

Gustavo Victor Guinea Tortuero

List of Publications by Citations

Source:

<https://exaly.com/author-pdf/4467114/gustavo-victor-guinea-tortuero-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

128
papers

5,075
citations

42
h-index

68
g-index

143
ext. papers

5,709
ext. citations

4.4
avg, IF

5.37
L-index

#	Paper	IF	Citations
128	The cohesive zone model: advantages, limitations and challenges. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 137-163	4.2	709
127	Measurement of the fracture energy using three-point bend tests: Part 2 Influence of bulk energy dissipation. <i>Materiaux Et Constructions</i> , 1992 , 25, 305-312		159
126	Measurement of the fracture energy using three-point bend tests: Part 3 Influence of cutting the P-Tail. <i>Materiaux Et Constructions</i> , 1992 , 25, 327-334		156
125	Measurement of the fracture energy using three-point bend tests: Part 1 Influence of experimental procedures. <i>Materiaux Et Constructions</i> , 1992 , 25, 212-218		153
124	Mixed Mode Fracture of Concrete under Proportional and Nonproportional Loading. <i>International Journal of Fracture</i> , 1998 , 94, 267-284	2.3	139
123	Stress Intensity factor, compliance and CMOD for a General Three-Point-Bend Beam. <i>International Journal of Fracture</i> , 1998 , 89, 103-116	2.3	130
122	A general bilinear fit for the softening curve of concrete. <i>Materiaux Et Constructions</i> , 1994 , 27, 99-105		127
121	Decellularization of pericardial tissue and its impact on tensile viscoelasticity and glycosaminoglycan content. <i>Acta Biomaterialia</i> , 2011 , 7, 1241-8	10.8	110
120	Failure criteria for linear elastic materials with U-notches. <i>International Journal of Fracture</i> , 2006 , 141, 99-113	2.3	106
119	Size effect and boundary conditions in the Brazilian test: Experimental verification. <i>Materials and Structures/Materiaux Et Constructions</i> , 1999 , 32, 210-217	3.4	101
118	Generalizations and specializations of cohesive crack models. <i>Engineering Fracture Mechanics</i> , 2003 , 70, 1759-1776	4.2	97
117	Stretching of supercontracted fibers: a link between spinning and the variability of spider silk. <i>Journal of Experimental Biology</i> , 2005 , 208, 25-30	3	95
116	Controlled supercontraction tailors the tensile behaviour of spider silk. <i>Polymer</i> , 2003 , 44, 3733-3736	3.9	93
115	Fractional-order viscoelasticity applied to describe uniaxial stress relaxation of human arteries. <i>Physics in Medicine and Biology</i> , 2008 , 53, 4543-54	3.8	88
114	The effect of the bond between the matrix and the aggregates on the cracking mechanism and fracture parameters of concrete. <i>Cement and Concrete Research</i> , 2002 , 32, 1961-1970	10.3	88
113	Review of the splitting-test standards from a fracture mechanics point of view. <i>Cement and Concrete Research</i> , 2001 , 31, 73-82	10.3	86
112	KI evaluation by the displacement extrapolation technique. <i>Engineering Fracture Mechanics</i> , 2000 , 66, 243-255	4.2	78

111	Mechanical behaviour and rupture of normal and pathological human ascending aortic wall. <i>Medical and Biological Engineering and Computing</i> , 2012 , 50, 559-66	3.1	76
110	Thermo-hygro-mechanical behavior of spider dragline silk: Glassy and rubbery states. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006 , 44, 994-999	2.6	76
109	Volume constancy during stretching of spider silk. <i>Biomacromolecules</i> , 2006 , 7, 2173-7	6.9	74
108	Size effect and boundary conditions in the brazilian test: theoretical analysis. <i>Materials and Structures/Materiaux Et Constructions</i> , 1999 , 32, 437-444	3.4	73
107	Relationship between microstructure and mechanical properties in spider silk fibers: identification of two regimes in the microstructural changes. <i>Soft Matter</i> , 2012 , 8, 6015	3.6	71
106	The effect of spinning forces on spider silk properties. <i>Journal of Experimental Biology</i> , 2005 , 208, 2633-9		69
105	Self-tightening of spider silk fibers induced by moisture. <i>Polymer</i> , 2003 , 44, 5785-5788	3.9	65
104	The hidden link between supercontraction and mechanical behavior of spider silks. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011 , 4, 658-69	4.1	63
103	Safety and tolerability of silk fibroin hydrogels implanted into the mouse brain. <i>Acta Biomaterialia</i> , 2016 , 45, 262-275	10.8	63
102	Sequential origin in the high performance properties of orb spider dragline silk. <i>Scientific Reports</i> , 2012 , 2, 782	4.9	62
101	Bioinspired Fibers Follow the Track of Natural Spider Silk. <i>Macromolecules</i> , 2011 , 44, 1166-1176	5.5	61
100	Fracture of model concrete: 2. Fracture energy and characteristic length. <i>Cement and Concrete Research</i> , 2006 , 36, 1345-1353	10.3	61
99	Cohesive cracks versus nonlocal models: Closing the gap. <i>International Journal of Fracture</i> , 1993 , 63, 173-187		60
98	Effect of water on Bombyx mori regenerated silk fibers and its application in modifying their mechanical properties. <i>Journal of Applied Polymer Science</i> , 2008 , 109, 1793-1801	2.9	55
97	Recovery in spider silk fibers. <i>Journal of Applied Polymer Science</i> , 2004 , 92, 3537-3541	2.9	52
96	Mechanical behavior of bilayered small-diameter nanofibrous structures as biomimetic vascular grafts. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 60, 220-233	4.1	51
95	Old Silks Endowed with New Properties. <i>Macromolecules</i> , 2009 , 42, 8977-8982	5.5	50
94	The effect of constraint on creep fracture assessments. <i>International Journal of Fracture</i> , 1997 , 87, 139-149		50

93	Size effect and inverse analysis in concrete fracture. <i>International Journal of Fracture</i> , 1999 , 95, 367-378	2.3	50
92	GENERALIZED SIZE EFFECT EQUATION FOR QUASIBRITTLE MATERIALS. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 1997 , 20, 671-687	3	49
91	On the measurement of concrete fracture energy using three-point bend tests. <i>Materiaux Et Constructions</i> , 1997 , 30, 375-376		49
90	Mechanical behavior of silk during the evolution of orb-web spinning spiders. <i>Biomacromolecules</i> , 2009 , 10, 1904-10	6.9	46
89	Advances in Micropipette Aspiration: Applications in Cell Biomechanics, Models, and Extended Studies. <i>Biophysical Journal</i> , 2019 , 116, 587-594	2.9	46
88	Similarities and Differences in the Supramolecular Organization of Silkworm and Spider Silk. <i>Macromolecules</i> , 2007 , 40, 5360-5365	5.5	44
87	Influence of the draw ratio on the tensile and fracture behavior of NMMO regenerated silk fibers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007 , 45, 2568-2579	2.6	43
86	Minor ampullate silks from Nephila and Argiope spiders: tensile properties and microstructural characterization. <i>Biomacromolecules</i> , 2012 , 13, 2087-98	6.9	39
85	Mechanical characterisation of the human thoracic descending aorta: experiments and modelling. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012 , 15, 185-93	2.1	38
84	Persistence and variation in microstructural design during the evolution of spider silk. <i>Scientific Reports</i> , 2015 , 5, 14820	4.9	35
83	Correlation between processing conditions, microstructure and mechanical behavior in regenerated silkworm silk fibers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012 , 50, 455-465	2.6	30
82	Stability and mechanical evaluation of bovine pericardium cross-linked with polyurethane prepolymer in aqueous medium. <i>Materials Science and Engineering C</i> , 2013 , 33, 2392-8	8.3	29
81	Reproducibility of the tensile properties of spider (<i>Argiope trifasciata</i>) silk obtained by forced silking. <i>Journal of Experimental Zoology Part A, Comparative Experimental Biology</i> , 2005 , 303, 37-44		29
80	Thermomechanical behavior of human carotid arteries in the passive state. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005 , 288, H2940-5	5.2	29
79	Finding inspiration in argiope trifasciata spider silk fibers. <i>Jom</i> , 2005 , 57, 60-66	2.1	28
78	Micromechanical modeling of brick-masonry fracture. <i>Cement and Concrete Research</i> , 2000 , 30, 731-737	10.3	28
77	Production of High Performance Bioinspired Silk Fibers by Straining Flow Spinning. <i>Biomacromolecules</i> , 2017 , 18, 1127-1133	6.9	27
76	Material properties of evolutionary diverse spider silks described by variation in a single structural parameter. <i>Scientific Reports</i> , 2016 , 6, 18991	4.9	25

75	The apparent variability of silkworm (<i>Bombyx mori</i>) silk and its relationship with degumming. <i>European Polymer Journal</i> , 2016 , 78, 129-140	5.2	25
74	Identification and dynamics of polyglycine II nanocrystals in <i>Argiope trifasciata</i> flagelliform silk. <i>Scientific Reports</i> , 2013 , 3, 3061	4.9	24
73	Mechanical properties of human coronary arteries. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2010 , 2010, 3792-5	0.9	24
72	Properties of concrete produced from multicomponent blended cements. <i>Cement and Concrete Research</i> , 2002 , 32, 1937-1942	10.3	24
71	Stress intensity factors for wedge-splitting geometry. <i>International Journal of Fracture</i> , 1996 , 81, 113-124.	3	23
70	Hydrogels-Assisted Cell Engraftment for Repairing the Stroke-Damaged Brain: Chimera or Reality. <i>Polymers</i> , 2018 , 10,	4.5	22
69	Assessment of the tensile strength through size effect curves. <i>Engineering Fracture Mechanics</i> , 2000 , 65, 189-207	4.2	22
68	Cortical Reshaping and Functional Recovery Induced by Silk Fibroin Hydrogels-Encapsulated Stem Cells Implanted in Stroke Animals. <i>Frontiers in Cellular Neuroscience</i> , 2018 , 12, 296	6.1	22
67	Recovery in viscid line fibers. <i>Biomacromolecules</i> , 2010 , 11, 1174-9	6.9	21
66	Efficacy of supraspinatus tendon repair using mesenchymal stem cells along with a collagen I scaffold. <i>Journal of Orthopaedic Surgery and Research</i> , 2015 , 10, 124	2.8	19
65	Supercontraction of dragline silk spun by lynx spiders (<i>Oxyopidae</i>). <i>International Journal of Biological Macromolecules</i> , 2010 , 46, 555-7	7.9	19
64	Supramolecular organization of regenerated silkworm silk fibers. <i>International Journal of Biological Macromolecules</i> , 2009 , 44, 195-202	7.9	19
63	Example of microprocessing in a natural polymeric fiber: Role of reeling stress in spider silk. <i>Journal of Materials Research</i> , 2006 , 21, 1931-1938	2.5	19
62	Constitutive model for fiber-reinforced materials with deformable matrices. <i>Physical Review E</i> , 2007 , 76, 041903	2.4	19
61	Evaluation of Neurosecretome from Mesenchymal Stem Cells Encapsulated in Silk Fibroin Hydrogels. <i>Scientific Reports</i> , 2019 , 9, 8801	4.9	18
60	Biomaterials to Neuroprotect the Stroke Brain: A Large Opportunity for Narrow Time Windows. <i>Cells</i> , 2020 , 9,	7.9	18
59	Structure-Function Relationship of Artificial Spider Silk Fibers Produced by Straining Flow Spinning. <i>Biomacromolecules</i> , 2020 , 21, 2116-2124	6.9	16
58	Factors influencing the mechanical behaviour of healthy human descending thoracic aorta. <i>Physiological Measurement</i> , 2010 , 31, 1553-65	2.9	15

57	Influencia de la presión y la temperatura en el comportamiento de la aorta y las carótidas humanas. <i>Revista Española De Cardiología</i> , 2007 , 60, 259-267	1.5	15
56	Fracture surfaces and tensile properties of UV-irradiated spider silk fibers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2007 , 45, 786-793	2.6	15
55	Improved Measurement of Elastic Properties of Cells by Micropipette Aspiration and Its Application to Lymphocytes. <i>Annals of Biomedical Engineering</i> , 2017 , 45, 1375-1385	4.7	14
54	Comparison of the effects of post-spinning drawing and wet stretching on regenerated silk fibers produced through straining flow spinning. <i>Polymer</i> , 2018 , 150, 311-317	3.9	14
53	Chronic renal dysfunction in maintenance heart transplant patients: the ICEBERG study. <i>Transplantation Proceedings</i> , 2014 , 46, 14-20	1.1	14
52	Increases of corporal temperature as a risk factor of atherosclerotic plaque instability. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 66-76	4.7	14
51	Brittle failure of dry spaghetti. <i>Engineering Failure Analysis</i> , 2004 , 11, 705-714	3.2	14
50	Crack trajectories under mixed mode and non-proportional loading. <i>International Journal of Fracture</i> , 1996 , 81, 171-193	2.3	14
49	Straining flow spinning: production of regenerated silk fibers under a wide range of mild coagulating chemistries. <i>Green Chemistry</i> , 2017 , 19, 3380-3389	10	14
48	Unexpected behavior of irradiated spider silk links conformational freedom to mechanical performance. <i>Soft Matter</i> , 2015 , 11, 4868-78	3.6	13
47	Simple measurement of the apparent viscosity of a cell from only one picture: Application to cardiac stem cells. <i>Physical Review E</i> , 2014 , 90, 052715	2.4	12
46	Polymeric fibers with tunable properties: Lessons from spider silk. <i>Materials Science and Engineering C</i> , 2011 , 31, 1184-1188	8.3	12
45	The influence of anaesthesia on the tensile properties of spider silk. <i>Journal of Experimental Biology</i> , 2006 , 209, 320-6	3	12
44	Modelling the fracture of concrete: the cohesive crack. <i>Materiaux Et Constructions</i> , 1995 , 28, 187-194		12
43	Emergence of supercontraction in regenerated silkworm (<i>Bombyx mori</i>) silk fibers. <i>Scientific Reports</i> , 2019 , 9, 2398	4.9	11
42	Enhanced Biological Response of AVS-Functionalized Ti-6Al-4V Alloy through Covalent Immobilization of Collagen. <i>Scientific Reports</i> , 2018 , 8, 3337	4.9	11
41	Comparison of cell mechanical measurements provided by Atomic Force Microscopy (AFM) and Micropipette Aspiration (MPA). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 95, 103-115	4.1	10
40	Mechanical behaviour and formation process of silkworm silk gut. <i>Soft Matter</i> , 2015 , 11, 8981-91	3.6	10

39	Conduits based on the combination of hyaluronic acid and silk fibroin: Characterization, in vitro studies and in vivo biocompatibility. <i>International Journal of Biological Macromolecules</i> , 2020 , 148, 378-390	7.9	10
38	Insights into the production and characterization of electrospun fibers from regenerated silk fibroin. <i>European Polymer Journal</i> , 2014 , 60, 123-134	5.2	10
37	Stiffness associated with quasi-concentrated loads. <i>Materiaux Et Constructions</i> , 1994 , 27, 311-318		10
36	Straining Flow Spinning of Artificial Silk Fibers: A Review. <i>Biomimetics</i> , 2018 , 3,	3.7	10
35	Spider silk gut: development and characterization of a novel strong spider silk fiber. <i>Scientific Reports</i> , 2014 , 4, 7326	4.9	8
34	Optimization of functionalization conditions for protein analysis by AFM. <i>Applied Surface Science</i> , 2014 , 317, 462-468	6.7	8
33	Straining flow spinning: Simplified model of a bioinspired process to mass produce regenerated silk fibers controllably. <i>European Polymer Journal</i> , 2017 , 97, 26-39	5.2	7
32	Stress intensity factors for internal circular cracks in fibers under tensile loading. <i>Engineering Fracture Mechanics</i> , 2004 , 71, 365-377	4.2	7
31	Stability and activity of lactate dehydrogenase on biofunctional layers deposited by activated vapor silanization (AVS) and immersion silanization (IS). <i>Applied Surface Science</i> , 2017 , 416, 965-970	6.7	6
30	The variability and interdependence of spider viscid line tensile properties. <i>Journal of Experimental Biology</i> , 2013 , 216, 4722-8	3	6
29	Single-cell biophysical study reveals deformability and internal ordering relationship in T cells. <i>Soft Matter</i> , 2020 , 16, 5669-5678	3.6	5
28	Preservation of muscular and elastic artery distensibility after an intercontinental cryoconserved exchange: theoretical advances in arterial homograft generation and utilization. <i>Artificial Organs</i> , 2009 , 33, 662-9	2.6	5
27	Assessment of defect size in brittle fibers. <i>Engineering Fracture Mechanics</i> , 2002 , 69, 1057-1066	4.2	5
26	Fracture mechanics applied to concrete. <i>European Structural Integrity Society</i> , 2000 , 26, 183-210		5
25	Biotechnology and Biomaterial-Based Therapeutic Strategies for Age-Related Macular Degeneration. Part II: Cell and Tissue Engineering Therapies. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 588014	5.8	5
24	Development of a versatile procedure for the biofunctionalization of Ti-6Al-4V implants. <i>Applied Surface Science</i> , 2016 , 387, 652-660	6.7	4
23	Probing the effect of tip pressure on fungal growth: Application to <i>Aspergillus nidulans</i> . <i>Physical Review E</i> , 2017 , 96, 022402	2.4	4
22	Application of the Spider Silk Standardization Initiative (SI) methodology to the characterization of major ampullate gland silk fibers spun by spiders from Pantanos de Villa wetlands (Lima, Peru). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 111, 104023	4.1	4

21	Silk Fibroin: An Ancient Material for Repairing the Injured Nervous System. <i>Pharmaceutics</i> , 2021 , 13,	6.4	4
20	Production of regenerated silkworm silk fibers from aqueous dopes through straining flow spinning. <i>Textile Reseach Journal</i> , 2019 , 89, 4554-4567	1.7	3
19	Functionalization of atomic force microscopy cantilevers and tips by activated vapour silanization. <i>Applied Surface Science</i> , 2019 , 484, 1141-1148	6.7	3
18	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. <i>Physical Biology</i> , 2015 , 12, 026005	3	3
17	Effect of atherosclerosis on thermo-mechanical properties of arterial wall and its repercussion on plaque instability. <i>International Journal of Cardiology</i> , 2009 , 132, 444-6	3.2	3
16	Optimal selection of biological tissue using the energy dissipated in the first loading cycle. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2010 , 95, 414-20	3.5	3
15	Biotechnology and Biomaterial-Based Therapeutic Strategies for Age-Related Macular Degeneration. Part I: Biomaterials-Based Drug Delivery Devices. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 549089	5.8	3
14	Basic Principles in the Design of Spider Silk Fibers. <i>Molecules</i> , 2021 , 26,	4.8	3
13	Indentation hardness: A simple test that correlates with the dissipated-energy predictor for fatigue-life in bovine pericardium membranes for bioprosthetic heart valves. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 61, 55-61	4.1	3
12	Structure and properties of spider and silkworm silk for tissue scaffolds**This chapter was first published as Chapter 9 Structure and properties of spider and silkworm silk for tissue scaffoldsBy Gustavo Guinea in Silk biomaterials for tissue engineering and regenerative medicine, ed. S. Kundu, Woodhead Publishing Limited, 2014. ISBN: 978-0-85709-699-9. 2015, 185-217		2
11	Structure and properties of spider and silkworm silk for tissue scaffolds 2014 , 239-274		2
10	First steps for the development of silk fibroin-based 3D biohybrid retina for age-related macular degeneration (AMD). <i>Journal of Neural Engineering</i> , 2020 , 17, 055003	5	2
9	Regenerated Silk Fibers Obtained by Straining Flow Spinning for Guiding Axonal Elongation in Primary Cortical Neurons. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 6842-6852	5.5	2
8	Tear and decohesion of bovine pericardial tissue. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 63, 1-9	4.1	2
7	Association between mechanics and structure in arteries and veins: theoretical approach to vascular graft confection. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2009 , 2009, 4258-61	0.9	1
6	Arterial complex elastic modulus was preserved after an intercontinental cryoconserved exchange. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2008 , 2008, 3598-601	0.9	1
5	Reproducibility of the tensile properties of spider (<i>Argiope trifasciata</i>) silk obtained by forced silking 2005 , 303A, 37		1
4	Improved cell adhesion to activated vapor silanization-biofunctionalized Ti-6Al-4V surfaces with ECM-derived oligopeptides.. <i>Materials Science and Engineering C</i> , 2021 , 112614	8.3	0

- 3 Mechanical Characterization of the Human Aorta: Experiments, Modeling and Simulation. *Advanced Structured Materials*, **2016**, 151-202 0.6
- 2 Spider Silk as an Inspiration for Biomimicking. *Advances in Science and Technology*, **2008**, 58, 1-9 0.1
- 1 Size effect and inverse analysis in concrete fracture **1999**, 367-378