Thomas R Scheibel

List of Publications by Year
in descending order

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Version: 2024-02-01

232 papers	14,790 citations	20759 60 h-index	22764 112 g-index
248 all docs	248 docs citations	248 times ranked	10864 citing authors

#	Article	IF	Citations
1	Conducting nanowires built by controlled self-assembly of amyloid fibers and selective metal deposition. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4527-4532.	3.3	712
2	Strategies and Molecular Design Criteria for 3D Printable Hydrogels. Chemical Reviews, 2016, 116, 1496-1539.	23.0	580
3	Spider Silk: From Soluble Protein to Extraordinary Fiber. Angewandte Chemie - International Edition, 2009, 48, 3584-3596.	7.2	473
4	Polymeric materials based on silk proteins. Polymer, 2008, 49, 4309-4327.	1.8	438
5	Controlling silk fibroin particle features for drug delivery. Biomaterials, 2010, 31, 4583-4591.	5.7	433
6	A conserved spider silk domain acts as a molecular switch that controls fibre assembly. Nature, 2010, 465, 239-242.	13.7	380
7	Assembly mechanism of recombinant spider silk proteins. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6590-6595.	3.3	339
8	Primary Structure Elements of Spider Dragline Silks and Their Contribution to Protein Solubilityâ€. Biochemistry, 2004, 43, 13604-13612.	1.2	335
9	Composite materials based on silk proteins. Progress in Polymer Science, 2010, 35, 1093-1115.	11.8	286
10	The elaborate structure of spider silk. Prion, 2008, 2, 154-161.	0.9	284
11	Decoding the secrets of spider silk. Materials Today, 2011, 14, 80-86.	8.3	279
12	Spider silks: recombinant synthesis, assembly, spinning, and engineering of synthetic proteins. Microbial Cell Factories, 2004, 3, 14.	1.9	248
13	Two chaperone sites in Hsp90 differing in substrate specificity and ATP dependence. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 1495-1499.	3.3	242
14	Biomimetic Fibers Made of Recombinant Spidroins with the Same Toughness as Natural Spider Silk. Advanced Materials, 2015, 27, 2189-2194.	11.1	217
15	Biotechnological Production of Spider-Silk Proteins Enables New Applications. Macromolecular Bioscience, 2007, 7, 401-409.	2.1	216
16	Biomedical Applications of Recombinant Silkâ€Based Materials. Advanced Materials, 2018, 30, e1704636.	11.1	216
17	Silkâ€based materials for biomedical applications. Biotechnology and Applied Biochemistry, 2010, 55, 155-167.	1.4	210
18	Biofabrication of Cellâ€Loaded 3D Spider Silk Constructs. Angewandte Chemie - International Edition, 2015, 54, 2816-2820.	7.2	207

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19	Cell adhesion and proliferation on RGD-modified recombinant spider silk proteins. Biomaterials, 2012, 33, 6650-6659.	5.7	184
20	Novel Assembly Properties of Recombinant Spider Dragline Silk Proteins. Current Biology, 2004, 14, 2070-2074.	1.8	175
21	Protein fibers as performance proteins: new technologies and applications. Current Opinion in Biotechnology, 2005, 16, 427-433.	3.3	173
22	Recombinant Spider Silk Proteins for Applications in Biomaterials. Macromolecular Bioscience, 2010, 10, 998-1007.	2.1	166
23	The Hsp90 complexâ€"a super-chaperone machine as a novel drug target. Biochemical Pharmacology, 1998, 56, 675-682.	2.0	164
24	Spider Silk and Amyloid Fibrils: A Structural Comparison. Macromolecular Bioscience, 2007, 7, 183-188.	2.1	161
25	Peptide adsorption on a hydrophobic surface results from an interplay of solvation, surface, and intrapeptide forces. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2842-2847.	3.3	147
26	An Engineered Spider Silk Protein Forms Microspheres. Angewandte Chemie - International Edition, 2008, 47, 4592-4594.	7.2	145
27	Recombinant spider silk particles as drug delivery vehicles. Biomaterials, 2011, 32, 2233-2240.	5.7	137
28	Rheological characterization of hydrogels formed by recombinantly produced spider silk. Applied Physics A: Materials Science and Processing, 2006, 82, 261-264.	1.1	136
29	Hierarchical structures made of proteins. The complex architecture of spider webs and their constituent silk proteins. Chemical Society Reviews, 2010, 39, 156-164.	18.7	135
30	Electroconductive Biohybrid Hydrogel for Enhanced Maturation and Beating Properties of Engineered Cardiac Tissues. Advanced Functional Materials, 2018, 28, 1803951.	7.8	135
31	Processing and modification of films made from recombinant spider silk proteins. Applied Physics A: Materials Science and Processing, 2006, 82, 219-222.	1.1	131
32	pHâ€Dependent Dimerization and Saltâ€Dependent Stabilization of the Nâ€terminal Domain of Spider Dragline Silkâ€"Implications for Fiber Formation. Angewandte Chemie - International Edition, 2011, 50, 310-313.	7.2	123
33	Controlled Hydrogel Formation of a Recombinant Spider Silk Protein. Biomacromolecules, 2011, 12, 2488-2495.	2.6	121
34	Spider Silk for Tissue Engineering Applications. Molecules, 2020, 25, 737.	1.7	120
35	Engineered Microcapsules Fabricated from Reconstituted Spider Silk. Advanced Materials, 2007, 19, 1810-1815.	11.1	119
36	Copolymer/Clay Nanocomposites for Biomedical Applications. Advanced Functional Materials, 2020, 30, 1908101.	7.8	115

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37	Recombinant Production of Spider Silk Proteins. Advances in Applied Microbiology, 2013, 82, 115-153.	1.3	111
38	The charged region of Hsp90 modulates the function of the N-terminal domain. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 1297-1302.	3.3	106
39	The role of conformational flexibility in prion propagation and maintenance for Sup35p. , 2001, 8, 958-962.		104
40	Processing Conditions for the Formation of Spider Silk Microspheres. ChemSusChem, 2008, 1, 413-416.	3.6	103
41	Microfluidics-Produced Collagen Fibers Show Extraordinary Mechanical Properties. Nano Letters, 2016, 16, 5917-5922.	4.5	100
42	Spider Silk Coatings as a Bioshield to Reduce Periprosthetic Fibrous Capsule Formation. Advanced Functional Materials, 2014, 24, 2658-2666.	7.8	99
43	ATP-binding Properties of Human Hsp90. Journal of Biological Chemistry, 1997, 272, 18608-18613.	1.6	95
44	Coatings and Films Made of Silk Proteins. ACS Applied Materials & Interfaces, 2014, 6, 15611-15625.	4.0	94
45	Assessment of the ATP Binding Properties of Hsp90. Journal of Biological Chemistry, 1996, 271, 10035-10041.	1.6	91
46	Silk-inspired polymers and proteins. Biochemical Society Transactions, 2009, 37, 677-681.	1.6	91
47	The elongation of yeast prion fibers involves separable steps of association and conversion. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 2287-2292.	3.3	89
48	The Amphiphilic Properties of Spider Silks Are Important for Spinning. Angewandte Chemie - International Edition, 2007, 46, 3559-3562.	7.2	88
49	Bidirectional amyloid fiber growth for a yeast prion determinant. Current Biology, 2001, 11, 366-369.	1.8	87
50	Processing of recombinant spider silk proteins into tailor-made materials for biomaterials applications. Current Opinion in Biotechnology, 2014, 29, 62-69.	3.3	84
51	Recombinant Spider Silksâ€"Biopolymers with Potential for Future Applications. Polymers, 2011, 3, 640-661.	2.0	78
52	Structural Analysis of Spider Silk Films. Supramolecular Chemistry, 2006, 18, 465-471.	1.5	77
53	The role of salt and shear on the storage and assembly of spider silk proteins. Journal of Structural Biology, 2010, 170, 413-419.	1.3	76
54	Polymer Gradient Materials: Can Nature Teach Us New Tricks?. Macromolecular Materials and Engineering, 2012, 297, 938-957.	1.7	76

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55	Interactions of Fibroblasts with Different Morphologies Made of an Engineered Spider Silk Protein. Advanced Engineering Materials, 2012, 14, B67.	1.6	76
56	The role of terminal domains during storage and assembly of spider silk proteins. Biopolymers, 2012, 97, 355-361.	1.2	75
57	Interactions of cells with silk surfaces. Journal of Materials Chemistry, 2012, 22, 14330.	6.7	74
58	Influence of repeat numbers on self-assembly rates of repetitive recombinant spider silk proteins. Journal of Structural Biology, 2014, 186, 431-437.	1.3	69
59	Structural and functional features of a collagen-binding matrix protein from the mussel byssus. Nature Communications, 2014, 5, 3392.	5.8	66
60	The yeast Sup35NM domain propagates as a prion in mammalian cells. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 462-467.	3.3	65
61	Structural characterization and functionalization of engineered spider silk films. Soft Matter, 2010, 6, 4168.	1.2	65
62	Nanomaterial Building Blocks Based on Spider Silkâ€"Oligonucleotide Conjugates. ACS Nano, 2014, 8, 1342-1349.	7.3	63
63	Engineering of silk proteins for materials applications. Current Opinion in Biotechnology, 2019, 60, 213-220.	3.3	62
64	Folding and association of Î²-galactosidase. Journal of Molecular Biology, 1998, 282, 1083-1091.	2.0	60
65	Impact of initial solvent on thermal stability and mechanical properties of recombinant spider silk films. Journal of Materials Chemistry, 2011, 21, 13594.	6.7	60
66	Recombinant spider silk-based bioinks. Biofabrication, 2017, 9, 044104.	3.7	58
67	Enzymatic Degradation of Films, Particles, and Nonwoven Meshes Made of a Recombinant Spider Silk Protein. ACS Biomaterials Science and Engineering, 2015, 1, 247-259.	2.6	56
68	Hydrophobic and Hofmeister Effects on the Adhesion of Spider Silk Proteins onto Solid Substrates:â€‰ An AFM-Based Single-Molecule Study. Langmuir, 2008, 24, 1350-1355.	1.6	55
69	To spin or not to spin: spider silk fibers and more. Applied Microbiology and Biotechnology, 2015, 99, 9361-9380.	1.7	55
70	Nature as a blueprint for polymer material concepts: Protein fiber-reinforced composites as holdfasts of mussels. Progress in Polymer Science, 2014, 39, 1564-1583.	11.8	54
71	Biofabrication of 3D constructs: fabrication technologies and spider silk proteins as bioinks. Pure and Applied Chemistry, 2015, 87, 737-749.	0.9	53
72	Mussel collagen molecules with silk-like domains as load-bearing elements in distal byssal threads. Journal of Structural Biology, 2011, 175, 339-347.	1.3	51

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73	Spider Silk. Progress in Molecular Biology and Translational Science, 2011, 103, 131-185.	0.9	47
74	Mimicking biopolymers on a molecular scale: nano(bio)technology based on engineered proteins. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1727-1747.	1.6	46
75	Varying surface hydrophobicities of coatings made of recombinant spider silk proteins. Journal of Materials Chemistry, 2012, 22, 22050.	6.7	46
76	Two-in-One Composite Fibers With Side-by-Side Arrangement of Silk Fibroin and Poly(<scp>l</scp>-lactide) by Electrospinning. Macromolecular Materials and Engineering, 2016, 301, 48-55.	1.7	46
77	Surface Features of Recombinant Spider Silk Protein eADF4(Îº16)â€Made Materials are Wellâ€Suited for Cardiac Tissue Engineering. Advanced Functional Materials, 2017, 27, 1701427.	7.8	46
78	Cell-to-cell propagation of infectious cytosolic protein aggregates. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5951-5956.	3.3	45
79	Engineering of Recombinant Spider Silk Proteins Allows Defined Uptake and Release of Substances. Journal of Pharmaceutical Sciences, 2015, 104, 988-994.	1.6	45
80	Foams Made of Engineered Recombinant Spider Silk Proteins as 3D Scaffolds for Cell Growth. ACS Biomaterials Science and Engineering, 2016, 2, 517-525.	2.6	45
81	Preparation and mechanical properties of layers made of recombinant spider silk proteins and silk from silk worm. Applied Physics A: Materials Science and Processing, 2006, 82, 253-260.	1.1	44
82	Permeability of silk microcapsules made by the interfacial adsorption of protein. Physical Chemistry Chemical Physics, 2007, 9, 6442.	1.3	44
83	Structural Analysis of Proteinaceous Components in Byssal Threads of the Mussel <i>Mytilus galloprovincialis</i>. Macromolecular Bioscience, 2009, 9, 162-168.	2.1	44
84	Structural Insights into Water-Based Spider Silk Proteinâ€“Nanoclay Composites with Excellent Gas and Water Vapor Barrier Properties. ACS Applied Materials & Interfaces, 2016, 8, 25535-25543.	4.0	44
85	Engineered hybrid spider silk particles as delivery system for peptide vaccines. Biomaterials, 2018, 172, 105-115.	5.7	44
86	Multifunctional Biomaterials: Combining Material Modification Strategies for Engineering of Cell-Contacting Surfaces. ACS Applied Materials & Interfaces, 2020, 12, 21342-21367.	4.0	43
87	<scp>Chitosanâ€based</scp> nanocomposites for medical applications. Journal of Polymer Science, 2021, 59, 1610-1642.	2.0	43
88	Production and processing of spider silk proteins. Journal of Polymer Science Part A, 2009, 47, 3957-3963.	2.5	42
89	Recombinant Production, Characterization, and Fiber Spinning of an Engineered Short Major Ampullate Spidroin (MaSp1s). Biomacromolecules, 2017, 18, 1365-1372.	2.6	41
90	Structure and post-translational modifications of the web silk protein spidroin-1 from Nephila spiders. Journal of Proteomics, 2014, 105, 174-185.	1.2	40

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91	Enhanced cellular uptake of engineered spider silk particles. Biomaterials Science, 2015, 3, 543-551.	2.6	40
92	Structural changes of thin films from recombinant spider silk proteins upon post-treatment. Applied Physics A: Materials Science and Processing, 2007, 89, 655-661.	1.1	39
93	Characterization of recombinantly produced spider flagelliform silk domains. Journal of Structural Biology, 2010, 170, 420-425.	1.3	39
94	Dragline, Egg Stalk and Byssus: A Comparison of Outstanding Protein Fibers and Their Potential for Developing New Materials. Advanced Functional Materials, 2013, 23, 4467-4482.	7.8	39
95	Surface Modification of Polymeric Biomaterials Using Recombinant Spider Silk Proteins. ACS Biomaterials Science and Engineering, 2017, 3, 767-775.	2.6	39
96	Interplay of Different Major Ampullate Spidroins during Assembly and Implications for Fiber Mechanics. Advanced Materials, 2021, 33, e2006499.	11.1	39
97	Engineered Spider Silk Proteinâ€‹<scp>B</scp>ased Composites for Drug Delivery. Macromolecular Bioscience, 2013, 13, 1431-1437.	2.1	38
98	Foundation of the Outstanding Toughness in Biomimetic and Natural Spider Silk. Biomacromolecules, 2017, 18, 3954-3962.	2.6	38
99	Centrifugal Electrospinning Enables the Production of Meshes of Ultrathin Polymer Fibers. ACS Applied Polymer Materials, 2020, 2, 4360-4367.	2.0	36
100	Spider Silk Capsules as Protective Reaction Containers for Enzymes. Advanced Functional Materials, 2014, 24, 763-768.	7.8	35
101	The Power of Silk Technology for Energy Applications. Advanced Energy Materials, 2021, 11, 2100519.	10.2	34
102	Single molecule force measurements delineate salt, pH and surface effects on biopolymer adhesion. Physical Biology, 2009, 6, 025004.	0.8	33
103	Mechanical Testing of Engineered Spider Silk Filaments Provides Insights into Molecular Features on a Mesoscale. ACS Applied Materials & Interfaces, 2017, 9, 892-900.	4.0	33
104	Noxic effects of polystyrene microparticles on murine macrophages and epithelial cells. Scientific Reports, 2021, 11, 15702.	1.6	33
105	Formulation of poorly water-soluble substances using self-assembling spider silk protein. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 331, 126-132.	2.3	32
106	Glycopolymer Functionalization of Engineered Spider Silk Proteinâ€based Materials for Improved Cell Adhesion. Macromolecular Bioscience, 2014, 14, 936-942.	2.1	32
107	Enhanced Antibacterial Activity of Se Nanoparticles Upon Coating with Recombinant Spider Silk Protein eADF4(Îº16) . International Journal of Nanomedicine, 2020, Volume 15, 4275-4288.	3.3	31
108	Protein Aggregation as a Cause for Disease. , 2006, , 199-219.		30

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109	Probing the Role of PrP Repeats in Conformational Conversion and Amyloid Assembly of Chimeric Yeast Prions. Journal of Biological Chemistry, 2007, 282, 34204-34212.	1.6	30
110	Alternative assembly pathways of the amyloidogenic yeast prion determinant Sup35â€“NM. EMBO Reports, 2007, 8, 1196-1201.	2.0	30
111	Learning From Nature: Synthesis and Characterization of Longitudinal Polymer Gradient Materials Inspired by Mussel Byssus Threads. Macromolecular Rapid Communications, 2012, 33, 206-211.	2.0	30
112	Controllable cell adhesion, growth and orientation on layered silk protein films. Biomaterials Science, 2013, 1, 1244.	2.6	30
113	Engineered spider silk-based 2D and 3D materials prevent microbial infestation. Materials Today, 2020, 41, 21-33.	8.3	30
114	Silk-Based Materials for Hard Tissue Engineering. Materials, 2021, 14, 674.	1.3	30
115	Aqueous electrospinning of recombinant spider silk proteins. Materials Science and Engineering C, 2020, 106, 110145.	3.8	30
116	Controlled Hierarchical Assembly of Spider Silk-DNA Chimeras into Ribbons and Raft-Like Morphologies. Nano Letters, 2014, 14, 3999-4004.	4.5	29
117	Acidic Residues Control the Dimerization of the N-terminal Domain of Black Widow Spidersâ€™ Major Ampullate Spidroin 1. Scientific Reports, 2016, 6, 34442.	1.6	29
118	Intrinsic Vascularization of Recombinant eADF4(C16) Spider Silk Matrices in the Arteriovenous Loop Model. Tissue Engineering - Part A, 2019, 25, 1504-1513.	1.6	29
119	Supposedly identical microplastic particles substantially differ in their material properties influencing particle-cell interactions and cellular responses. Journal of Hazardous Materials, 2022, 425, 127961.	6.5	29
120	Control of Drug Loading and Release Properties of Spider Silk Sub-Microparticles. BioNanoScience, 2012, 2, 67-74.	1.5	28
121	Air Filter Devices Including Nonwoven Meshes of Electrospun Recombinant Spider Silk Proteins. Journal of Visualized Experiments, 2013, , e50492.	0.2	28
122	Biomineralization of Engineered Spider Silk Protein-Based Composite Materials for Bone Tissue Engineering. Materials, 2016, 9, 560.	1.3	28
123	Conformational Stability and Interplay of Helical N- and C-Terminal Domains with Implications on Major Ampullate Spidroin Assembly. Biomacromolecules, 2017, 18, 835-845.	2.6	28
124	Microfluidic nozzle device for ultrafine fiber solution blow spinning with precise diameter control. Lab on A Chip, 2018, 18, 2225-2234.	3.1	28
125	Utilizing Conformational Changes for Patterning Thin Films of Recombinant Spider Silk Proteins. Biomacromolecules, 2012, 13, 3189-3199.	2.6	27
126	Ultrathin Spider Silk Films: Insights into Spider Silk Assembly on Surfaces. ACS Applied Polymer Materials, 2019, 1, 3366-3374.	2.0	27

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127	<i>In Vivo</i> Coating of Bacterial Magnetic Nanoparticles by Magnetosome Expression of Spider Silk-Inspired Peptides. Biomacromolecules, 2018, 19, 962-972.	2.6	26
128	Pristine and artificially-aged polystyrene microplastic particles differ in regard to cellular response. Journal of Hazardous Materials, 2022, 435, 128955.	6.5	26
129	Conquering isoleucine auxotrophy of Escherichia coli BLR(DE3) to recombinantly produce spider silk proteins in minimal media. Biotechnology Letters, 2007, 29, 1741-1744.	1.1	25
130	Nerve guidance conduit design based on self-rolling tubes. Materials Today Bio, 2020, 5, 100042.	2.6	25
131	Enhanced vascularization and de novo tissue formation in hydrogels made of engineered RGD-tagged spider silk proteins in the arteriovenous loop model. Biofabrication, 2021, 13, 045003.	3.7	25
132	Silk nanofibril selfâ€assembly versus electrospinning. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2018, 10, e1509.	3.3	24
133	The MyoRobot: A novel automated biomechatronics system to assess voltage/Ca2+ biosensors and active/passive biomechanics in muscle and biomaterials. Biosensors and Bioelectronics, 2018, 102, 589-599.	5.3	24
134	Roll-to-Roll Production of Spider Silk Nanofiber Nonwoven Meshes Using Centrifugal Electrospinning for Filtration Applications. Molecules, 2020, 25, 5540.	1.7	24
135	Artificial Egg Stalks Made of a Recombinantly Produced Lacewing Silk Protein. Angewandte Chemie - International Edition, 2012, 51, 6521-6524.	7.2	23
136	Micromechanical characterization of spider silk particles. Biomaterials Science, 2013, 1, 1160.	2.6	23
137	Dimerization of the Conserved N-Terminal Domain of a Spider Silk Protein Controls the Self-Assembly of the Repetitive Core Domain. Biomacromolecules, 2017, 18, 2521-2528.	2.6	23
138	Recombinant Spider Silk Gels Derived from Aqueousâ€"Organic Solvents as Depots for Drugs. Angewandte Chemie - International Edition, 2021, 60, 11847-11851.	7.2	23
139	Functional Amyloids Used by Organisms: A Lesson in Controlling Assembly. Macromolecular Chemistry and Physics, 2010, 211, 127-135.	1.1	22
140	Cellular uptake of drug loaded spider silk particles. Biomaterials Science, 2016, 4, 1515-1523.	2.6	22
141	Self-Assembly of Spider Silk-Fusion Proteins Comprising Enzymatic and Fluorescence Activity. Bioconjugate Chemistry, 2018, 29, 898-904.	1.8	22
142	Recombinant Spider Silkâ€"Silica Hybrid Scaffolds with Drugâ€Releasing Properties for Tissue Engineering Applications. Macromolecular Rapid Communications, 2020, 41, e1900426.	2.0	22
143	Designed Spider Silk-Based Drug Carrier for Redox- or pH-Triggered Drug Release. Biomacromolecules, 2020, 21, 4904-4912.	2.6	22
144	Dependence of Mechanical Properties of Lacewing Egg Stalks on Relative Humidity. Biomacromolecules, 2012, 13, 3730-3735.	2.6	21

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145	Colloidal Properties of Recombinant Spider Silk Protein Particles. Journal of Physical Chemistry C, 2016, 120, 18015-18027.	1.5	21
146	Cations influence the cross-linking of hydrogels made of recombinant, polyanionic spider silk proteins. Materials Letters, 2016, 183, 101-104.	1.3	21
147	Recombinant Spider Silk Hydrogels for Sustained Release of Biologicals. ACS Biomaterials Science and Engineering, 2018, 4, 1750-1759.	2.6	21
148	Recombinant Production of Mussel Byssus Inspired Proteins. Biotechnology Journal, 2018, 13, e1800146.	1.8	21
149	Surface Modification of Spider Silk Particles to Direct Biomolecular Corona Formation. ACS Applied Materials & Interfaces, 2020, 12, 24635-24643.	4.0	21
150	Recombinant spider silk protein eADF4(C16)-RGD coatings are suitable for cardiac tissue engineering. Scientific Reports, 2020, 10, 8789.	1.6	21
151	Ion and seed dependent fibril assembly of a spidroin core domain. Journal of Structural Biology, 2015, 191, 130-138.	1.3	20
152	Recombinant Spider Silk and Collagen-Based Nerve Guidance Conduits Support Neuronal Cell Differentiation and Functionality in Vitro. ACS Applied Bio Materials, 2019, 2, 4872-4880.	2.3	20
153	Protein Gradient Films of Fibroin and Gelatine. Macromolecular Bioscience, 2013, 13, 1396-1403.	2.1	19
154	Designing of spider silk proteins for human induced pluripotent stem cell-based cardiac tissue engineering. Materials Today Bio, 2021, 11, 100114.	2.6	19
155	Data for microbe resistant engineered recombinant spider silk protein based 2D and 3D materials. Data in Brief, 2020, 32, 106305.	0.5	19
156	Probing the adhesion properties of alginate hydrogels: a new approach towards the preparation of soft colloidal probes for direct force measurements. Soft Matter, 2017, 13, 578-589.	1.2	18
157	Prion protein/protein interactions: fusion with yeast Sup35pâ€NM modulates cytosolic PrP aggregation in mammalian cells. FASEB Journal, 2008, 22, 762-773.	0.2	17
158	Surface properties of spider silk particles in solution. Biomaterials Science, 2013, 1, 1166.	2.6	17
159	Coacervation of the Recombinant <i>Mytilus galloprovincialis</i> Foot Protein-3b. Biomacromolecules, 2018, 19, 3612-3619.	2.6	17
160	Functionalized DNA-spider silk nanohydrogels for controlled protein binding and release. Materials Today Bio, 2020, 6, 100045.	2.6	17
161	Patterning of proteinâ€based materials. Biopolymers, 2021, 112, e23412.	1.2	17
162	Silkâ€Based Fine Dust Filters for Air Filtration. Advanced Sustainable Systems, 2017, 1, 1700079.	2.7	17

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163	Sea star-inspired recombinant adhesive proteins self-assemble and adsorb on surfaces in aqueous environments to form cytocompatible coatings. Acta Biomaterialia, 2020, 112, 62-74.	4.1	16
164	Contribution of N- and C-terminal domains to the function of Hsp90 in Saccharomyces cerevisiae. Molecular Microbiology, 1999, 34, 701-713.	1.2	15
165	Universal nanothin silk coatings <i>via</i> controlled spidroin self-assembly. Biomaterials Science, 2019, 7, 683-695.	2.6	15
166	Amyloid Formation of a Yeast Prion Determinant. Journal of Molecular Neuroscience, 2004, 23, 013-022.	1.1	14
167	Spatial stochastic resonance in protein hydrophobicity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 346, 33-41.	0.9	14
168	Spinnenseidenproteine: Grundlage fÃ¼r neue Materialien. Chemie in Unserer Zeit, 2007, 41, 306-314.	0.1	14
169	Effect of oculopharyngeal muscular dystrophy-associated extension of seven alanines on the fibrillation properties of the N-terminal domain of PABPN1. FEBS Journal, 2007, 274, 346-355.	2.2	14
170	Interfacial rheological properties of recombinant spider-silk proteins. Biointerphases, 2009, 4, 43-46.	0.6	14
171	Applicability of biotechnologically produced insect silks. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2017, 72, 365-385.	0.6	14
172	Molecular Design of Performance Proteins With Repetitive Sequences. Methods in Molecular Biology, 2008, 474, 3-14.	0.4	14
173	Processing of Continuous Nonâ€Crosslinked Collagen Fibers for Microtissue Formation at the Muscleâ€Tendon Interface. Advanced Functional Materials, 0, , 2112238.	7.8	14
174	Engineered Collagen: A Redox Switchable Framework for Tunable Assembly and Fabrication of Biocompatible Surfaces. ACS Biomaterials Science and Engineering, 2018, 4, 2106-2114.	2.6	13
175	Spider Silk Fusion Proteins for Controlled Collagen Binding and Biomineralization. ACS Biomaterials Science and Engineering, 2020, 6, 5599-5608.	2.6	13
176	Nanostructured, Self-Assembled Spider Silk Materials for Biomedical Applications. Advances in Experimental Medicine and Biology, 2019, 1174, 187-221.	0.8	13
177	Siteâ€Specific Functionalization of Recombinant Spider Silk Janus Fibers. Angewandte Chemie - International Edition, 2022, 61, .	7.2	13
178	Biosynthesis of an Elastin-Mimetic Polypeptide with Two Different Chemical Functional Groups within the Repetitive Elastin Fragment. Macromolecular Bioscience, 2005, 5, 494-501.	2.1	12
179	Silkâ€"a biomaterial with several facets. Applied Physics A: Materials Science and Processing, 2006, 82, 191-192.	1.1	12
180	Influence of divalent copper, manganese and zinc ions on fibril nucleation and elongation of the amyloid-like yeast prion determinant Sup35p-NM. Journal of Inorganic Biochemistry, 2009, 103, 1711-1720.	1.5	12

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181	Towards the Recombinant Production of Mussel Byssal Collagens. Journal of Adhesion, 2010, 86, 10-24.	1.8	12
182	Structural diversity of a collagen-binding matrix protein from the byssus of blue mussels upon refolding. Journal of Structural Biology, 2014, 186, 75-85.	1.3	12
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