

Fritz Vollrath

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178
papers

11,710
citations

61
h-index

103
g-index

189
ext. papers

12,922
ext. citations

7.9
avg, IF

6.63
L-index

#	Paper	IF	Citations
178	Liquid crystalline spinning of spider silk. <i>Nature</i> , 2001 , 410, 541-8	50.4	1244
177	Surprising strength of silkworm silk. <i>Nature</i> , 2002 , 418, 741	50.4	724
176	Relationships between supercontraction and mechanical properties of spider silk. <i>Nature Materials</i> , 2005 , 4, 901-5	27	225
175	Sexual dimorphism and distorted sex ratios in spiders. <i>Nature</i> , 1992 , 360, 156-159	50.4	224
174	Modulation of the mechanical properties of spider silk by coating with water. <i>Nature</i> , 1989 , 340, 305-307	50.4	224
173	Spider silk as archetypal protein elastomer. <i>Soft Matter</i> , 2006 , 2, 377-385	3.6	220
172	Variability in the mechanical properties of spider silks on three levels: interspecific, intraspecific and intraindividual. <i>International Journal of Biological Macromolecules</i> , 1999 , 24, 301-6	7.9	212
171	Changes in element composition along the spinning duct in a <i>Nephila</i> spider. <i>Die Naturwissenschaften</i> , 2001 , 88, 179-82	2	188
170	Strength and structure of spiders' silks. <i>Reviews in Molecular Biotechnology</i> , 2000 , 74, 67-83		188
169	Compounds in the droplets of the orb spider's viscid spiral. <i>Nature</i> , 1990 , 345, 526-528	50.4	184
168	Stable isotopes in elephant hair document migration patterns and diet changes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 371-3	11.5	170
167	Biology of spider silk. <i>International Journal of Biological Macromolecules</i> , 1999 , 24, 81-8	7.9	169
166	Amyloidogenic nature of spider silk. <i>FEBS Journal</i> , 2002 , 269, 4159-63		167
165	Proline and processing of spider silks. <i>Biomacromolecules</i> , 2008 , 9, 116-21	6.9	166
164	Dwarf males. <i>Trends in Ecology and Evolution</i> , 1998 , 13, 159-63	10.9	157
163	Conformation transition kinetics of <i>Bombyx mori</i> silk protein. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007 , 68, 223-31	4.2	154
162	Behavioural reactions of elephants towards a dying and deceased matriarch. <i>Applied Animal Behaviour Science</i> , 2006 , 100, 87-102	2.2	152

161	Novel assembly properties of recombinant spider dragline silk proteins. <i>Current Biology</i> , 2004 , 14, 2070-4	6.3	151
160	pH induced changes in the rheology of silk fibroin solution from the middle division of <i>Bombyx mori</i> silkworm. <i>Biomacromolecules</i> , 2004 , 5, 768-72	6.9	150
159	The Role of Behavior in the Evolution of Spiders, Silks, and Webs. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2007 , 38, 819-846	13.5	127
158	Spider silk protein refolding is controlled by changing pH. <i>Biomacromolecules</i> , 2004 , 5, 704-10	6.9	127
157	Analysis of structure/property relationships in silkworm (<i>Bombyx mori</i>) and spider dragline (<i>Nephila edulis</i>) silks using Raman spectroscopy. <i>Biomacromolecules</i> , 2003 , 4, 387-94	6.9	126
156	The effect of solvents on the contraction and mechanical properties of spider silk. <i>Polymer</i> , 1999 , 40, 1799-1806	3.9	126
155	Spider silk proteins--mechanical property and gene sequence. <i>Zoological Science</i> , 2005 , 22, 273-81	0.8	124
154	Silks as ancient models for modern polymers. <i>Polymer</i> , 2009 , 50, 5623-5632	3.9	121
153	Structural engineering of an orb-spider's web. <i>Nature</i> , 1995 , 373, 146-148	50.4	119
152	Silk Fibroin-Regulated Crystallization of Calcium Carbonate. <i>Advanced Functional Materials</i> , 2008 , 18, 2172-2179	15.6	112
151	Rheological characterization of <i>nephila</i> spidroin solution. <i>Biomacromolecules</i> , 2002 , 3, 644-8	6.9	109
150	Elephants avoid costly mountaineering. <i>Current Biology</i> , 2006 , 16, R527-9	6.3	108
149	Shear-induced self-assembly of native silk proteins into fibrils studied by atomic force microscopy. <i>Biomacromolecules</i> , 2012 , 13, 676-82	6.9	105
148	Male Body Size and Fitness in the Web-building Spider <i>Nephila clavipes</i> . <i>Zeitschrift für Tierpsychologie</i> , 1980 , 53, 61-78		103
147	Can silk become an effective reinforcing fibre? A property comparison with flax and glass reinforced composites. <i>Composites Science and Technology</i> , 2014 , 101, 173-183	8.6	102
146	Understanding the Mechanical Properties of <i>Antheraea Pernyi</i> Silk From Primary Structure to Condensed Structure of the Protein. <i>Advanced Functional Materials</i> , 2011 , 21, 729-737	15.6	94
145	Thread biomechanics in the two orb-weaving spiders <i>Araneus diadematus</i> (Araneae, Araneidae) and <i>Uloborus walckenaerius</i> (Araneae, Uloboridae). <i>The Journal of Experimental Zoology</i> , 1995 , 271, 1-17		94
144	Silk cocoon (<i>Bombyx mori</i>): multi-layer structure and mechanical properties. <i>Acta Biomaterialia</i> , 2012 , 8, 2620-7	10.8	93

143	Structure and Behavior of Regenerated Spider Silk. <i>Macromolecules</i> , 2003 , 36, 1157-1161	5.5	92
142	Design variability in web geometry of an orb-weaving spider. <i>Physiology and Behavior</i> , 1997 , 62, 735-43	3.5	90
141	Structure and physical properties of silkworm cocoons. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 2299-308	4.1	88
140	Fabrication of Magnetic Spider Silk and Other Silk-Fiber Composites Using Inorganic Nanoparticles. <i>Advanced Materials</i> , 1998 , 10, 801-805	24	88
139	X-ray diffraction on spider silk during controlled extrusion under a synchrotron radiation X-ray beam. <i>Biomacromolecules</i> , 2000 , 1, 622-6	6.9	87
138	Silk and synthetic polymers: reconciling 100 degrees of separation. <i>Advanced Materials</i> , 2012 , 24, 105-9, 104	24	86
137	In Situ X-ray Diffraction during Forced Silking of Spider Silk. <i>Macromolecules</i> , 1999 , 32, 4464-4466	5.5	85
136	Biopolymers: shape memory in spider draglines. <i>Nature</i> , 2006 , 440, 621	50.4	80
135	The effect of solvents on spider silk studied by mechanical testing and single-fibre Raman spectroscopy. <i>International Journal of Biological Macromolecules</i> , 1999 , 24, 295-300	7.9	79
134	Morphology and structure of silkworm cocoons. <i>Materials Science and Engineering C</i> , 2012 , 32, 772-778	8.3	78
133	There are many more lessons still to be learned from spider silks. <i>Soft Matter</i> , 2011 , 7, 9595	3.6	77
132	Behaviour of the kleptoparasitic spider <i>Argyrodes elevatus</i> (Araneae, theridiidae). <i>Animal Behaviour</i> , 1979 , 27, 515-521	2.8	75
131	Thermally induced changes in dynamic mechanical properties of native silks. <i>Biomacromolecules</i> , 2013 , 14, 930-7	6.9	73
130	The conserved C-termini contribute to the properties of spider silk fibroins. <i>Biochemical and Biophysical Research Communications</i> , 2005 , 338, 897-902	3.4	73
129	Web spider's dilemma: a risky move or site dependent growth. <i>Oecologia</i> , 1985 , 68, 69-72	2.9	72
128	Eusociality and extraordinary sex ratios in the spider <i>Anelosimus eximius</i> (Araneae: Theridiidae). <i>Behavioral Ecology and Sociobiology</i> , 1986 , 18, 283-287	2.5	70
127	NMR characterization of native liquid spider dragline silk from <i>Nephila edulis</i> . <i>Biomacromolecules</i> , 2004 , 5, 834-9	6.9	68
126	Beehive fences as effective deterrents for crop-raiding elephants: field trials in northern Kenya. <i>African Journal of Ecology</i> , 2011 , 49, 431-439	0.8	66

125	Silk micrococoon for protein stabilisation and molecular encapsulation. <i>Nature Communications</i> , 2017 , 8, 15902	17.4	65
124	Identification and classification of silks using infrared spectroscopy. <i>Journal of Experimental Biology</i> , 2015 , 218, 3138-49	3	65
123	Secondary structures and conformational changes in flagelliform, cylindrical, major, and minor ampullate silk proteins. Temperature and concentration effects. <i>Biomacromolecules</i> , 2004 , 5, 2105-15	6.9	64
122	Design features of the orb web of the spider, <i>Araneus diadematus</i> . <i>Behavioral Ecology</i> , 1994 , 5, 280-287	2.3	63
121	The spinning processes for spider silk. <i>Soft Matter</i> , 2006 , 2, 448-451	3.6	62
120	Colony Foundation in a Social Spider. <i>Zeitschrift Für Tierpsychologie</i> , 1982 , 60, 313-324		62
119	Elasticity of spider silks. <i>Biomacromolecules</i> , 2008 , 9, 1782-6	6.9	61
118	Beehive fence deters crop-raiding elephants. <i>African Journal of Ecology</i> , 2009 , 47, 131-137	0.8	58
117	Spider Silk: Mother Nature's Bio-Superlens. <i>Nano Letters</i> , 2016 , 16, 5842-5	11.5	54
116	Structural conformation of spidroin in solution: a synchrotron radiation circular dichroism study. <i>Biomacromolecules</i> , 2004 , 5, 758-67	6.9	54
115	Analysis and Interpretation of Orb Spider Exploration and Web-building behavior. <i>Advances in the Study of Behavior</i> , 1992 , 147-199	3.4	54
114	Altered geometry of webs in spiders with regenerated legs. <i>Nature</i> , 1987 , 328, 247-248	50.4	53
113	In-drop capillary spooling of spider capture thread inspires hybrid fibers with mixed solid-liquid mechanical properties. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 6143-7	11.5	53
112	Two mechanisms for supercontraction in <i>Nephila</i> spider dragline silk. <i>Biomacromolecules</i> , 2011 , 12, 4030-5	6.9	52
111	The effect of prey type on the geometry of the capture web of <i>Araneus diadematus</i> . <i>Die Naturwissenschaften</i> , 1998 , 85, 391-394	2	52
110	Effects of prey quality and availability on the life history of a trap-building predator. <i>Oikos</i> , 2003 , 101, 631-638	4	52
109	Copper in the silk formation process of <i>Bombyx mori</i> silkworm. <i>FEBS Letters</i> , 2003 , 554, 337-41	3.8	52
108	Silk protein aggregation kinetics revealed by Rheo-IR. <i>Acta Biomaterialia</i> , 2014 , 10, 776-84	10.8	49

107	Analysing Spider Web-building Behaviour with Rule-based Simulations and Genetic Algorithms. <i>Journal of Theoretical Biology</i> , 1997 , 185, 321-331	2.3	48
106	African elephants run from the sound of disturbed bees. <i>Current Biology</i> , 2007 , 17, R832-3	6.3	47
105	Tensile and shear mechanical properties of rotator cuff repair patches. <i>Journal of Shoulder and Elbow Surgery</i> , 2012 , 21, 1168-76	4.3	45
104	Forced reeling of Bombyx mori silk: separating behavior and processing conditions. <i>Biomacromolecules</i> , 2013 , 14, 3653-9	6.9	45
103	Structural disorder in silk proteins reveals the emergence of elastomericity. <i>Biomacromolecules</i> , 2008 , 9, 216-21	6.9	44
102	Small angle neutron scattering of native and reconstituted silk fibroin. <i>Soft Matter</i> , 2010 , 6, 4389	3.6	41
101	Endocrine and behavioral changes in male African elephants: linking hormone changes to sexual state and reproductive tactics. <i>Hormones and Behavior</i> , 2008 , 54, 539-48	3.7	41
100	Prey Capture and Feeding in the Social Spider Anelosimus eximius. <i>Zeitschrift für Tierpsychologie</i> , 1983 , 61, 334-340		41
99	African bees to control African elephants. <i>Die Naturwissenschaften</i> , 2002 , 89, 508-11	2	39
98	Unfreezing the behaviour of two orb spiders. <i>Physiology and Behavior</i> , 1995 , 58, 1167-73	3.5	39
97	Silk fibroin gelation via non-solvent induced phase separation. <i>Biomaterials Science</i> , 2016 , 4, 460-73	7.4	38
96	Opportunities for silk textiles in reinforced biocomposites: Studying through-thickness compaction behaviour. <i>Composites Part A: Applied Science and Manufacturing</i> , 2014 , 62, 1-10	8.4	37
95	Concentration state dependence of the rheological and structural properties of reconstituted silk. <i>Biomacromolecules</i> , 2009 , 10, 2724-8	6.9	37
94	Interesting green elastomeric composites: Silk textile reinforced natural rubber. <i>Polymer Testing</i> , 2016 , 55, 17-24	4.5	36
93	Life cycle assessment of Indian silk. <i>Journal of Cleaner Production</i> , 2014 , 81, 158-167	10.3	35
92	The speed of sound in silk: linking material performance to biological function. <i>Advanced Materials</i> , 2014 , 26, 5179-83	24	35
91	Silks cope with stress by tuning their mechanical properties under load. <i>Polymer</i> , 2012 , 53, 2717-2726	3.9	35
90	Comparing the microstructure and mechanical properties of Bombyx mori and Antheraea pernyi cocoon composites. <i>Acta Biomaterialia</i> , 2017 , 47, 60-70	10.8	34

89	Water mobility, denaturation and the glass transition in proteins. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2012 , 1824, 785-91	4	34
88	Beta-silks: enhancing and controlling aggregation. <i>Advances in Protein Chemistry</i> , 2006 , 73, 17-53		34
87	Exploring the Use of Native Spider Silk as an Optical Fiber for Chemical Sensing. <i>Journal of Lightwave Technology</i> , 2018 , 36, 1138-1144	4	33
86	Glass transitions in native silk fibres studied by dynamic mechanical thermal analysis. <i>Soft Matter</i> , 2016 , 12, 5926-36	3.6	33
85	The impact behaviour of silk cocoons. <i>Journal of Experimental Biology</i> , 2013 , 216, 2648-57	3	33
84	Linking naturally and unnaturally spun silks through the forced reeling of <i>Bombyx mori</i> . <i>Acta Biomaterialia</i> , 2015 , 11, 247-55	10.8	32
83	Dry-Spun Silk Produces Native-Like Fibroin Solutions. <i>Biomacromolecules</i> , 2016 , 17, 3198-3204	6.9	32
82	Demineralization enables reeling of wild silkworm cocoons. <i>Biomacromolecules</i> , 2011 , 12, 2257-66	6.9	32
81	Nutrient balance affects foraging behaviour of a trap-building predator. <i>Biology Letters</i> , 2009 , 5, 735-8	3.6	32
80	Further investigation on potassium-induced conformation transition of <i>Nephila</i> spider silk film with two-dimensional infrared correlation spectroscopy. <i>Biomacromolecules</i> , 2005 , 6, 302-8	6.9	32
79	African elephant alarm calls distinguish between threats from humans and bees. <i>PLoS ONE</i> , 2014 , 9, e89403	3.7	32
78	Silk Reconstitution Disrupts Fibroin Self-Assembly. <i>Biomacromolecules</i> , 2015 , 16, 2796-804	6.9	30
77	Bee threat elicits alarm call in African elephants. <i>PLoS ONE</i> , 2010 , 5, e10346	3.7	30
76	Differential Scanning Fluorimetry provides high throughput data on silk protein transitions. <i>Scientific Reports</i> , 2014 , 4, 5625	4.9	29
75	Behavior of silk protein at the air-water interface. <i>Soft Matter</i> , 2012 , 8, 9705	3.6	29
74	Chitin in the silk gland ducts of the spider <i>Nephila edulis</i> and the silkworm <i>Bombyx mori</i> . <i>PLoS ONE</i> , 2013 , 8, e73225	3.7	29
73	Extreme body size variability in the golden silk spider (<i>Nephila edulis</i>) does not extend to genitalia. <i>Journal of Zoology</i> , 2000 , 251, 7-14	2	28
72	Spider webs are efficient collectors of agrochemical spray. <i>Pest Management Science</i> , 1992 , 36, 47-51		28

71	Biophotonics of Native Silk Fibrils. <i>Macromolecular Bioscience</i> , 2018 , 18, e1700295	5.5	26
70	A poisonous surprise under the coat of the African crested rat. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012 , 279, 675-80	4.4	26
69	Spider silk: thousands of nano-filaments and dollops of sticky glue. <i>Current Biology</i> , 2006 , 16, R925-7	6.3	26
68	Comparison of the spinning of selachian egg case ply sheets and orb web spider dragline filaments. <i>Biomacromolecules</i> , 2001 , 2, 323-34	6.9	26
67	The impact of elephants, <i>Loxodonta africana</i> , on woody vegetation through selective debarking in Samburu and Buffalo Springs National Reserves, Kenya. <i>African Journal of Ecology</i> , 2010 , 48, 87-95	0.8	25
66	Spiders' webs. <i>Current Biology</i> , 2005 , 15, R364-5	6.3	25
65	Rheo-attenuated total reflectance infrared spectroscopy: a new tool to study biopolymers. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 3979-84	3.6	23
64	The effects of neurotoxins on web-geometry and web-building behaviour in <i>Araneus diadematus</i> Cl. <i>Physiology and Behavior</i> , 2004 , 82, 519-29	3.5	23
63	Silk cocoons as natural macro-balloon fillers in novel polyurethane-based syntactic foams. <i>Polymer</i> , 2015 , 56, 93-101	3.9	22
62	Untangling the spider's web. <i>Trends in Ecology and Evolution</i> , 1988 , 3, 331-5	10.9	22
61	A novel marine silk. <i>Die Naturwissenschaften</i> , 2012 , 99, 3-10	2	21
60	Deformation micromechanics of spider silk. <i>Journal of Materials Science</i> , 2008 , 43, 3728-3732	4.3	21
59	A virtual robot to model the use of regenerated legs in a web-building spider. <i>Animal Behaviour</i> , 1999 , 57, 223-232	2.8	21
58	Graph theory illustrates spatial and temporal features that structure elephant rest locations and reflect risk perception. <i>Ecography</i> , 2017 , 40, 598-605	6.5	20
57	Observation of interfacial damage in a silk-epoxy composite, using a simple mechanoresponsive fluorescent probe. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1601018	4.6	20
56	Water mediated proton hopping empowers proteins. <i>Soft Matter</i> , 2013 , 9, 643-646	3.6	20
55	Gravity as an orientation guide during web-construction in the orb spider <i>Araneus diadematus</i> (Araneae, Araneidae). <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1986 , 159, 275-280	2.3	20
54	Consequences of electrical conductivity in an orb spider's capture web. <i>Die Naturwissenschaften</i> , 2013 , 100, 1163-9	2	19

53	Spiders spinning electrically charged nano-fibres. <i>Biology Letters</i> , 2015 , 11, 20140813	3.6	19
52	Breaking the 200 nm limit for routine flow linear dichroism measurements using UV synchrotron radiation. <i>Biophysical Journal</i> , 2008 , 95, 5974-7	2.9	19
51	Conformational polymorphism, stability and aggregation in spider dragline silks proteins. <i>International Journal of Biological Macromolecules</i> , 2005 , 36, 215-24	7.9	19
50	A kinetic model for thermal degradation in polymers with specific application to proteins. <i>Polymer</i> , 2009 , 50, 1814-1818	3.9	18
49	Fragrant genes help Damenwahl. <i>Trends in Ecology and Evolution</i> , 1995 , 10, 307-8	10.9	18
48	The mechanical properties of the non-sticky spiral in Nephila orb webs (Araneae, Nephilidae). <i>Journal of Experimental Biology</i> , 2012 , 215, 3362-9	3	17
47	Spinning a Marine Silk for the Purpose of Tube-Building. <i>Journal of Crustacean Biology</i> , 2012 , 32, 191-202	0.8	17
46	Distinct structural and optical regimes in natural silk spinning. <i>Biopolymers</i> , 2012 , 97, 368-73	2.2	16
45	Brown recluse spider's nanometer scale ribbons of stiff extensible silk. <i>Advanced Materials</i> , 2013 , 25, 7028-32	24	16
44	Influence of CO ₂ on the micro-structural properties of spider dragline silk: X-ray microdiffraction results. <i>Die Naturwissenschaften</i> , 2004 , 91, 30-3	2	16
43	Movement reveals reproductive tactics in male elephants. <i>Journal of Animal Ecology</i> , 2020 , 89, 57-67	4.7	16
42	Study on the microstructure of African wild silk cocoon shells and fibers. <i>International Journal of Biological Macromolecules</i> , 2012 , 50, 63-8	7.9	15
41	Wind speed affects prey-catching behaviour in an orb web spider. <i>Die Naturwissenschaften</i> , 2011 , 98, 1063-7	2	15
40	Spiral orientation of <i>Araneus diadematus</i> orb webs built during vertical rotation. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1988 , 162, 413-419	2.3	15
39	Modern analysis of an ancient integrated farming arrangement: life cycle assessment of a mulberry dyke and pond system. <i>International Journal of Life Cycle Assessment</i> , 2015 , 20, 1387-1398	4.6	14
38	The biocomposite tube of a chaetopterid marine worm constructed with highly-controlled orientation of nanofilaments. <i>Materials Science and Engineering C</i> , 2015 , 48, 408-15	8.3	14
37	Investigating the rheological properties of native plant latex. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20130847	4.1	13
36	Unpicking the signal thread of the sector web spider <i>Zygiella x-notata</i> . <i>Journal of the Royal Society Interface</i> , 2015 , 12, 20150633	4.1	13

35	Human footprint and protected areas shape elephant range across Africa. <i>Current Biology</i> , 2021 , 31, 2437-2445	3.4	14
34	Sex-ratio adjustment in solitary and social spiders. <i>Trends in Ecology and Evolution</i> , 1992 , 7, 326-7	10.9	12
33	Ivory as an Important Model Bio-composite. <i>Curator</i> , 2018 , 61, 95-110	0.4	11
32	Torn human rotator cuff tendons have reduced collagen thermal properties on differential scanning calorimetry. <i>Journal of Orthopaedic Research</i> , 2011 , 29, 1938-43	3.8	11
31	Cryogenic toughness of natural silk and a proposed structure-function relationship. <i>Materials Chemistry Frontiers</i> , 2019 , 3, 2507-2513	7.8	11
30	Coiling of an elastic beam inside a disk: A model for spider-capture silk. <i>International Journal of Non-Linear Mechanics</i> , 2015 , 75, 59-66	2.8	10
29	Estimating elephant densities from wells and droppings in dried out riverbeds. <i>African Journal of Ecology</i> , 2005 , 43, 312-319	0.8	9
28	Artificial spinning of natural silk threads. <i>Scientific Reports</i> , 2019 , 9, 15428	4.9	8
27	Mechanical and thermal degradation properties of silk from African wild silkmoths. <i>Journal of Applied Polymer Science</i> , 2013 , 127, 289-297	2.9	8
26	Genital morphology of <i>Nephila edulis</i> : implications for sperm competition in spiders. <i>Canadian Journal of Zoology</i> , 1998 , 76, 39-47	1.5	8
25	Rainfall pattern and nutrient content influences on African elephants' debarking behaviour in Samburu and Buffalo Springs National Reserves, Kenya. <i>African Journal of Ecology</i> , 2012 , 50, 152-159	0.8	7
24	Structure and properties of silk from the African wild silkmoth <i>Gonometa postica</i> reared indoors. <i>Journal of Insect Science</i> , 2014 , 14, 36	2	7
23	The Selfish Crouton. <i>Behaviour</i> , 1995 , 132, 49-55	1.4	7
22	Housing tubes from the marine worm <i>Chaetopterus</i> sp.: biomaterials with exceptionally broad thermomechanical properties. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140525	4.1	6
21	Drop-on-coilable-fibre systems exhibit negative stiffness events and transitions in coiling morphology. <i>Soft Matter</i> , 2017 , 13, 5509-5517	3.6	6
20	Transient Expression of a Major Ampullate Spidroin 1 Gene Fragment from sp. in Mammalian Cells. <i>Cancer Genomics and Proteomics</i> , 2006 , 3, 83-87	3.3	6
19	Strain-dependent fractional molecular diffusion in humid spider silk fibres. <i>Journal of the Royal Society Interface</i> , 2016 , 13,	4.1	5
18	The complexity of silk under the spotlight of synthetic biology. <i>Biochemical Society Transactions</i> , 2016 , 44, 1151-7	5.1	5

17	Differential Scanning Calorimetry of Native Silk Feedstock. <i>Macromolecular Bioscience</i> , 2019 , 19, e1800238	3.8	5
16	Hard X-ray nano-holotomography with a Fresnel zone plate. <i>Optics Express</i> , 2020 , 28, 37514-37525	3.3	4
15	Spider webs inspiring soft robotics. <i>Journal of the Royal Society Interface</i> , 2020 , 17, 20200569	4.1	3
14	Functional flexibility in a spider's orb web. <i>Journal of Experimental Biology</i> , 2020 , 223,	3	3
13	Polymer Fibers: Silk and Synthetic Polymers: Reconciling 100 Degrees of Separation (Adv. Mater. 1/2012). <i>Advanced Materials</i> , 2012 , 24, 104-104	24	2
12	Extreme body size variability in the golden silk spider (<i>Nephila edulis</i>) does not extend to genitalia 2000 , 251, 7		2
11	Structural Diversity of Native Major Ampullate, Minor Ampullate, Cylindriform, and Flagelliform Silk Proteins in Solution. <i>Biomacromolecules</i> , 2020 , 21, 3387-3393	6.9	1
10	Analysing the structure and glass transition behaviour of silks for archaeology and conservation. <i>Journal of the Royal Society Interface</i> , 2018 , 15,	4.1	1
9	Weaving our way towards a new generation of fibre-optic chemical sensors based on spider silk 2016 ,		1
8	Dynamic environments do not appear to constrain spider web building behaviour. <i>Die Naturwissenschaften</i> , 2021 , 108, 20	2	1
7	Spinning conditions affect structure and properties of <i>Nephila</i> spider silk. <i>MRS Bulletin</i> , 2021 , 46, 915	3.2	0
6	Seismic localization of elephant rumbles as a monitoring approach. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20210264	4.1	0
5	Spider silk morphology for responsive materials. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1498, 197-202		
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