Fritz Vollrath

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

61 178 103 11,710 h-index g-index citations papers 6.63 189 12,922 7.9 L-index avg, IF ext. citations ext. papers

| # | Paper | IF | Citations |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|
| 178 | Spinning conditions affect structure and properties of Nephila spider silk. MRS Bulletin, 2021, 46, 915 | 3.2 | O |
| 177 | Dynamic environments do not appear to constrain spider web building behaviour. <i>Die Naturwissenschaften</i> , 2021 , 108, 20 | 2 | 1 |
| 176 | Human footprint and protected areas shape elephant range across Africa. Current Biology, 2021, 31, 24 | 3 ७. ₹44 | 151 <u>9</u> 4 |
| 175 | Seismic localization of elephant rumbles as a monitoring approach. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20210264 | 4.1 | 0 |
| 174 | Anterior knee pain from the evolutionary perspective. <i>Knee</i> , 2021 , 31, 1-10 | 2.6 | |
| 173 | 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 |
| 172 | Hard X-ray nano-holotomography with a Fresnel zone plate. <i>Optics Express</i> , 2020 , 28, 37514-37525 | 3.3 | 4 |
| 171 | Spider webs inspiring soft robotics. <i>Journal of the Royal Society Interface</i> , 2020 , 17, 20200569 | 4.1 | 3 |
| 170 | Functional flexibility in a spider's orb web. <i>Journal of Experimental Biology</i> , 2020 , 223, | 3 | 3 |
| 169 | Movement reveals reproductive tactics in male elephants. <i>Journal of Animal Ecology</i> , 2020 , 89, 57-67 | 4.7 | 16 |
| 168 | Artificial spinning of natural silk threads. <i>Scientific Reports</i> , 2019 , 9, 15428 | 4.9 | 8 |
| 167 | Cryogenic toughness of natural silk and a proposed structurefunction relationship. <i>Materials Chemistry Frontiers</i> , 2019 , 3, 2507-2513 | 7.8 | 11 |
| 166 | Differential Scanning Calorimetry of Native Silk Feedstock. <i>Macromolecular Bioscience</i> , 2019 , 19, e1800 | 2385 | 5 |
| 165 | Ivory as an Important Model Bio-composite. <i>Curator</i> , 2018 , 61, 95-110 | 0.4 | 11 |
| 164 | Biophotonics of Native Silk Fibrils. <i>Macromolecular Bioscience</i> , 2018 , 18, e1700295 | 5.5 | 26 |
| 163 | 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 |
| 162 | Analysing the structure and glass transition behaviour of silks for archaeology and conservation. Journal of the Royal Society Interface, 2018 , 15, | 4.1 | 1 |

(2015-2017)

| 161 | 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 | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|--|
| 160 | 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 | |
| 159 | Silk micrococoons for protein stabilisation and molecular encapsulation. <i>Nature Communications</i> , 2017 , 8, 15902 | 17.4 | 65 | |
| 158 | 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 | |
| 157 | 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 | |
| 156 | Weaving our way towards a new generation of fibre-optic chemical sensors based on spider silk 2016 , | | 1 | |
| 155 | Dry-Spun Silk Produces Native-Like Fibroin Solutions. <i>Biomacromolecules</i> , 2016 , 17, 3198-3204 | 6.9 | 32 | |
| 154 | Spider Silk: Mother Nature's Bio-Superlens. <i>Nano Letters</i> , 2016 , 16, 5842-5 | 11.5 | 54 | |
| 153 | Strain-dependent fractional molecular diffusion in humid spider silk fibres. <i>Journal of the Royal Society Interface</i> , 2016 , 13, | 4.1 | 5 | |
| 152 | The complexity of silk under the spotlight of synthetic biology. <i>Biochemical Society Transactions</i> , 2016 , 44, 1151-7 | 5.1 | 5 | |
| 151 | Glass transitions in native silk fibres studied by dynamic mechanical thermal analysis. <i>Soft Matter</i> , 2016 , 12, 5926-36 | 3.6 | 33 | |
| 150 | Silk fibroin gelation via non-solvent induced phase separation. <i>Biomaterials Science</i> , 2016 , 4, 460-73 | 7.4 | 38 | |
| 149 | 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 | |
| 148 | Interesting green elastomeric composites: Silk textile reinforced natural rubber. <i>Polymer Testing</i> , 2016 , 55, 17-24 | 4.5 | 36 | |
| 147 | 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 | |
| 146 | Silk Reconstitution Disrupts Fibroin Self-Assembly. <i>Biomacromolecules</i> , 2015 , 16, 2796-804 | 6.9 | 30 | |
| 145 | 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 | |
| 144 | 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 | |

| 143 | Silk cocoons as natural macro-balloon fillers in novel polyurethane-based syntactic foams. <i>Polymer</i> , 2015 , 56, 93-101 | 3.9 | 22 |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|
| 142 | Linking naturally and unnaturally spun silks through the forced reeling of Bombyx mori. <i>Acta Biomaterialia</i> , 2015 , 11, 247-55 | 10.8 | 32 |
| 141 | Unpicking the signal thread of the sector web spider Zygiella x-notata. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 20150633 | 4.1 | 13 |
| 140 | Identification and classification of silks using infrared spectroscopy. <i>Journal of Experimental Biology</i> , 2015 , 218, 3138-49 | 3 | 65 |
| 139 | Spiders spinning electrically charged nano-fibres. <i>Biology Letters</i> , 2015 , 11, 20140813 | 3.6 | 19 |
| 138 | Spiderman silks Iscience and fiction. <i>Biochemist</i> , 2015 , 37, 6-9 | 0.5 | |
| 137 | Silk protein aggregation kinetics revealed by Rheo-IR. <i>Acta Biomaterialia</i> , 2014 , 10, 776-84 | 10.8 | 49 |
| 136 | Life cycle assessment of Indian silk. <i>Journal of Cleaner Production</i> , 2014 , 81, 158-167 | 10.3 | 35 |
| 135 | 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 |
| 134 | Investigating the rheological properties of native plant latex. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20130847 | 4.1 | 13 |
| 133 | Housing tubes from the marine worm Chaetopterus sp.: biomaterials with exceptionally broad thermomechanical properties. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140525 | 4.1 | 6 |
| 132 | Differential Scanning Fluorimetry provides high throughput data on silk protein transitions. <i>Scientific Reports</i> , 2014 , 4, 5625 | 4.9 | 29 |
| 131 | Structure and properties of silk from the African wild silkmoth Gonometa postica reared indoors. Journal of Insect Science, 2014 , 14, 36 | 2 | 7 |
| 130 | The speed of sound in silk: linking material performance to biological function. <i>Advanced Materials</i> , 2014 , 26, 5179-83 | 24 | 35 |
| 129 | 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 |
| 128 | African elephant alarm calls distinguish between threats from humans and bees. <i>PLoS ONE</i> , 2014 , 9, e8 | 940/3 | 32 |
| 127 | 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 |
| 126 | Consequences of electrical conductivity in an orb spider's capture web. <i>Die Naturwissenschaften</i> , 2013 , 100, 1163-9 | 2 | 19 |

| 125 | Water mediated proton hopping empowers proteins. Soft Matter, 2013, 9, 643-646 | 3.6 | 20 |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|
| 124 | Thermally induced changes in dynamic mechanical properties of native silks. <i>Biomacromolecules</i> , 2013 , 14, 930-7 | 6.9 | 73 |
| 123 | Forced reeling of Bombyx mori silk: separating behavior and processing conditions. <i>Biomacromolecules</i> , 2013 , 14, 3653-9 | 6.9 | 45 |
| 122 | Chitin in the silk gland ducts of the spider Nephila edulis and the silkworm Bombyx mori. <i>PLoS ONE</i> , 2013 , 8, e73225 | 3.7 | 29 |
| 121 | The impact behaviour of silk cocoons. <i>Journal of Experimental Biology</i> , 2013 , 216, 2648-57 | 3 | 33 |
| 120 | Spider silk morphology for responsive materials. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1498, 197-202 | | |
| 119 | Brown recluse spider's nanometer scale ribbons of stiff extensible silk. <i>Advanced Materials</i> , 2013 , 25, 7028-32 | 24 | 16 |
| 118 | Spider Silk: Brown Recluse Spider's Nanometer Scale Ribbons of Stiff Extensible Silk (Adv. Mater. 48/2013). <i>Advanced Materials</i> , 2013 , 25, 7027-7027 | 24 | |
| 117 | Morphology and structure of silkworm cocoons. <i>Materials Science and Engineering C</i> , 2012 , 32, 772-778 | 8.3 | 78 |
| 116 | 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 |
| 115 | Silk and synthetic polymers: reconciling 100 degrees of separation. <i>Advanced Materials</i> , 2012 , 24, 105-9, 104 | 24 | 86 |
| 114 | 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 |
| 113 | Distinct structural and optical regimes in natural silk spinning. <i>Biopolymers</i> , 2012 , 97, 368-73 | 2.2 | 16 |
| 112 | A novel marine silk. <i>Die Naturwissenschaften</i> , 2012 , 99, 3-10 | 2 | 21 |
| 111 | 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 |
| 110 | Silks cope with stress by tuning their mechanical properties under load. <i>Polymer</i> , 2012 , 53, 2717-2726 | 3.9 | 35 |
| 109 | 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 |
| 108 | Silk cocoon (Bombyx mori): multi-layer structure and mechanical properties. <i>Acta Biomaterialia</i> , 2012 , 8, 2620-7 | 10.8 | 93 |

| 107 | 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 |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----|
| 106 | Water mobility, denaturation and the glass transition in proteins. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2012 , 1824, 785-91 | 4 | 34 |
| 105 | Behavior of silk protein at the air water interface. Soft Matter, 2012, 8, 9705 | 3.6 | 29 |
| 104 | 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 |
| 103 | Spinning a Marine Silk for the Purpose of Tube-Building. <i>Journal of Crustacean Biology</i> , 2012 , 32, 191-20 | 2 0.8 | 17 |
| 102 | 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 |
| 101 | Structure and physical properties of silkworm cocoons. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 2299-308 | 4.1 | 88 |
| 100 | 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 |
| 99 | 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 |
| 98 | Wind speed affects prey-catching behaviour in an orb web spider. <i>Die Naturwissenschaften</i> , 2011 , 98, 1063-7 | 2 | 15 |
| 97 | 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 |
| 96 | Understanding the Mechanical Properties of Antheraea Pernyi Silk From Primary Structure to Condensed Structure of the Protein. <i>Advanced Functional Materials</i> , 2011 , 21, 729-737 | 15.6 | 94 |
| 95 | There are many more lessons still to be learned from spider silks. Soft Matter, 2011, 7, 9595 | 3.6 | 77 |
| 94 | Two mechanisms for supercontraction in Nephila spider dragline silk. <i>Biomacromolecules</i> , 2011 , 12, 403 | 0659 | 52 |
| 93 | Demineralization enables reeling of wild silkmoth cocoons. <i>Biomacromolecules</i> , 2011 , 12, 2257-66 | 6.9 | 32 |
| 92 | The impact of elephants, Loxodonta africana, 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 |
| 91 | Small angle neutron scattering of native and reconstituted silk fibroin. Soft Matter, 2010, 6, 4389 | 3.6 | 41 |
| 90 | Mulberry Silk, Spider Dragline and Recombinant Silks 2010 , 235-254 | | |

(2006-2010)

| 89 | Bee threat elicits alarm call in African elephants. <i>PLoS ONE</i> , 2010 , 5, e10346 | 3.7 | 30 |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|
| 88 | Nutrient balance affects foraging behaviour of a trap-building predator. <i>Biology Letters</i> , 2009 , 5, 735-8 | 3.6 | 32 |
| 87 | Beehive fence deters crop-raiding elephants. African Journal of Ecology, 2009, 47, 131-137 | 0.8 | 58 |
| 86 | A kinetic model for thermal degradation in polymers with specific application to proteins. <i>Polymer</i> , 2009 , 50, 1814-1818 | 3.9 | 18 |
| 85 | Silks as ancient models for modern polymers. <i>Polymer</i> , 2009 , 50, 5623-5632 | 3.9 | 121 |
| 84 | Concentration state dependence of the rheological and structural properties of reconstituted silk. <i>Biomacromolecules</i> , 2009 , 10, 2724-8 | 6.9 | 37 |
| 83 | Structural disorder in silk proteins reveals the emergence of elastomericity. <i>Biomacromolecules</i> , 2008 , 9, 216-21 | 6.9 | 44 |
| 82 | Proline and processing of spider silks. <i>Biomacromolecules</i> , 2008 , 9, 116-21 | 6.9 | 166 |
| 81 | 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 |
| 80 | 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 |
| 79 | Elasticity of spider silks. <i>Biomacromolecules</i> , 2008 , 9, 1782-6 | 6.9 | 61 |
| 78 | Deformation micromechanics of spider silk. <i>Journal of Materials Science</i> , 2008 , 43, 3728-3732 | 4.3 | 21 |
| 77 | Silk Fibroin-Regulated Crystallization of Calcium Carbonate. <i>Advanced Functional Materials</i> , 2008 , 18, 2172-2179 | 15.6 | 112 |
| 76 | Conformation transition kinetics of Bombyx mori silk protein. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007 , 68, 223-31 | 4.2 | 154 |
| 75 | African elephants run from the sound of disturbed bees. Current Biology, 2007, 17, R832-3 | 6.3 | 47 |
| 74 | 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 |
| 73 | Behavioural reactions of elephants towards a dying and deceased matriarch. <i>Applied Animal Behaviour Science</i> , 2006 , 100, 87-102 | 2.2 | 152 |
| 72 | Elephants avoid costly mountaineering. <i>Current Biology</i> , 2006 , 16, R527-9 | 6.3 | 108 |

| 71 | Spider silk: thousands of nano-filaments and dollops of sticky glue. Current Biology, 2006, 16, R925-7 | 6.3 | 26 |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----|
| 70 | 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 |
| 69 | Beta-silks: enhancing and controlling aggregation. Advances in Protein Chemistry, 2006, 73, 17-53 | | 34 |
| 68 | The spinning processes for spider silk. <i>Soft Matter</i> , 2006 , 2, 448-451 | 3.6 | 62 |
| 67 | Spider silk as archetypal protein elastomer. <i>Soft Matter</i> , 2006 , 2, 377-385 | 3.6 | 220 |
| 66 | Biopolymers: shape memory in spider draglines. <i>Nature</i> , 2006 , 440, 621 | 50.4 | 80 |
| 65 | 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 |
| 64 | Further investigation on potassium-induced conformation transition of Nephila spidroin film with two-dimensional infrared correlation spectroscopy. <i>Biomacromolecules</i> , 2005 , 6, 302-8 | 6.9 | 32 |
| 63 | Conformational polymorphism, stability and aggregation in spider dragline silks proteins. <i>International Journal of Biological Macromolecules</i> , 2005 , 36, 215-24 | 7.9 | 19 |
| 62 | 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 |
| 61 | Spider silk proteinsmechanical property and gene sequence. <i>Zoological Science</i> , 2005 , 22, 273-81 | 0.8 | 124 |
| 60 | Estimating elephant densities from wells and droppings in dried out riverbeds. <i>African Journal of Ecology</i> , 2005 , 43, 312-319 | 0.8 | 9 |
| 59 | Relationships between supercontraction and mechanical properties of spider silk. <i>Nature Materials</i> , 2005 , 4, 901-5 | 27 | 225 |
| 58 | Spiders' webs. Current Biology, 2005 , 15, R364-5 | 6.3 | 25 |
| 57 | Novel assembly properties of recombinant spider dragline silk proteins. <i>Current Biology</i> , 2004 , 14, 2070 | -€ .3 | 151 |
| 56 | Influence of CO2 on the micro-structural properties of spider dragline silk: X-ray microdiffraction results. <i>Die Naturwissenschaften</i> , 2004 , 91, 30-3 | 2 | 16 |
| 55 | Spider silk protein refolding is controlled by changing pH. <i>Biomacromolecules</i> , 2004 , 5, 704-10 | 6.9 | 127 |
| 54 | Structural conformation of spidroin in solution: a synchrotron radiation circular dichroism study. <i>Biomacromolecules</i> , 2004 , 5, 758-67 | 6.9 | 54 |

(2000-2004)

| 53 | 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 |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|
| 52 | NMR characterization of native liquid spider dragline silk from Nephila edulis. <i>Biomacromolecules</i> , 2004 , 5, 834-9 | 6.9 | 68 |
| 51 | pH induced changes in the rheology of silk fibroin solution from the middle division of Bombyx mori silkworm. <i>Biomacromolecules</i> , 2004 , 5, 768-72 | 6.9 | 150 |
| 50 | The effects of neurotoxins on web-geometry and web-building behaviour in Araneus diadematus Cl. <i>Physiology and Behavior</i> , 2004 , 82, 519-29 | 3.5 | 23 |
| 49 | Effects of prey quality and availability on the life history of a trap-building predator. <i>Oikos</i> , 2003 , 101, 631-638 | 4 | 52 |
| 48 | Structure and Behavior of Regenerated Spider Silk. <i>Macromolecules</i> , 2003 , 36, 1157-1161 | 5.5 | 92 |
| 47 | Analyis of structure/property relationships in silkworm (Bombyx mori) and spider dragline (Nephila edulis) silks using Raman spectroscopy. <i>Biomacromolecules</i> , 2003 , 4, 387-94 | 6.9 | 126 |
| 46 | Copper in the silk formation process of Bombyx mori silkworm. FEBS Letters, 2003, 554, 337-41 | 3.8 | 52 |
| 45 | African bees to control African elephants. <i>Die Naturwissenschaften</i> , 2002 , 89, 508-11 | 2 | 39 |
| 44 | Amyloidogenic nature of spider silk. <i>FEBS Journal</i> , 2002 , 269, 4159-63 | | 167 |
| 43 | Surprising strength of silkworm silk. <i>Nature</i> , 2002 , 418, 741 | 50.4 | 724 |
| 42 | Rheological characterization of nephila spidroin solution. <i>Biomacromolecules</i> , 2002 , 3, 644-8 | 6.9 | 109 |
| 41 | Changes in element composition along the spinning duct in a Nephila spider. <i>Die Naturwissenschaften</i> , 2001 , 88, 179-82 | 2 | 188 |
| 40 | Liquid crystalline spinning of spider silk. <i>Nature</i> , 2001 , 410, 541-8 | 50.4 | 1244 |
| 39 | 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 |
| 38 | Extreme body size variability in the golden silk spider (Nephila edulis) does not extend to genitalia. <i>Journal of Zoology</i> , 2000 , 251, 7-14 | 2 | 28 |
| 37 | Strength and structure of spiders' silks. Reviews in Molecular Biotechnology, 2000, 74, 67-83 | | 188 |
| 36 | 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 |

| 35 | Extreme body size variability in the golden silk spider (Nephila edulis) does not extend to genitalia 2000 , 251, 7 | | 2 |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|
| 34 | The effect of solvents on the contraction and mechanical properties of spider silk. <i>Polymer</i> , 1999 , 40, 1799-1806 | 3.9 | 126 |
| 33 | 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 |
| 32 | Biology of spider silk. <i>International Journal of Biological Macromolecules</i> , 1999 , 24, 81-8 | 7.9 | 169 |
| 31 | 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 |
| 30 | 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 |
| 29 | In Situ X-ray Diffraction during Forced Silking of Spider Silk. <i>Macromolecules</i> , 1999 , 32, 4464-4466 | 5.5 | 85 |
| 28 | Fabrication of Magnetic Spider Silk and Other Silk-Fiber Composites Using Inorganic Nanoparticles. <i>Advanced Materials</i> , 1998 , 10, 801-805 | 24 | 88 |
| 27 | The effect of prey type on the geometry of the capture web of Araneus diadematus. <i>Die Naturwissenschaften</i> , 1998 , 85, 391-394 | 2 | 52 |
| 26 | Dwarf males. <i>Trends in Ecology and Evolution</i> , 1998 , 13, 159-63 | 10.9 | 157 |
| 25 | Genital morphology of Nephila edulis: implications for sperm competition in spiders. <i>Canadian Journal of Zoology</i> , 1998 , 76, 39-47 | 1.5 | 8 |
| 24 | Design variability in web geometry of an orb-weaving spider. <i>Physiology and Behavior</i> , 1997 , 62, 735-43 | 3.5 | 90 |
| 23 | 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 |
| 22 | Structural engineering of an orb-spider's web. <i>Nature</i> , 1995 , 373, 146-148 | 50.4 | 119 |
| 21 | The Selfish Crouton. <i>Behaviour</i> , 1995 , 132, 49-55 | 1.4 | 7 |
| 20 | Unfreezing the behaviour of two orb spiders. <i>Physiology and Behavior</i> , 1995 , 58, 1167-73 | 3.5 | 39 |
| 19 | Fragrant genes help Damenwahl. <i>Trends in Ecology and Evolution</i> , 1995 , 10, 307-8 | 10.9 | 18 |
| 18 | Thread biomechanics in the two orb-weaving spiders Araneus diadematus (Araneae, Araneidae) and Uloborus walckenaerius (Araneae, Uloboridae). <i>The Journal of Experimental Zoology</i> , 1995 , 271, 1-17 | | 94 |

LIST OF PUBLICATIONS

| 17 | Design features of the orb web of the spider, Araneus diadematus. <i>Behavioral Ecology</i> , 1994 , 5, 280-287 | 7 2.3 | 63 |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----|
| 16 | 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 |
| 15 | Sex-ratio adjustment in solitary and social spiders. <i>Trends in Ecology and Evolution</i> , 1992 , 7, 326-7 | 10.9 | 12 |
| 14 | Spider webs are efficient collectors of agrochemical spray. <i>Pest Management Science</i> , 1992 , 36, 47-51 | | 28 |
| 13 | Sexual dimorphism and distorted sex ratios in spiders. <i>Nature</i> , 1992 , 360, 156-159 | 50.4 | 224 |
| 12 | Compounds in the droplets of the orb spider's viscid spiral. <i>Nature</i> , 1990 , 345, 526-528 | 50.4 | 184 |
| 11 | Modulation of the mechanical properties of spider silk by coating with water. <i>Nature</i> , 1989 , 340, 305-30 |)7 50.4 | 224 |
| 10 | Spiral orientation of Araneus diadematus orb webs built during vertical rotation. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1988 , 162, 413-419 | 9 ^{2.3} | 15 |
| 9 | Untangling the spider's web. <i>Trends in Ecology and Evolution</i> , 1988 , 3, 331-5 | 10.9 | 22 |
| 8 | Altered geometry of webs in spiders with regenerated legs. <i>Nature</i> , 1987 , 328, 247-248 | 50.4 | 53 |
| 7 | Eusociality and extraordinary sex ratios in the spider Anelosimus eximius (Araneae: Theridiidae). <i>Behavioral Ecology and Sociobiology</i> , 1986 , 18, 283-287 | 2.5 | 70 |
| 6 | Gravity as an orientation guide during web-construction in the orb spiderAraneus diadematus (Araneae, Araneidae). <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1986 , 159, 275-280 | 2.3 | 20 |
| 5 | Web spider's dilemma: a risky move or site dependent growth. <i>Oecologia</i> , 1985 , 68, 69-72 | 2.9 | 72 |
| 4 | Prey Capture and Feeding in the Social Spider Anelosimus eximius. <i>Zeitschrift Fil Tierpsychologie</i> , 1983 , 61, 334-340 | | 41 |
| 3 | Colony Foundation in a Social Spider. Zeitschrift Fl Tierpsychologie, 1982, 60, 313-324 | | 62 |
| 2 | Male Body Size and Fitness in the Web-building Spider Nephila clavipes. <i>Zeitschrift F</i> II <i>Tierpsychologie</i> , 1980 , 53, 61-78 | | 103 |
| 1 | Behaviour of the kleptoparasitic spider Argyrodes elevatus (Araneae, theridiidae). <i>Animal Behaviour</i> , 1979 , 27, 515-521 | 2.8 | 75 |