JosÃ© PÃ©rez-Rigueiro

List of Publications by Year
in descending order

98 papers	3,417 citations	136740 32 h-index	161609 54 g-index
98 all docs	98 docs citations	98 times ranked	2446 citing authors

#	Article	IF	Citations
1	Expression of spidroin proteins in the silk glands of golden orbâ€weaver spiders. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2022, 338, 241-253.	0.6	8
2	Silkworm Gut Fibres from Silk Glands of Samia cynthia riciniâ€"Potential Use as a Scaffold in Tissue Engineering. International Journal of Molecular Sciences, 2022, 23, 3888.	1.8	3
3	Improved cell adhesion to activated vapor silanization-biofunctionalized Ti-6Al-4V surfaces with ECM-derived oligopeptides. Materials Science and Engineering C, 2022, 133, 112614.	3.8	8
4	Strategies for the Biofunctionalization of Straining Flow Spinning Regenerated Bombyx mori Fibers. Molecules, 2022, 27, 4146.	1.7	1
5	Basic Principles in the Design of Spider Silk Fibers. Molecules, 2021, 26, 1794.	1.7	18
6	Silk Fibroin: An Ancient Material for Repairing the Injured Nervous System. Pharmaceutics, 2021, 13, 429.	2.0	36
7	Biomimetic Approaches for Separated Regeneration of Sensory and Motor Fibers in Amputee People: Necessary Conditions for Functional Integration of Sensoryâ€"Motor Prostheses With the Peripheral Nerves. Frontiers in Bioengineering and Biotechnology, 2020, 8, 584823.	2.0	5
8	Application of the Spider Silk Standardization Initiative (S3I) methodology to the characterization of major ampullate gland silk fibers spun by spiders from Pantanos de Villa wetlands (Lima, Peru). Journal of the Mechanical Behavior of Biomedical Materials, 2020, 111, 104023.	1.5	13
9	Regenerated Silk Fibers Obtained by Straining Flow Spinning for Guiding Axonal Elongation in Primary Cortical Neurons. ACS Biomaterials Science and Engineering, 2020, 6, 6842-6852.	2.6	10
10	Biotechnology and Biomaterial-Based Therapeutic Strategies for Age-Related Macular Degeneration. Part II: Cell and Tissue Engineering Therapies. Frontiers in Bioengineering and Biotechnology, 2020, 8, 588014.	2.0	7
11	Biomaterials to Neuroprotect the Stroke Brain: A Large Opportunity for Narrow Time Windows. Cells, 2020, 9, 1074.	1.8	32
12	Lessons From Spider and Silkworm Silk Guts. Frontiers in Materials, 2020, 7, .	1.2	7
13	Structureâ€"Function Relationship of Artificial Spider Silk Fibers Produced by Straining Flow Spinning. Biomacromolecules, 2020, 21, 2116-2124.	2.6	32
14	Conduits based on the combination of hyaluronic acid and silk fibroin: Characterization, in vitro studies and in vivo biocompatibility. International Journal of Biological Macromolecules, 2020, 148, 378-390.	3.6	15
15	Mechanical and structural adaptations to migration in the flight feathers of a Palaearctic passerine. Journal of Evolutionary Biology, 2020, 33, 979-989.	0.8	6
16	First steps for the development of silk fibroin-based 3D biohybrid retina for age-related macular degeneration (AMD). Journal of Neural Engineering, 2020, 17, 055003.	1.8	3
17	Potential use of silkworm gut fiber braids as scaffolds for tendon and ligament tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 2209-2215.	1.6	17
18	Evaluation of Neurosecretome from Mesenchymal Stem Cells Encapsulated in Silk Fibroin Hydrogels. Scientific Reports, 2019, 9, 8801.	1.6	27

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19	Production of regenerated silkworm silk fibers from aqueous dopes through straining flow spinning. Textile Reseach Journal, 2019, 89, 4554-4567.	1.1	7
20	Functionalization of atomic force microscopy cantilevers and tips by activated vapour silanization. Applied Surface Science, 2019, 484, 1141-1148.	3.1	5
21	Preparation and characterization of <i>Nephila clavipes</i> tubuliform silk gut. Soft Matter, 2019, 15, 2960-2970.	1.2	9
22	Comparison of cell mechanical measurements provided by Atomic Force Microscopy (AFM) and Micropipette Aspiration (MPA). Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 103-115.	1.5	22
23	Emergence of supercontraction in regenerated silkworm (Bombyx mori) silk fibers. Scientific Reports, 2019, 9, 2398.	1.6	20
24	Enhanced Biological Response of AVS-Functionalized Ti-6Al-4V Alloy through Covalent Immobilization of Collagen. Scientific Reports, 2018, 8, 3337.	1.6	20
25	Straining Flow Spinning of Artificial Silk Fibers: A Review. Biomimetics, 2018, 3, 29.	1.5	16
26	Cortical Reshaping and Functional Recovery Induced by Silk Fibroin Hydrogels-Encapsulated Stem Cells Implanted in Stroke Animals. Frontiers in Cellular Neuroscience, 2018, 12, 296.	1.8	34
27	Hydrogels-Assisted Cell Engraftment for Repairing the Stroke-Damaged Brain: Chimera or Reality. Polymers, 2018, 10, 184.	2.0	28
28	Comparison of the effects of post-spinning drawing and wet stretching on regenerated silk fibers produced through straining flow spinning. Polymer, 2018, 150, 311-317.	1.8	21
29	Improved Measurement of Elastic Properties of Cells by Micropipette Aspiration and Its Application to Lymphocytes. Annals of Biomedical Engineering, 2017, 45, 1375-1385.	1.3	20
30	Production of High Performance Bioinspired Silk Fibers by Straining Flow Spinning. Biomacromolecules, 2017, 18, 1127-1133.	2.6	38
31	Stability and activity of lactate dehydrogenase on biofunctional layers deposited by activated vapor silanization (AVS) and immersion silanization (IS). Applied Surface Science, 2017, 416, 965-970.	3.1	9
32	Straining flow spinning: Simplified model of a bioinspired process to mass produce regenerated silk fibers controllably. European Polymer Journal, 2017, 97, 26-39.	2.6	9
33	Straining flow spinning: production of regenerated silk fibers under a wide range of mild coagulating chemistries. Green Chemistry, 2017, 19, 3380-3389.	4.6	23
34	The apparent variability of silkworm (Bombyx mori) silk and its relationship with degumming. European Polymer Journal, 2016, 78, 129-140.	2.6	33
35	Safety and tolerability of silk fibroin hydrogels implanted into the mouse brain. Acta Biomaterialia, 2016, 45, 262-275.	4.1	86
36	Material properties of evolutionary diverse spider silks described by variation in a single structural parameter. Scientific Reports, 2016, 6, 18991.	1.6	41

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37	Development of a versatile procedure for the biofunctionalization of Ti-6Al-4V implants. Applied Surface Science, 2016, 387, 652-660.	3.1	6
38	Unexpected behavior of irradiated spider silk links conformational freedom to mechanical performance. Soft Matter, 2015, 11, 4868-4878.	1.2	17
39	Topographical and mechanical characterization of living eukaryotic cells on opaque substrates: development of a general procedure and its application to the study of non-adherent lymphocytes. Physical Biology, 2015, 12, 026005.	0.8	4
40	Mechanical behaviour and formation process of silkworm silk gut. Soft Matter, 2015, 11, 8981-8991.	1.2	14
41	Insights into the production and characterization of electrospun fibers from regenerated silk fibroin. European Polymer Journal, 2014, 60, 123-134.	2.6	10
42	Optimization of functionalization conditions for protein analysis by AFM. Applied Surface Science, 2014, 317, 462-468.	3.1	11
43	Spider silk gut: Development and characterization of a novel strong spider silk fiber. Scientific Reports, 2014, 4, 7326.	1.6	14
44	The variability and interdependence of spider viscid line tensile properties. Journal of Experimental Biology, 2013, 216, 4722-8.	0.8	7
45	Sequential origin in the high performance properties of orb spider dragline silk. Scientific Reports, 2012, 2, 782.	1.6	80
46	Relationship between microstructure and mechanical properties in spider silk fibers: identification of two regimes in the microstructural changes. Soft Matter, 2012, 8, 6015.	1.2	82
47	Minor Ampullate Silks from Nephila and Argiope Spiders: Tensile Properties and Microstructural Characterization. Biomacromolecules, 2012, 13, 2087-2098.	2.6	52
48	Correlation between processing conditions, microstructure and mechanical behavior in regenerated silkworm silk fibers. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 455-465.	2.4	37
49	Bioinspired Fibers Follow the Track of Natural Spider Silk. Macromolecules, 2011, 44, 1166-1176.	2.2	69
50	Polymeric fibers with tunable properties: Lessons from spider silk. Materials Science and Engineering C, 2011, 31, 1184-1188.	3.8	12
51	The hidden link between supercontraction and mechanical behavior of spider silks. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 658-669.	1.5	75
52	Recovery in Viscid Line Fibers. Biomacromolecules, 2010, 11, 1174-1179.	2.6	26
53	Supercontraction of dragline silk spun by lynx spiders (Oxyopidae). International Journal of Biological Macromolecules, 2010, 46, 555-557.	3.6	22
54	Mechanical Behavior of Silk During the Evolution of Orb-Web Spinning Spiders. Biomacromolecules, 2009, 10, 1904-1910.	2.6	56

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55	Old Silks Endowed with New Properties. Macromolecules, 2009, 42, 8977-8982.	2.2	54
56	Supramolecular organization of regenerated silkworm silk fibers. International Journal of Biological Macromolecules, 2009, 44, 195-202.	3.6	21
57	Effect of water on <i>Bombyx mori</i> regenerated silk fibers and its application in modifying their mechanical properties. Journal of Applied Polymer Science, 2008, 109, 1793-1801.	1.3	63
58	Spider Silk as an Inspiration for Biomimicking. Advances in Science and Technology, 2008, 58, 1-9.	0.2	0
59	Characterization of biofunctional thin films deposited by activated vapor silanization. Journal of Materials Research, 2008, 23, 1931-1939.	1.2	13
60	Similarities and Differences in the Supramolecular Organization of Silkworm and Spider Silk. Macromolecules, 2007, 40, 5360-5365.	2.2	50
61	Bioactivity test for amine-based functionalized meso- and macro-porous silicon substrates. Materials Science and Engineering C, 2007, 27, 1211-1214.	3.8	9
62	Fracture surfaces and tensile properties of UV-irradiated spider silk fibers. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 786-793.	2.4	19
63	Influence of the draw ratio on the tensile and fracture behavior of NMMO regenerated silk fibers. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2568-2579.	2.4	47
64	Volume Constancy during Stretching of Spider Silk. Biomacromolecules, 2006, 7, 2173-2177.	2.6	83
65	Thermo-hygro-mechanical behavior of spider dragline silk: Glassy and rubbery states. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 994-999.	2.4	92
66	Formation of amine functionalized films by chemical vapour deposition. Materials Science and Engineering C, 2006, 26, 938-941.	3.8	18
67	Example of microprocessing in a natural polymeric fiber: Role of reeling stress in spider silk. Journal of Materials Research, 2006, 21, 1931-1938.	1.2	23
68	The influence of anaesthesia on the tensile properties of spider silk. Journal of Experimental Biology, 2006, 209, 320-326.	0.8	12
69	Reproducibility of the tensile properties of spider (Argiope trifasciata) silk obtained by forced silking. Journal of Experimental Zoology Part A, Comparative Experimental Biology, 2005, 303A, 37-44.	1.3	33
70	Finding inspiration in argiope trifasciata spider silk fibers. Jom, 2005, 57, 60-66.	0.9	35
71	Stretching of supercontracted fibers: a link between spinning and the variability of spider silk. Journal of Experimental Biology, 2005, 208, 25-30.	0.8	107
72	The effect of spinning forces on spider silk properties. Journal of Experimental Biology, 2005, 208, 2633-2639.	0.8	76

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73	Reproducibility of the tensile properties of spider (Argiope trifasciata) silk obtained by forced silking. , 2005, 303A, 37.		1
74	Surface biofunctionalization of materials by amine groups. Journal of Materials Research, 2004, 19, 2415-2420.	1.2	32
75	Porous silicon multilayer stacks for optical biosensing applications. Microelectronics Journal, 2004, 35, 45-48.	1.1	29
76	Recovery in spider silk fibers. Journal of Applied Polymer Science, 2004, 92, 3537-3541.	1.3	59
77	Biofunctionalization of surfaces of nanostructured porous silicon. Materials Science and Engineering C, 2003, 23, 697-701.	3.8	62
78	Controlled supercontraction tailors the tensile behaviour of spider silk. Polymer, 2003, 44, 3733-3736.	1.8	102
79	Self-tightening of spider silk fibers induced by moisture. Polymer, 2003, 44, 5785-5788.	1.8	72
80	Effect of degumming on the tensile properties of silkworm (Bombyx mori) silk fiber. Journal of Applied Polymer Science, 2002, 84, 1431-1437.	1.3	106
81	Testing biomaterials by the in-situ evaluation of cell response. New Biotechnology, 2002, 19, 239-242.	2.7	18
82	Surface functionalisation by the condensation of hybrid titanateâ€"amino sols. Thin Solid Films, 2002, 415, 253-257.	0.8	8
83	Active control of spider silk strength: comparison of drag line spun on vertical and horizontal surfaces. Polymer, 2002, 43, 1537-1540.	1.8	76
84	The variability and interdependence of spider drag line tensile properties. Polymer, 2002, 43, 4495-4502.	1.8	57
85	Mechanical and in vitro testing of aerosolâ€"gel deposited titania coatings for biocompatible applications. Biomaterials, 2002, 23, 349-356.	5.7	35
86	Fractographic analysis of silkworm and spider silk. Engineering Fracture Mechanics, 2002, 69, 1035-1048.	2.0	108
87	Development of human mesenchymal stem cells on DC sputtered titanium nitride thin films. Journal of Materials Science: Materials in Medicine, 2002, 13, 289-293.	1.7	18
88	Tensile properties ofAttacus atlassilk submerged in liquid media. Journal of Applied Polymer Science, 2001, 82, 53-62.	1.3	16
89	Tensile properties of silkworm silk obtained by forced silking. Journal of Applied Polymer Science, 2001, 82, 1928-1935.	1.3	79
90	Mechanical properties of single-brin silkworm silk. Journal of Applied Polymer Science, 2000, 75, 1270-1277.	1.3	219

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91	Mechanical properties of silkworm silk in liquid media. Polymer, 2000, 41, 8433-8439.	1.8	121
92	Study of carrier transport in metal/porous silicon/Si structures. Journal of Applied Physics, 1999, 86, 6911-6914.	1.1	34
93	Ageing of aluminum electrical contacts to porous silicon. Journal of Applied Physics, 1999, 85, 583-586.	1.1	27
94	Revisiting the mechanical behavior of alumina/silicon carbide nanocomposites. Acta Materialia, 1998, 46, 5399-5411.	3.8	83
95	Silicidation process of Ti/TiNx/Si structures. Journal of Applied Physics, 1997, 81, 781-785.	1.1	7
96	Nitridation of TiSi2 thin films by rapid thermal processing. Surface and Coatings Technology, 1996, 80, 72-75.	2.2	4
97	Preparation of Siî—,TiSi2 Schottky diodes by rapid thermal annealing. Thin Solid Films, 1994, 246, 172-176.	0.8	6
98	Unexpected high toughness of <i>Samia cynthia ricini</i> silk gut. Soft Matter, 0, , .	1.2	0