large and Small Molecules into Hierarchically Ordered Sacs and Membranes. Science, 2008, 319, 1812-1816.	6.0	568
8	Semiconducting superlattices templated by molecular assemblies. Nature, 1996, 380, 325-328.	13.7	525
9	Supramolecular design of self-assembling nanofibers for cartilage regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3293-3298.	3.3	487
10	A Naphthodithiophene-Diketopyrrolopyrrole Donor Molecule for Efficient Solution-Processed Solar Cells. Journal of the American Chemical Society, 2011, 133, 8142-8145.	6.6	474
11	Room-temperature ferroelectricity in supramolecular networks of charge-transfer complexes. Nature, 2012, 488, 485-489.	13.7	446
12	Self-assembling peptide scaffolds for regenerative medicine. Chemical Communications, 2012, 48, 26-33.	2.2	446
13	Self-Assembly Combining Two Bioactive Peptide-Amphiphile Molecules into Nanofibers by Electrostatic Attraction. Journal of the American Chemical Society, 2003, 125, 7146-7147.	6.6	439
14	From Molecules to Materials: Current Trends and Future Directions. Advanced Materials, 1998, 10, 1297-1336.	11.1	429
15	Supramolecular Chemistry and Self-Assembly in Organic Materials Design. Chemistry of Materials, 2014, 26, 507-518.	3.2	421
16	Supramolecular Assembly of Peptide Amphiphiles. Accounts of Chemical Research, 2017, 50, 2440-2448.	7.6	414
17	Self-Assembly of Giant Peptide Nanobelts. Nano Letters, 2009, 9, 945-951.	4.5	412
18	Heparin Binding Nanostructures to Promote Growth of Blood Vessels. Nano Letters, 2006, 6, 2086-2090.	4.5	404

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19	Self-assembling hydrogel scaffolds for photocatalytic hydrogen production. Nature Chemistry, 2014, 6, 964-970.	6.6	394
20	Supramolecular ferroelectrics. Nature Chemistry, 2015, 7, 281-294.	6.6	379
21	Tuning Supramolecular Rigidity of Peptide Fibers through Molecular Structure. Journal of the American Chemical Society, 2010, 132, 6041-6046.	6.6	367
22	Energy landscapes and functions of supramolecular systems. Nature Materials, 2016, 15, 469-476.	13.3	348
23	Coassembly of Amphiphiles with Opposite Peptide Polarities into Nanofibers. Journal of the American Chemical Society, 2005, 127, 1193-1200.	6.6	303
24	Supramolecular nanostructures that mimic VEGF as a strategy for ischemic tissue repair. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13438-13443.	3.3	288
25	Development of bioactive peptide amphiphiles for therapeutic cell delivery. Acta Biomaterialia, 2010, 6, 3-11.	4.1	286
26	Self-assembling peptide amphiphile nanofiber matrices for cell entrapment. Acta Biomaterialia, 2005, 1, 387-397.	4.1	285
27	Direct Observation of Morphological Tranformation from Twisted Ribbons into Helical Ribbons. Journal of the American Chemical Society, 2010, 132, 8819-8821.	6.6	285
28	25th Anniversary Article: Supramolecular Materials for Regenerative Medicine. Advanced Materials, 2014, 26, 1642-1659.	11.1	285
29	Enhanced Out-of-Plane Conductivity and Photovoltaic Performance in <i>n</i> = 1 Layered Perovskites through Organic Cation Design. Journal of the American Chemical Society, 2018, 140, 7313-7323.	6.6	260
30	Self-Assembly of Dendron Rodcoil Molecules into Nanoribbons. Journal of the American Chemical Society, 2001, 123, 4105-4106.	6.6	256
31	Semiconductor Nanohelices Templated by Supramolecular Ribbons. Angewandte Chemie - International Edition, 2002, 41, 1705-1709.	7.2	256
32	Synthesis, Self-Assembly, and Characterization of Supramolecular Polymers from Electroactive Dendron Rodcoil Molecules. Journal of the American Chemical Society, 2004, 126, 14452-14458.	6.6	256
33	Peptide self-assembly for crafting functional biological materials. Current Opinion in Solid State and Materials Science, 2011, 15, 225-235.	5.6	251
34	Amino Acid Sequence in Constitutionally Isomeric Tetrapeptide Amphiphiles Dictates Architecture of One-Dimensional Nanostructures. Journal of the American Chemical Society, 2014, 136, 12461-12468.	6.6	249
35	Reversible self-assembly of superstructured networks. Science, 2018, 362, 808-813.	6.0	249
36	Bone regeneration with low dose BMP-2 amplified by biomimetic supramolecular nanofibers within collagen scaffolds. Biomaterials, 2013, 34, 452-459.	5.7	244

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37	Self-Assembled Peptide Amphiphile Nanofibers Conjugated to MRI Contrast Agents. Nano Letters, 2005, 5, 1-4.	4.5	243
38	Bone regeneration mediated by biomimetic mineralization of a nanofiber matrix. Biomaterials, 2010, 31, 6004-6012.	5.7	241
39	Nanostructure Templating in Inorganic Solids with Organic Lyotropic Liquid Crystals. Journal of the American Chemical Society, 1999, 121, 7302-7309.	6.6	230
40	Pathway Selection in Peptide Amphiphile Assembly. Journal of the American Chemical Society, 2014, 136, 8540-8543.	6.6	221
41	Antitumor Activity of Peptide Amphiphile Nanofiber-Encapsulated Camptothecin. ACS Nano, 2011, 5, 9113-9121.	7.3	219
42	Controlled release of dexamethasone from peptide nanofiber gels to modulate inflammatory response. Biomaterials, 2012, 33, 6823-6832.	5.7	214
43	Supramolecular crafting of cell adhesion. Biomaterials, 2007, 28, 4608-4618.	5.7	213
44	Self-assembly for the synthesis of functional biomaterials. Acta Materialia, 2013, 61, 912-930.	3.8	209
45	Peptide supramolecular materials for therapeutics. Chemical Society Reviews, 2018, 47, 7539-7551.	18.7	208
46	Molecular Simulation Study of Peptide Amphiphile Self-Assembly. Journal of Physical Chemistry B, 2008, 112, 2326-2334.	1.2	201
47	Tunable Mechanics of Peptide Nanofiber Gels. Langmuir, 2010, 26, 3641-3647.	1.6	197
48	Atomistic Molecular Dynamics Simulations of Peptide Amphiphile Self-Assembly into Cylindrical Nanofibers. Journal of the American Chemical Society, 2011, 133, 3677-3683.	6.6	195
49	Self-Assembly and Biomaterials. Nano Letters, 2010, 10, 4783-4786.	4.5	191
50	Light-Driven Expansion of Spiropyran Hydrogels. Journal of the American Chemical Society, 2020, 142, 8447-8453.	6.6	190
51	Supramolecularâ€“covalent hybrid polymers for light-activated mechanical actuation. Nature Materials, 2020, 19, 900-909.	13.3	186
52	Lightâ€Triggered Bioactivity in Three Dimensions. Angewandte Chemie - International Edition, 2009, 48, 5946-5949.	7.2	185
53	Induction of Cancer Cell Death by Self-assembling Nanostructures Incorporating a Cytotoxic Peptide. Cancer Research, 2010, 70, 3020-3026.	0.4	182
54	A synergistic assembly of nanoscale lamellar photoconductor hybrids. Nature Materials, 2009, 8, 68-75.	13.3	174

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55	Aligned neurite outgrowth and directed cell migration in self-assembled monodomain gels. Biomaterials, 2014, 35, 185-195.	5.7	173
56	Simultaneous covalent and noncovalent hybrid polymerizations. Science, 2016, 351, 497-502.	6.0	164
57	Peptide Amphiphile Nanofibers with Conjugated Polydiacetylene Backbones in Their Core. Journal of the American Chemical Society, 2008, 130, 3892-3899.	6.6	163
58	Integration of Enzymes and Photosensitizers in a Hierarchical Mesoporous Metalâ€"Organic Framework for Light-Driven CO₂ Reduction. Journal of the American Chemical Society, 2020, 142, 1768-1773.	6.6	163
59	Fast and programmable locomotion of hydrogel-metal hybrids under light and magnetic fields. Science Robotics, 2020, 5, .	9.9	163
60	pH and Amphiphilic Structure Direct Supramolecular Behavior in Biofunctional Assemblies. Journal of the American Chemical Society, 2014, 136, 14746-14752.	6.6	161
61	Spontaneous and X-rayâ€"Triggered Crystallization at Long Range in Self-Assembling Filament Networks. Science, 2010, 327, 555-559.	6.0	159
62	Internal dynamics of a supramolecular nanofibre. Nature Materials, 2014, 13, 812-816.	13.3	154
63	Gel Scaffolds of BMPâ€2â€Binding Peptide Amphiphile Nanofibers for Spinal Arthrodesis. Advanced Healthcare Materials, 2015, 4, 131-141.	3.9	154
64	Sulfated glycopeptide nanostructures for multipotent protein activation. Nature Nanotechnology, 2017, 12, 821-829.	15.6	148
65	Organoapatites: Materials for artificial bone. I. Synthesis and microstructure. Journal of Biomedical Materials Research Part B, 1992, 26, 169-183.	3.0	146
66	Bioactive scaffolds with enhanced supramolecular motion promote recovery from spinal cord injury. Science, 2021, 374, 848-856.	6.0	144
67	Selfâ€assembling peptide amphiphile promotes plasticity of serotonergic fibers following spinal cord injury. Journal of Neuroscience Research, 2010, 88, 3161-3170.	1.3	141
68	Encapsulation of Carbon Nanotubes by Self-Assembling Peptide Amphiphiles. Langmuir, 2005, 21, 4705-4709.	1.6	139
69	Micropatterning of bioactive self-assembling gels. Soft Matter, 2009, 5, 1228.	1.2	137
70	Cell death versus cell survival instructed by supramolecular cohesion of nanostructures. Nature Communications, 2014, 5, 3321.	5.8	135
71	Synthesis of nanocomposites: Organoceramics. Journal of Materials Research, 1992, 7, 2599-2611.	1.2	134
72	CdS mineralization of hexagonal, lamellar, and cubic lyotropic liquid crystals. Materials Research Bulletin, 1999, 34, 463-469.	2.7	133

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73	A bioactive self-assembled membrane to promote angiogenesis. Biomaterials, 2011, 32, 1574-1582.	5.7	133
74	Switching of self-assembly in a peptide nanostructure with a specific enzyme. Soft Matter, 2011, 7, 9665.	1.2	132
75	One-Dimensional Assembly of Lipophilic Inorganic Nanoparticles Templated by Peptide-Based Nanofibers with Binding Functionalities. Angewandte Chemie - International Edition, 2005, 44, 1833-1836.	7.2	130
76	Drug release from hydrazone-containing peptide amphiphiles. Chemical Communications, 2011, 47, 7962.	2.2	128
77	Nucleation and Growth of Ordered Arrays of Silver Nanoparticles on Peptide Nanofibers: Hybrid Nanostructures with Antimicrobial Properties. Journal of the American Chemical Society, 2016, 138, 5507-5510.	6.6	128
78	A Torsional Strain Mechanism To Tune Pitch in Supramolecular Helices. Angewandte Chemie - International Edition, 2007, 46, 5873-5876.	7.2	124
79	The internal structure of self-assembled peptide amphiphiles nanofibers. Soft Matter, 2007, 3, 454.	1.2	123
80	Bioactive Nanofibers Instruct Cells to Proliferate and Differentiate During Enamel Regeneration. Journal of Bone and Mineral Research, 2008, 23, 1995-2006.	3.1	123
81	Regeneration of the cavernous nerve by Sonic hedgehog using aligned peptide amphiphile nanofibers. Biomaterials, 2011, 32, 1091-1101.	5.7	123
82	Bioactive DNA-Peptide Nanotubes Enhance the Differentiation of Neural Stem Cells Into Neurons. Nano Letters, 2015, 15, 603-609.	4.5	123
83	Presentation and Recognition of Biotin on Nanofibers Formed by Branched Peptide Amphiphiles. Nano Letters, 2005, 5, 249-252.	4.5	122
84	Super-resolution microscopy reveals structural diversity in molecular exchange among peptide amphiphile nanofibres. Nature Communications, 2016, 7, 11561.	5.8	121
85	A bioengineered peripheral nerve construct using aligned peptide amphiphile nanofibers. Biomaterials, 2014, 35, 8780-8790.	5.7	120
86	Tunable exciton binding energy in 2D hybrid layered perovskites through donorâ€“acceptor interactions within the organic layer. Nature Chemistry, 2020, 12, 672-682.	6.6	120
87	The Powerful Functions of Peptide-Based Bioactive Matrices for Regenerative Medicine. Annals of Biomedical Engineering, 2015, 43, 501-514.	1.3	118
88	Peptide amphiphile nanostructureâ€“heparin interactions and their relationship to bioactivity. Biomaterials, 2008, 29, 3298-3305.	5.7	114
89	Dynamic Display of Bioactivity through Hostâ€“Guest Chemistry. Angewandte Chemie - International Edition, 2013, 52, 12077-12080.	7.2	114
90	Tubular hydrogels of circumferentially aligned nanofibers to encapsulate and orient vascular cells. Biomaterials, 2012, 33, 5713-5722.	5.7	110

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91	Encapsulation of pyrene within self-assembled peptide amphiphile nanofibers. Journal of Materials Chemistry, 2005, 15, 4507.	6.7	108
92	Mirror Image Nanostructures. Journal of the American Chemical Society, 2005, 127, 7992-7993.	6.6	107
93	Supramolecular Packing Controls H₂ Photocatalysis in Chromophore Amphiphile Hydrogels. Journal of the American Chemical Society, 2015, 137, 15241-15246.	6.6	107
94	Covalent-supramolecular hybrid polymers as muscle-inspired anisotropic actuators. Nature Communications, 2018, 9, 2395.	5.8	102
95	Supramolecular Energy Materials. Advanced Materials, 2020, 32, e1907247.	11.1	101
96	Self-assembling quinquethiopheneâ€“oligopeptide hydrogelators. Soft Matter, 2009, 5, 1990.	1.2	100
97	Supramolecular Materials from Triblock Rodcoil Molecules Containing Phenylene Vinylene. Journal of the American Chemical Society, 1999, 121, 9852-9866.	6.6	98
98	Probing the Interior of Peptide Amphiphile Supramolecular Aggregates. Journal of the American Chemical Society, 2005, 127, 7337-7345.	6.6	96
99	Cholesteryl-(l-Lactic Acid)nÌ„Building Blocks for Self-Assembling Biomaterials. Macromolecules, 2002, 35, 746-759.	2.2	95
100	Nanostructure-templated control of drug release from peptide amphiphile nanofiber gels. Soft Matter, 2012, 8, 3586.	1.2	95
101	Tuning supramolecular mechanics to guide neuron development. Biomaterials, 2013, 34, 4749-4757.	5.7	93
102	Semiconductor-Encapsulated Peptideâˆ’Amphiphile Nanofibers. Journal of the American Chemical Society, 2004, 126, 12756-12757.	6.6	92
103	Magnetic Resonance Imaging of Self-Assembled Biomaterial Scaffolds. Bioconjugate Chemistry, 2005, 16, 1343-1348.	1.8	92
104	Supramolecular Materials with Electroactive Chemical Functions. Angewandte Chemie - International Edition, 2000, 39, 517-521.	7.2	91
105	Extended-Charge-Transfer Excitons in Crystalline Supramolecular Photocatalytic Scaffolds. Journal of the American Chemical Society, 2016, 138, 11762-11774.	6.6	91
106	Coassembled Cytotoxic and Pegylated Peptide Amphiphiles Form Filamentous Nanostructures with Potent Antitumor Activity in Models of Breast Cancer. ACS Nano, 2012, 6, 7956-7965.	7.3	90
107	Precision Templating with DNA of a Virus-like Particle with Peptide Nanostructures. Journal of the American Chemical Society, 2013, 135, 6211-6219.	6.6	90
108	Instructing cells with programmable peptide DNA hybrids. Nature Communications, 2017, 8, 15982.	5.8	87

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109	A hybrid nanofiber matrix to control the survival and maturation of brain neurons. Biomaterials, 2012, 33, 545-555.	5.7	86
110	Shapeâ€Đependent Targeting of Injured Blood Vessels by Peptide Amphiphile Supramolecular Nanostructures. Small, 2015, 11, 2750-2755.	5.2	81
111	Injectable biomimetic liquid crystalline scaffolds enhance muscle stem cell transplantation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7919-E7928.	3.3	81
112	Effects of Pore Morphology and Bone Ingrowth on Mechanical Properties of Microporous Titanium as an Orthopaedic Implant Material. Materials Transactions, 2004, 45, 1124-1131.	0.4	79
113	A Templating Approach for Monodisperse Self-Assembled Organic Nanostructures. Journal of the American Chemical Society, 2008, 130, 2742-2743.	6.6	79
114	Electrostatic Control of Bioactivity. Angewandte Chemie - International Edition, 2011, 50, 6292-6295.	7.2	79
115	Supramolecular Nanostructure Activates TrkB Receptor Signaling of Neuronal Cells by Mimicking Brain-Derived Neurotrophic Factor. Nano Letters, 2018, 18, 6237-6247.	4.5	79
116	Tuning Nanostructure Dimensions with Supramolecular Twisting. Journal of Physical Chemistry B, 2013, 117, 4604-4610.	1.2	76
117	Co-assembly of Peptide Amphiphiles and Lipids into Supramolecular Nanostructures Driven by Anionâˆ'Ï€ Interactions. Journal of the American Chemical Society, 2017, 139, 7823-7830.	6.6	75
118	Quantum Dot-Sensitized Photoreduction of CO₂ in Water with Turnover Number > 80,000. Journal of the American Chemical Society, 2021, 143, 18131-18138.	6.6	75
119	Semiconducting Nanowires from Hairpin-Shaped Self-Assembling Sexithiophenes. Journal of Physical Chemistry B, 2010, 114, 14778-14786.	1.2	74
120	A tenascin-C mimetic peptide amphiphile nanofiber gel promotes neurite outgrowth and cell migration of neurosphere-derived cells. Acta Biomaterialia, 2016, 37, 50-58.	4.1	74
121	Ferroelectric Polarization and Second Harmonic Generation in Supramolecular Cocrystals with Two Axes of Charge-Transfer. Journal of the American Chemical Society, 2017, 139, 9186-9191.	6.6	73
122	Semiconductor Quantum Dots Are Efficient and Recyclable Photocatalysts for Aqueous PET-RAFT Polymerization. ACS Macro Letters, 2020, 9, 7-13.	2.3	73
123	Tissue-Factor Targeted Peptide Amphiphile Nanofibers as an Injectable Therapy To Control Hemorrhage. ACS Nano, 2016, 10, 899-909.	7.3	72
124	Phase Diagram for Assembly of Biologically-Active Peptide Amphiphiles. Journal of Physical Chemistry B, 2008, 112, 441-447.	1.2	71
125	Improving Solar Cell Efficiency through Hydrogen Bonding: A Method for Tuning Active Layer Morphology. Chemistry of Materials, 2015, 27, 1201-1209.	3.2	71
126	Supramolecular Templating of Single and Double Nanohelices of Cadmium Sulfide. Small, 2005, 1, 694-697.	5.2	70

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127	Alginateâ€"peptide amphiphile coreâ€"shell microparticles as a targeted drug delivery system. RSC Advances, 2015, 5, 8753-8756.	1.7	68
128	Programmable Assembly of Peptide Amphiphile via Noncovalent-to-Covalent Bond Conversion. Journal of the American Chemical Society, 2017, 139, 8995-9000.	6.6	68
129	Lock-Arm Supramolecular Ordering: A Molecular Construction Set for Cocrystallizing Organic Charge Transfer Complexes. Journal of the American Chemical Society, 2014, 136, 17224-17235.	6.6	66
130	Supramolecular Nanofibers of Peptide Amphiphiles for Medicine. Israel Journal of Chemistry, 2013, 53, 530-554.	1.0	63
131	Assembling a lasing hybrid material with supramolecular polymers and nanocrystals. Nature Materials, 2003, 2, 689-694.	13.3	61
132	Design of materials with supramolecular polymers. Progress in Polymer Science, 2020, 111, 101310.	11.8	61
133	Crystal-Phase Transitions and Photocatalysis in Supramolecular Scaffolds. Journal of the American Chemical Society, 2017, 139, 6120-6127.	6.6	60
134	Structure and chemical stability in perovskiteâ€"polymer hybrid photovoltaic materials. Journal of Materials Chemistry A, 2019, 7, 1687-1699.	5.2	60
135	Semiconducting Single Crystals Comprising Segregated Arrays of Complexes of C₆₀. Journal of the American Chemical Society, 2015, 137, 2392-2399.	6.6	59
136	Î²1-Integrin and Integrin Linked Kinase Regulate Astrocytic Differentiation of Neural Stem Cells. PLoS ONE, 2014, 9, e104335.	1.1	58
137	Self-Assembly and Orientation of Hydrogen-Bonded Oligothiophene Polymorphs at Liquidâ€"Membraneâ€"Liquid Interfaces. Journal of the American Chemical Society, 2011, 133, 16486-16494.	6.6	57
138	Selfâ€assembly of Cytotoxic Peptide Amphiphiles into Supramolecular Membranes for Cancer Therapy. Advanced Healthcare Materials, 2013, 2, 126-133.	3.9	57
139	Synergistic photoactuation of bilayered spiropyran hydrogels for predictable origami-like shape change. Matter, 2021, 4, 1377-1390.	5.0	57
140	Polar and Luminescent Supramolecular Films. Journal of the American Chemical Society, 1998, 120, 5601-5602.	6.6	56
141	Molecular Crystallization Controlled by pH Regulates Mesoscopic Membrane Morphology. ACS Nano, 2012, 6, 10901-10909.	7.3	56
142	Grooved Nanowires from Self-Assembling Hairpin Molecules for Solar Cells. ACS Nano, 2012, 6, 2032-2040.	7.3	55
143	3D Printing of Supramolecular Polymer Hydrogels with Hierarchical Structure. Small, 2021, 17, e2005743.	5.2	54
144	Physical properties of hierarchically ordered self-assembled planar and spherical membranes. Soft Matter, 2010, 6, 1816.	1.2	53

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145	Peptide Amphiphile Nanofiber Delivery of Sonic Hedgehog Protein to Reduce Smooth Muscle Apoptosis in the Penis After Cavernous Nerve Resection. Journal of Sexual Medicine, 2011, 8, 78-89.	0.3	53
146	Water Dynamics from the Surface to the Interior of a Supramolecular Nanostructure. Journal of the American Chemical Society, 2017, 139, 8915-8921.	6.6	53
147	Supramolecular Tessellations by a Rigid Naphthalene Diimide Triangle. Journal of the American Chemical Society, 2019, 141, 17783-17795.	6.6	52
148	Electric Field Controlled Selfâ€Assembly of Hierarchically Ordered Membranes. Advanced Functional Materials, 2012, 22, 369-377.	7.8	51
149	Mimicking the Bioactivity of Fibroblast Growth Factor-2 Using Supramolecular Nanoribbons. ACS Biomaterials Science and Engineering, 2017, 3, 2166-2175.	2.6	51
150	Gd(III)-Labeled Peptide Nanofibers for Reporting on Biomaterial Localization <i>in Vivo</i>. ACS Nano, 2014, 8, 7325-7332.	7.3	50
151	Targeted Nitric Oxide Delivery by Supramolecular Nanofibers for the Prevention of Restenosis After Arterial Injury. Antioxidants and Redox Signaling, 2016, 24, 401-418.	2.5	50
152	Piezoelectricity in Polar Supramolecular Materials. Angewandte Chemie - International Edition, 2000, 39, 1486-1489.	7.2	49
153	Biopolymers and supramolecular polymers as biomaterials for biomedical applications. MRS Bulletin, 2015, 40, 1089-1101.	1.7	49
154	Proapoptotic Peptide Brush Polymer Nanoparticles via Photoinitiated Polymerizationâ€Induced Selfâ€Assembly. Angewandte Chemie - International Edition, 2020, 59, 19136-19142.	7.2	49
155	Organoapatites: Materials for artificial bone. II. Hardening reactions and properties. Journal of Biomedical Materials Research Part B, 1993, 27, 289-299.	3.0	48
156	¹⁹F Magnetic Resonance Imaging Signals from Peptide Amphiphile Nanostructures Are Strongly Affected by Their Shape. ACS Nano, 2016, 10, 7376-7384.	7.3	48
157	Surface Engineered Polymersomes for Enhanced Modulation of Dendritic Cells During Cardiovascular Immunotherapy. Advanced Functional Materials, 2019, 29, 1904399.	7.8	47
158	A Donorâ€"Acceptor [2]Catenane for Visible Light Photocatalysis. Journal of the American Chemical Society, 2021, 143, 8000-8010.	6.6	47
159	Chromophore Dipole Directs Morphology and Photocatalytic Hydrogen Generation. Journal of the American Chemical Society, 2018, 140, 4965-4968.	6.6	46
160	Molecular Control of Internal Crystallization and Photocatalytic Function in Supramolecular Nanostructures. CheM, 2018, 4, 1596-1608.	5.8	46
161	Bioactive peptide amphiphile nanofiber gels enhance burn wound healing. Burns, 2019, 45, 1112-1121.	1.1	44
162	Supramolecular Exchange among Assemblies of Opposite Charge Leads to Hierarchical Structures. Journal of the American Chemical Society, 2020, 142, 12216-12225.	6.6	44

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163	Epitope topography controls bioactivity in supramolecular nanofibers. Biomaterials Science, 2015, 3, 520-532.	2.6	43
164	Photocatalytic Aqueous CO₂ Reduction to CO and CH₄ Sensitized by Ullazine Supramolecular Polymers. Journal of the American Chemical Society, 2022, 144, 3127-3136.	6.6	43
165	Synthesis and self-organization of rod-dendron and dendron-rod-dendron molecules. Journal of Polymer Science Part A, 2003, 41, 3501-3518.	2.5	42
166	Bioactive Nanofibers Induce Neural Transdifferentiation of Human Bone Marrow Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2018, 10, 41046-41055.	4.0	42
167	The promotion of functional urinary bladder regeneration using anti-inflammatory nanofibers. Biomaterials, 2014, 35, 9311-9321.	5.7	41
168	Sonic hedgehog delivery from self-assembled nanofiber hydrogels reduces the fibrotic response in models of erectile dysfunction. Acta Biomaterialia, 2016, 32, 89-99.	4.1	41
169	Allomelanin: A Biopolymer of Intrinsic Microporosity. Journal of the American Chemical Society, 2021, 143, 4005-4016.	6.6	41
170	Crystalline polymorphism induced by charge regulation in ionic membranes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16309-16314.	3.3	40
171	Organoapatites: Materials for artificial bone. III. Biological testing. Journal of Biomedical Materials Research Part B, 1993, 27, 301-311.	3.0	39
172	Nanostructured Semiconductors Templated by Cholesteryl-Oligo(Ethylene Oxide) Amphiphiles. Chemistry of Materials, 2003, 15, 1249-1255.	3.2	39
173	Bioinspired Magnetite Mineralization of Peptideâˆ’Amphiphile Nanofibers. Chemistry of Materials, 2011, 23, 2005-2007.	3.2	38
174	Stepwise self-assembly to improve solar cell morphology. Journal of Materials Chemistry A, 2013, 1, 11674.	5.2	38
175	Asymmetric Peptide Nanoribbons. Nano Letters, 2016, 16, 6967-6974.	4.5	38
176	Molecular Variables in the Self-Assembly of Supramolecular Nanostructures. Macromolecules, 2000, 33, 3550-3556.	2.2	37
177	Electrostatic Control of Polymorphism in Charged Amphiphile Assemblies. Journal of Physical Chemistry B, 2017, 121, 1623-1628.	1.2	37
178	Gelator Length Precisely Tunes Supramolecular Hydrogel Stiffness and Neuronal Phenotype in 3D Culture. ACS Biomaterials Science and Engineering, 2020, 6, 1196-1207.	2.6	36
179	Selective visible-light photocatalysis of acetylene to ethylene using a cobalt molecular catalyst and water as a proton source. Nature Chemistry, 2022, 14, 1007-1012.	6.6	36
180	<i>In vivo</i>migration of endogenous brain progenitor cells guided by an injectable peptide amphiphile biomaterial. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e2123-e2133.	1.3	34

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