# Fritz Vollrath

List of Publications by Year
in descending order



| 183 | 14,037 | 17429 63 | 22808 112 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 189 | 189 | 189 | 8498 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Liquid crystalline spinning of spider silk. Nature, 2001, 410, 541-548. | 13.7 | 1,444 |
| 2 | Surprising strength of silkworm silk. Nature, 2002, 418, 741-741. | 13.7 | 855 |
| 3 | Relationships between supercontraction and mechanical properties of spider silk. Nature Materials, 2005, 4, 901-905. | 13.3 | 270 |
| 4 | Silk as a Biomimetic Ideal for Structural Polymers. Advanced Materials, 2009, 21, 487-492. | 11.1 | 260 |
| 5 | Sexual dimorphism and distorted sex ratios in spiders. Nature, 1992, 360, 156-159. | 13.7 | 255 |
| 6 | Modulation of the mechanical properties of spider silk by coating with water. Nature, 1989, 340, 305-307. | 13.7 | 254 |
| 7 | Spider silk as archetypal protein elastomer. Soft Matter, 2006, 2, 377. | 1.2 | 243 |
| 8 | Variability in the mechanical properties of spider silks on three levels: interspecific, intraspecific and intraindividual. International Journal of Biological Macromolecules, 1999, 24, 301-306. | 3.6 | 238 |
| 9 | Strength and structure of spidersâ€™ silks. Reviews in Molecular Biotechnology, 2000, 74, 67-83. | 2.9 | 219 |
| 10 | Changes in element composition along the spinning duct in a Nephila spider. Die Naturwissenschaften, 2001, 88, 179-182. | 0.6 | 217 |
| 11 | Compounds in the droplets of the orb spider's viscid spiral. Nature, 1990, 345, 526-528. | 13.7 | 206 |
| 12 | Proline and Processing of Spider Silks. Biomacromolecules, 2008, 9, 116-121. | 2.6 | 198 |
| 13 | Stable isotopes in elephant hair document migration patterns and diet changes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 371-373. | 3.3 | 193 |
| 14 | Biology of spider silk. International Journal of Biological Macromolecules, 1999, 24, 81-88. | 3.6 | 191 |
| 15 | Amyloidogenic nature of spider silk. FEBS Journal, 2002, 269, 4159-4163. | 0.2 | 184 |
| 16 | Behavioural reactions of elephants towards a dying and deceased matriarch. Applied Animal Behaviour Science, 2006, 100, 87-102. | 0.8 | 183 |
| 17 | pH Induced Changes in the Rheology of Silk Fibroin Solution from the Middle Division ofBombyx moriSilkworm. Biomacromolecules, 2004, 5, 768-772. | 2.6 | 176 |
| 18 | Novel Assembly Properties of Recombinant Spider Dragline Silk Proteins. Current Biology, 2004, 14, 2070-2074. | 1.8 | 175 |

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| 19 | Dwarf males. Trends in Ecology and Evolution, 1998, 13, 159-163. | 4.2 | 174 |
| 20 | Conformation transition kinetics of Bombyx mori silk protein. Proteins: Structure, Function and Bioinformatics, 2007, 68, 223-231. | 1.5 | 174 |
| 21 | The Role of Behavior in the Evolution of Spiders, Silks, and Webs. Annual Review of Ecology, Evolution, and Systematics, 2007, 38, 819-846. | 3.8 | 159 |
| 22 | Silks as ancient models for modern polymers. Polymer, 2009, 50, 5623-5632. | 1.8 | 157 |
| 23 | Elephants avoid costly mountaineering. Current Biology, 2006, 16, R527-R529. | 1.8 | 153 |
| 24 | Analysis of Structure/Property Relationships in Silkworm (Bombyx mori) and Spider Dragline (Nephila) Tj ETQq0 0 0 rgBT /Overlock 10 Tf | 2.6 | 148 |
| 25 | Spider Silk Proteins â€“ Mechanical Property and Gene Sequence. Zoological Science, 2005, 22, 273-281. | 0.3 | 147 |
| 26 | Can silk become an effective reinforcing fibre? A property comparison with flax and glass reinforced composites. Composites Science and Technology, 2014, 101, 173-183. | 3.8 | 144 |
| 27 | The effect of solvents on the contraction and mechanical properties of spider silk. Polymer, 1999, 40, 1799-1806. | 1.8 | 143 |
| 28 | Spider Silk Protein Refolding Is Controlled by Changing pH. Biomacromolecules, 2004, 5, 704-710. | 2.6 | 142 |
| 29 | Structural engineering of an orb-spider's web. Nature, 1995, 373, 146-148. | 13.7 | 134 |
| 30 | Silk Fibroinâ€Regulated Crystallization of Calcium Carbonate. Advanced Functional Materials, 2008, 18, 2172-2179. | 7.8 | 129 |
| 31 | Structure and physical properties of silkworm cocoons. Journal of the Royal Society Interface, 2012, 9, 2299-2308. | 1.5 | 128 |
| 32 | Male Body Size and Fitness in the Web-building SpiderNephila clavipes. Zeitschrift FÃ¼r Tierpsychologie, 1980, 53, 61-78. | 0.2 | 126 |
| 33 | Silk cocoon (Bombyx mori): Multi-layer structure and mechanical properties. Acta Biomaterialia, 2012, 8, 2620-2627. | 4.1 | 123 |
| 34 | Shear-Induced Self-Assembly of Native Silk Proteins into Fibrils Studied by Atomic Force Microscopy. Biomacromolecules, 2012, 13, 676-682. | 2.6 | 121 |
| 35 | Rheological Characterization ofNephilaSpidroin Solution. Biomacromolecules, 2002, 3, 644-648. | 2.6 | 119 |
| 36 | Fabrication of Magnetic Spider Silk and Other Silk-Fiber Composites Using Inorganic Nanoparticles. Advanced Materials, 1998, 10, 801-805. | 11.1 | 111 |

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| 37 | Understanding the Mechanical Properties of Antheraea Pernyi Silkâ€"From Primary Structure to Condensed Structure of the Protein. Advanced Functional Materials, 2011, 21, 729-737. | 7.8 | 111 |
| 38 | Thread biomechanics in the two orb-weaving spidersAraneus diadematus (Araneae, Araneidae) andUloborus walckenaerius (Araneae, Uloboridae). The Journal of Experimental Zoology, 1995, 271, 1-17. | 1.4 | 110 |
| 39 | Shape memory in spider draglines. Nature, 2006, 440, 621-621. | 13.7 | 100 |
| 40 | Morphology and structure of silkworm cocoons. Materials Science and Engineering C, 2012, 32, 772-778. | 3.8 | 99 |
| 41 | Silk and Synthetic Polymers: Reconciling 100 Degrees of Separation. Advanced Materials, 2012, 24, 105-109. | 11.1 | 99 |
| 42 | Design Variability in Web Geometry of an Orb-Weaving Spider. Physiology and Behavior, 1997, 62, 735-743. | 1.0 | 98 |
| 43 | X-ray Diffraction on Spider Silk during Controlled Extrusion under a Synchrotron Radiation X-ray Beam. Biomacromolecules, 2000, 1, 622-626. | 2.6 | 97 |
| 44 | Structure and Behavior of Regenerated Spider Silk. Macromolecules, 2003, 36, 1157-1161. | 2.2 | 97 |
| 45 | Identification and classification of silks using infrared spectroscopy. Journal of Experimental Biology, 2015, 218, 3138-49. | 0.8 | 97 |
| 46 | Beehive fences as effective deterrents for crop-raiding elephants: field trials in northern Kenya. African Journal of Ecology, 2011, 49, 431-439. | 0.4 | 96 |
| 47 | Silk micrococoons for protein stabilisation and molecular encapsulation. Nature Communications, 2017, 8, 15902. | 5.8 | 96 |
| 48 | Beehive fence deters cropâ€raiding elephants. African Journal of Ecology, 2009, 47, 131-137. | 0.4 | 91 |
| 49 | In Situ X-ray Diffraction during Forced Silking of Spider Silk. Macromolecules, 1999, 32, 4464-4466. | 2.2 | 90 |
| 50 | Behaviour of the kleptoparasitic spider Argyrodes elevatus (Araneae, theridiidae). Animal Behaviour, 1979, 27, 515-521. | 0.8 | 88 |
| 51 | Web spider's dilemma: a risky move or site dependent growth. Oecologia, 1985, 68, 69-72. | 0.9 | 86 |
| 52 | There are many more lessons still to be learned from spider silks. Soft Matter, 2011, 7, 9595. | 1.2 | 86 |
| 53 | Thermally Induced Changes in Dynamic Mechanical Properties of Native Silks. Biomacromolecules, 2013, 14, 930-937. | 2.6 | 83 |
| 54 | The effect of solvents on spider silk studied by mechanical testing and single-fibre Raman spectroscopy. International Journal of Biological Macromolecules, 1999, 24, 295-300. | 3.6 | 82 |

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| 55 | The conserved C-termini contribute to the properties of spider silk fibroins. Biochemical and Biophysical Research Communications, 2005, 338, 897-902. | 1.0 | 81 |
| 56 | Spider Silk: Mother Natureâ€™s Bio-Superlens. Nano Letters, 2016, 16, 5842-5845. | 4.5 | 80 |
| 57 | Eusociality and extraordinary sex ratios in the spider Anelosimus eximius (Araneae: Theridiidae). Behavioral Ecology and Sociobiology, 1986, 18, 283-287. | 0.6 | 78 |
| 58 | Colony Foundation in a Social Spider. Zeitschrift FÃ¼r Tierpsychologie, 1982, 60, 313-324. | 0.2 | 76 |
| 59 | NMR Characterization of Native Liquid Spider Dragline Silk fromNephila edulis. Biomacromolecules, 2004, 5, 834-839. | 2.6 | 74 |
| 60 | In-drop capillary spooling of spider capture thread inspires hybrid fibers with mixed solidâ€“liquid mechanical properties. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6143-6147. | 3.3 | 73 |
| 61 | Design features of the orb web of the spider, Araneus diadematus. Behavioral Ecology, 1994, 5, 280-287. | 1.0 | 68 |
| 62 | African bees to control African elephants. Die Naturwissenschaften, 2002, 89, 508-511. | 0.6 | 68 |
| 63 | The spinning processes for spider silk. Soft Matter, 2006, 2, 448. | 1.2 | 68 |
| 64 | African elephants run from the sound of disturbed bees. Current Biology, 2007, 17, R832-R833. | 1.8 | 68 |
| 65 | Elasticity of Spider Silks. Biomacromolecules, 2008, 9, 1782-1786. | 2.6 | 65 |
| 66 | Secondary Structures and Conformational Changes in Flagelliform, Cylindrical, Major, and Minor Ampullate Silk Proteins. Temperature and Concentration Effects. Biomacromolecules, 2004, 5, 2105-2115. | 2.6 | 64 |
| 67 | Effects of prey quality and availability on the life history of a trap-building predator. Oikos, 2003, 101, 631-638. | 1.2 | 62 |
| 68 | Analysis and Interpretation of Orb Spider Exploration and Web-building behavior. Advances in the Study of Behavior, 1992, , 147-199. | 1.0 | 61 |
| 69 | Two Mechanisms for Supercontraction in Nephila Spider Dragline Silk. Biomacromolecules, 2011, 12, 4030-4035. | 2.6 | 61 |
| 70 | Tensile and shear mechanical properties of rotator cuff repair patches. Journal of Shoulder and Elbow Surgery, 2012, 21, 1168-1176. | 1.2 | 60 |
| 71 | The effect of prey type on the geometry of the capture web of Araneus diadematus. Die Naturwissenschaften, 1998, 85, 391-394. | 0.6 | 59 |
| 72 | Altered geometry of webs in spiders with regenerated legs. Nature, 1987, 328, 247-248. | 13.7 | 57 |

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| 73 | Copper in the silk formation process ofBombyx morisilkworm. FEBS Letters, 2003, 554, 337-341. | 1.3 | 57 |
| 74 | Structural Conformation of Spidroin in Solution:Â A Synchrotron Radiation Circular Dichroism Study. Biomacromolecules, 2004, 5, 758-767. | 2.6 | 57 |
| 75 | Silk protein aggregation kinetics revealed by Rheo-IR. Acta Biomaterialia, 2014, 10, 776-784. | 4.1 | 56 |
| 76 | Forced Reeling of Bombyx mori Silk: Separating Behavior and Processing Conditions. Biomacromolecules, 2013, 14, 3653-3659. | 2.6 | 55 |
| 77 | Silk fibroin gelation via non-solvent induced phase separation. Biomaterials Science, 2016, 4, 460-473. | 2.6 | 55 |
| 78 | Comparing the microstructure and mechanical properties of Bombyx mori and Antheraea pernyi cocoon composites. Acta Biomaterialia, 2017, 47, 60-70. | 4.1 | 55 |
| 79 | Analysing Spider Web-building Behaviour with Rule-based Simulations and Genetic Algorithms. Journal of Theoretical Biology, 1997, 185, 321-331. | 0.8 | 52 |
| 80 | Exploring the Use of Native Spider Silk as an Optical Fiber for Chemical Sensing. Journal of Lightwave Technology, 2018, 36, 1138-1144. | 2.7 | 52 |
| 81 | Small angle neutron scattering of native and reconstituted silk fibroin. Soft Matter, 2010, 6, 4389. | 1.2 | 51 |
| 82 | Prey Capture and Feeding in the Social Spider Anelosimus eximius. Zeitschrift FÃ¼r Tierpsychologie, 1983, 61, 334-340. | 0.2 | 50 |
| 83 | Structural Disorder in Silk Proteins Reveals the Emergence of Elastomericity. Biomacromolecules, 2008, 9, 216-221. | 2.6 | 48 |
| 84 | Human footprint and protected areas shape elephant range across Africa. Current Biology, 2021, 31, 2437-2445.e4. | 1.8 | 48 |
| 85 | African Elephant Alarm Calls Distinguish between Threats from Humans and Bees. PLoS ONE, 2014, 9, e89403. | 1.1 | 48 |
| 86 | Endocrine and behavioral changes in male African elephants: Linking hormone changes to sexual state and reproductive tactics. Hormones and Behavior, 2008, 54, 539-548. | 1.0 | 47 |
| 87 | Dry-Spun Silk Produces Native-Like Fibroin Solutions. Biomacromolecules, 2016, 17, 3198-3204. | 2.6 | 46 |
| 88 | Life cycle assessment of Indian silk. Journal of Cleaner Production, 2014, 81, 158-167. | 4.6 | 45 |
| 89 | Silks cope with stress by tuning their mechanical properties under load. Polymer, 2012, 53, 2717-2726. | 1.8 | 44 |
| 90 | The impact behaviour of silk cocoons. Journal of Experimental Biology, 2013, 216, 2648-2657. | 0.8 | 44 |

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| 91 | Interesting green elastomeric composites: Silk textile reinforced natural rubber. Polymer Testing, 2016, 55, 17-24. | 2.3 | 44 |
| 92 | Glass transitions in native silk fibres studied by dynamic mechanical thermal analysis. Soft Matter, 2016, 12, 5926-5936. | 1.2 | 44 |
| 93 | Unfreezing the behaviour of two orb spiders. Physiology and Behavior, 1995, 58, 1167-1173. | 1.0 | 43 |
| 94 | Opportunities for silk textiles in reinforced biocomposites: Studying through-thickness compaction behaviour. Composites Part A: Applied Science and Manufacturing, 2014, 62, 1-10. | 3.8 | 43 |
| 95 | Demineralization Enables Reeling of Wild Silkmoth Cocoons. Biomacromolecules, 2011, 12, 2257-2266. | 2.6 | 42 |
| 96 | Concentration State Dependence of the Rheological and Structural Properties of Reconstituted Silk. Biomacromolecules, 2009, 10, 2724-2728. | 2.6 | 41 |
| 97 | The Speed of Sound in Silk: Linking Material Performance to Biological Function. Advanced Materials, 2014, 26, 5179-5183. | 11.1 | 41 |
| 98 | Linking naturally and unnaturally spun silks through the forced reeling of Bombyx mori. Acta Biomaterialia, 2015, 11, 247-255. | 4.1 | 41 |
| 99 | Bee Threat Elicits Alarm Call in African Elephants. PLoS ONE, 2010, 5, e10346. | 1.1 | 41 |
| 100 | Î²â€Silks: Enhancing and Controlling Aggregation. Advances in Protein Chemistry, 2006, 73, 17-53. | 4.4 | 40 |
| 101 | Differential Scanning Fluorimetry provides high throughput data on silk protein transitions.. Scientific Reports, 2014, 4, 5625. | 1.6 | 40 |
| 102 | Nutrient balance affects foraging behaviour of a trap-building predator. Biology Letters, 2009, 5, 735-738. | 1.0 | 39 |
| 103 | A poisonous surprise under the coat of the African crested rat. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 675-680. | 1.2 | 38 |
| 104 | Water mobility, denaturation and the glass transition in proteins. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 785-791. | 1.1 | 37 |
| 105 | Silk Reconstitution Disrupts Fibroin Self-Assembly. Biomacromolecules, 2015, 16, 2796-2804. | 2.6 | 37 |
| 106 | Further Investigation on Potassium-Induced Conformation Transition ofNephilaSpidroin Film with Two-Dimensional Infrared Correlation Spectroscopy. Biomacromolecules, 2005, 6, 302-308. | 2.6 | 36 |
| 107 | Spider Silk: Thousands of Nano-Filaments and Dollops of Sticky Glue. Current Biology, 2006, 16, R925-R927. | 1.8 | 36 |
| 108 | Spider webs are efficient collectors of agrochemical spray. Pest Management Science, 1992, 36, 47-51. | 0.6 | 35 |

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| 109 | Behavior of silk protein at the airâ€“water interface. Soft Matter, 2012, 8, 9705. | 1.2 | 35 |
| 110 | Chitin in the Silk Gland Ducts of the Spider Nephila edulis and the Silkworm Bombyx mori. PLoS ONE, 2013, 8, e73225. | 1.1 | 34 |
| 111 | Observation of Interfacial Damage in a Silkâ€Epoxy Composite, Using a Simple Mechanoresponsive Fluorescent Probe. Advanced Materials Interfaces, 2017, 4, 1601018. | 1.9 | 33 |
| 112 | The impact of elephants, Loxodonta africana, on woody vegetation through selective debarking in Samburu and Buffalo Springs National Reserves, Kenya. African Journal of Ecology, 2010, 48, 87-95. | 0.4 | 32 |
| 113 | Extreme body size variability in the golden silk spider (Nephila edulis) does not extend to genitalia. Journal of Zoology, 2000, 251, 7-14. | 0.8 | 31 |
| 114 | Biophotonics of Native Silk Fibrils. Macromolecular Bioscience, 2018, 18, e1700295. | 2.1 | 31 |
| 115 | The effects of neurotoxins on web-geometry and web-building behaviour in Araneus diadematus Cl.. Physiology and Behavior, 2004, 82, 519-529. | 1.0 | 30 |
| 116 | Graph theory illustrates spatial and temporal features that structure elephant rest locations and reflect risk perception. Ecography, 2017, 40, 598-605. | 2.1 | 29 |
| 117 | Comparison of the Spinning of Selachian Egg Case Ply Sheets and Orb Web Spider Dragline Filaments. Biomacromolecules, 2001, 2, 323-334. | 2.6 | 28 |
| 118 | Untangling the spider's web. Trends in Ecology and Evolution, 1988, 3, 331-335. | 4.2 | 27 |
| 119 | Spidersâ€™ webs. Current Biology, 2005, 15, R364-R365. | 1.8 | 27 |
| 120 | A novel marine silk. Die Naturwissenschaften, 2012, 99, 3-10. | 0.6 | 26 |
| 121 | Rheo-attenuated total reflectance infrared spectroscopy: a new tool to study biopolymers. Physical Chemistry Chemical Physics, 2011, 13, 3979. | 1.3 | 25 |
| 122 | Gravity as an orientation guide during web-construction in the orb spiderAraneus diadematus (Araneae, Araneidae). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1986, 159, 275-280. | 0.7 | 24 |
| 123 | Breaking the 200 nm Limit for Routine Flow Linear Dichroism Measurements Using UV Synchrotron Radiation. Biophysical Journal, 2008, 95, 5974-5977. | 0.2 | 24 |
| 124 | Silk cocoons as natural macro-balloon fillers in novel polyurethane-based syntactic foams. Polymer, 2015, 56, 93-101. | 1.8 | 24 |
| 125 | Deformation micromechanics of spider silk. Journal of Materials Science, 2008, 43, 3728-3732. | 1.7 | 23 |
| 126 | Spinning a Marine Silk for the Purpose of Tube-Building. Journal of Crustacean Biology, 2012, 32, 191-202. | 0.3 | 23 |

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| 127 | Water mediated proton hopping empowers proteins. Soft Matter, 2013, 9, 643-646. | 1.2 | 23 |
| 128 | Spiders spinning electrically charged nano-fibres. Biology Letters, 2015, 11, 20140813. | 1.0 | 23 |
| 129 | Movement reveals reproductive tactics in male elephants. Journal of Animal Ecology, 2020, 89, 57-67. | 1.3 | 23 |
| 130 | A virtual robot to model the use of regenerated legs in a web-building spider. Animal Behaviour, 1999, 57, 223-232. | 0.8 | 22 |
| 131 | Conformational polymorphism, stability and aggregation in spider dragline silks proteins. International Journal of Biological Macromolecules, 2005, 36, 215-224. | 3.6 | 22 |
| 132 | Consequences of electrical conductivity in an orb spider's capture web. Die Naturwissenschaften, 2013, 100, 1163-1169. | 0.6 | 22 |
| 133 | Modern analysis of an ancient integrated farming arrangement: life cycle assessment of a mulberry dyke and pond system. International Journal of Life Cycle Assessment, 2015, 20, 1387-1398. | 2.2 | 22 |
| 134 | Unpicking the signal thread of the sector web spiderZygiella x-notata. Journal of the Royal Society Interface, 2015, 12, 20150633. | 1.5 | 21 |
| 135 | Cryogenic toughness of natural silk and a proposed structureâ€“function relationship. Materials Chemistry Frontiers, 2019, 3, 2507-2513. | 3.2 | 21 |
| 136 | Influence of CO 2 on the micro-structural properties of spider dragline silk: X-ray microdiffraction results. Die Naturwissenschaften, 2004, 91, 30-33. | 0.6 | 20 |
| 137 | Wind speed affects prey-catching behaviour in an orb web spider. Die Naturwissenschaften, 2011, 98, 1063-1067. | 0.6 | 20 |
| 138 | The mechanical properties of the non-sticky spiral inNephilaorb webs (Araneae, Nephilidae). Journal of Experimental Biology, 2012, 215, 3362-9. | 0.8 | 20 |
| 139 | Brown Recluse Spider's Nanometer Scale Ribbons of Stiff Extensible Silk. Advanced Materials, 2013, 25, 7028-7032. | 11.1 | 20 |
| 140 | Fragrant genes help Damenwahl. Trends in Ecology and Evolution, 1995, 10, 307-308. | 4.2 | 19 |
| 141 | Investigating the rheological properties of native plant latex. Journal of the Royal Society Interface, 2014, 11, 20130847. | 1.5 | 19 |
| 142 | Spiral orientation ofAraneus diadematus orb webs built during vertical rotation. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1988, 162, 413-419. | 0.7 | 18 |
| 143 | A kinetic model for thermal degradation in polymers with specific application to proteins. Polymer, 2009, 50, 1814-1818. | 1.8 | 18 |
| 144 | Distinct structural and optical regimes in natural silk spinning. Biopolymers, 2012, 97, 368-373. | 1.2 | 18 |

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| 145 | Ivory as an Important Model Bioâ€composite. Curator, 2018, 61, 95-110. | 0.2 | 16 |
| 146 | Study on the microstructure of African wild silk cocoon shells and fibers. International Journal of Biological Macromolecules, 2012, 50, 63-68. | 3.6 | 15 |
| 147 | Artificial spinning of natural silk threads. Scientific Reports, 2019, 9, 15428. | 1.6 | 15 |
| 148 | Structure and properties of silk from the African wild silkmoth Gonometa postica reared indoors. Journal of Insect Science, 2014, 14, 36. | 0.6 | 14 |
| 149 | The biocomposite tube of a chaetopterid marine worm constructed with highly-controlled orientation of nanofilaments. Materials Science and Engineering C, 2015, 48, 408-415. | 3.8 | 14 |
| 150 | Mechanical and thermal degradation properties of silk from African wild silkmoths. Journal of Applied Polymer Science, 2013, 127, 289-297. | 1.3 | 13 |
| 151 | Hard X-ray nano-holotomography with a Fresnel zone plate. Optics Express, 2020, 28, 37514. | 1.7 | 13 |
| 152 | Sex-ratio adjustment in solitary and social spiders. Trends in Ecology and Evolution, 1992, 7, 326-327. | 4.2 | 12 |
| 153 | The Selfish Crouton. Behaviour, 1995, 132, 49-55. | 0.4 | 12 |
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| 155 | Coiling of an elastic beam inside a disk: A model for spider-capture silk. International Journal of Non-Linear Mechanics, 2015, 75, 59-66. | 1.4 | 12 |
| 156 | Differential Scanning Calorimetry of Native Silk Feedstock. Macromolecular Bioscience, 2019, 19, 1800228. | 2.1 | 11 |
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| 158 | Estimating elephant densities from wells and droppings in dried out riverbeds. African Journal of Ecology, 2005, 43, 312-319. | 0.4 | 9 |
| 159 | Rainfall pattern and nutrient content influences on African elephantsâ€™ debarking behaviour in Samburu and Buffalo Springs National Reserves, Kenya. African Journal of Ecology, 2012, 50, 152-159. | 0.4 | 9 |
| 160 | Genital morphology of Nephila edulis: implications for sperm competition in spiders. Canadian Journal of Zoology, 1998, 76, 39-47. | 0.4 | 9 |
| 161 | The Elephant Evolved p53 Isoforms that Escape MDM2-Mediated Repression and Cancer. Molecular Biology and Evolution, 2022, 39, . | 3.5 | 9 |
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| 164 | Housing tubes from the marine worm Chaetopterus sp.: biomaterials with exceptionally broad thermomechanical properties. Journal of the Royal Society Interface, 2014, 11, 20140525. | 1.5 | 7 |
| 165 | Drop-on-coilable-fibre systems exhibit negative stiffness events and transitions in coiling morphology. Soft Matter, 2017, 13, 5509-5517. | 1.2 | 7 |
| 166 | Analysing the structure and glass transition behaviour of silks for archaeology and conservation. Journal of the Royal Society Interface, 2018, 15, 20170883. | 1.5 | 7 |
| 167 | Transient Expression of a Major Ampullate Spidroin 1 Gene Fragment from sp. in Mammalian Cells. Cancer Genomics and Proteomics, 2006, 3, 83-87. | 1.0 | 7 |
| 168 | Strain-dependent fractional molecular diffusion in humid spider silk fibres. Journal of the Royal Society Interface, 2016, 13, 20160506. | 1.5 | 6 |
| 169 | Functional flexibility in a spider's Orb Web. Journal of Experimental Biology, 2020, 223, . | 0.8 | 6 |
| 170 | The complexity of silk under the spotlight of synthetic biology. Biochemical Society Transactions, 2016, 44, 1151-1157. | 1.6 | 5 |
| 171 | Structural Diversity of Native Major Ampullate, Minor Ampullate, Cylindriform, and Flagelliform Silk Proteins in Solution. Biomacromolecules, 2020, 21, 3387-3393. | 2.6 | 5 |
| 172 | The <scp>r</scp> package <scp>enerscape</scp>: A general energy landscape framework for terrestrial movement ecology. Methods in Ecology and Evolution, 2022, 13, 60-67. | 2.2 | 5 |
| 173 | Polymer Fibers: Silk and Synthetic Polymers: Reconciling 100 Degrees of Separation (Adv. Mater. 1/2012). Advanced Materials, 2012, 24, 104-104. | 11.1 | 2 |
| 174 | Dynamic environments do not appear to constrain spider web building behaviour. Die Naturwissenschaften, 2021, 108, 20. | 0.6 | 2 |
| 175 | Extreme body size variability in the golden silk spider (Nephila edulis) does not extend to genitalia. , 2000, 251, 7. | | 2 |
| 176 | Weaving our way towards a new generation of fibre-optic chemical sensors based on spider silk. , 2016, , . | | 1 |
| 177 | Silk as a Biomimetic Ideal for Structural Polymers. , 2009, 21, 487. | | 1 |
| 178 | Spider silk morphology for responsive materials. Materials Research Society Symposia Proceedings, 2013, 1498, 197-202. | 0.1 | 0 |
| 179 | Spider Silk: Brown Recluse Spider's Nanometer Scale Ribbons of Stiff Extensible Silk (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overloc | 11.1 | 0 |
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