E Kristofer Gamstedt

List of Publications by Year
in descending order

106 papers	3,016 citations	147726 31 h-index	206029 48 g-index
106 all docs	106 docs citations	106 times ranked	3235 citing authors

#	Article	IF	Citations
1	Micromechanisms in tension-compression fatigue of composite laminates containing transverse plies. Composites Science and Technology, 1999, 59, 167-178.	3.8	168
2	Fatigue damage mechanisms in unidirectional carbon-fibre-reinforced plastics. , 1999, 34, 2535-2546.		149
3	Mixed-mode delamination growth in carbonâ€“fibre composite laminates under cyclic loading. International Journal of Solids and Structures, 2004, 41, 4219-4235.	1.3	126
4	Mechanically Stretchable and Electrically Insulating Thermal Elastomer Composite by Liquid Alloy Droplet Embedment. Scientific Reports, 2016, 5, 18257.	1.6	109
5	Stiffness Contribution of Various Wood Fibers to Composite Materials. Journal of Composite Materials, 2006, 40, 663-699.	1.2	102
6	Wood versus Plant Fibers: Similarities and Differences in Composite Applications. Advances in Materials Science and Engineering, 2013, 2013, 1-14.	1.0	99
7	Fatigue mechanisms in unidirectional glass-fibre-reinforced polypropylene. Composites Science and Technology, 1999, 59, 759-768.	3.8	93
8	A non-destructive X-ray microtomography approach for measuring fibre length in short-fibre composites. Composites Science and Technology, 2012, 72, 1901-1908.	3.8	78
9	Effects of voids on quasi-static and tension fatigue behaviour of carbon-fibre composite laminates. Journal of Composite Materials, 2015, 49, 2137-2148.	1.2	67
10	An experimental investigation of the sequence effect in block amplitude loading of cross-ply composite laminates. International Journal of Fatigue, 2002, 24, 437-446.	2.8	65
11	Micromechanical model of cross-over fibre bridging â€“ Prediction of mixed mode bridging laws. Mechanics of Materials, 2008, 40, 220-234.	1.7	62
12	Modelling of effects of ultrastructural morphology on the hygroelastic properties of wood fibres. Journal of Materials Science, 2007, 42, 10254-10274.	1.7	61
13	Mechanical characteristics of nanocellulose-PEG bionanocomposite wound dressings in wet conditions. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 377-384.	1.5	61
14	Characterization of wellâ€defined poly(ethylene glycol) hydrogels prepared by thiolâ€ene chemistry. Journal of Polymer Science Part A, 2011, 49, 4044-4054.	2.5	58
15	State of Degradation in Archeological Oak from the 17th Century <i>Vasa</i> Ship: Substantial Strength Loss Correlates with Reduction in (Holo)Cellulose Molecular Weight. Biomacromolecules, 2012, 13, 2521-2527.	2.6	57
16	A non-solvent approach for high-stiffness all-cellulose biocomposites based on pure wood cellulose. Composites Science and Technology, 2010, 70, 1704-1712.	3.8	55
17	Synthesis of unsaturated polyesters for improved interfacial strength in carbon fibre composites. Composites Part A: Applied Science and Manufacturing, 2002, 33, 1239-1252.	3.8	50
18	High-resolution computed tomography in resin infused woven carbon fibre composites with voids. Composites Science and Technology, 2016, 131, 12-21.	3.8	50

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19	Dynamicâ€“Mechanical Properties of Woodâ€“Fiber Reinforced Polylactide: Experimental Characterization and Micromechanical Modeling. Journal of Thermoplastic Composite Materials, 2006, 19, 613-637.	2.6	48
20	Hierarchical modelling of microstructural effects on mechanical properties of wood. A review COST Action E35 2004â€"2008: Wood machining â€" micromechanics and fracture. Holzforschung, 2009, 63, 130-138.	0.9	46
21	Influence of wood-fibre hygroexpansion on the dimensional instability of fibre mats and composites. Composites Part A: Applied Science and Manufacturing, 2005, 36, 772-788.	3.8	43
22	Towards improved understanding of PEG-impregnated waterlogged archaeological wood: A model study on recent oak. Holzforschung, 2010, 64, .	0.9	43
23	Ultrastructural features affecting mechanical properties of wood fibres. Wood Material Science and Engineering, 2006, 1, 146-170.	1.1	40
24	Effects of defects on the tensile strength of short-fibre composite materials. Mechanics of Materials, 2014, 75, 125-134.	1.7	40
25	Toward an alternative compatibilizer for PLA/cellulose composites: Grafting of xyloglucan with PLA. Carbohydrate Polymers, 2012, 89, 1038-1043.	5.1	39
26	Hygromechanical properties of composites of crosslinked allylglycidyl-ether modified starch reinforced by wood fibres. Composites Science and Technology, 2007, 67, 3090-3097.	3.8	38
27	Swelling of cellulose fibres in composite materials: Constraint effects of the surrounding matrix. Composites Science and Technology, 2013, 74, 52-59.	3.8	38
28	Moisture uptake and hygroexpansion of wood fiber composite materials with polylactide and polypropylene matrix materials. Polymer Composites, 2009, 30, 1809-1816.	2.3	37
29	First Aldol Cross-Linked Hyaluronic Acid Hydrogel: Fast and Hydrolytically Stable Hydrogel with Tissue Adhesive Properties. ACS Applied Materials & Interfaces, 2019, 11, 38232-38239.	4.0	34
30	X-ray micro-computed tomography investigation of fibre length degradation during the processing steps of short-fibre composites. Composites Science and Technology, 2014, 105, 127-133.	3.8	33
31	Effects of debonding and fiber strength distribution on fatigue-damage propagation in carbon fiber-reinforced epoxy. Journal of Applied Polymer Science, 2000, 76, 457-474.	1.3	32
32	Effects of the presence of compression in transverse cyclic loading on fibreâ€“matrix debonding in unidirectional composite plies. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2260-2269.	3.8	32
33	Modelling of the hygroelastic behaviour of normal and compression wood tracheids. Journal of Structural Biology, 2014, 185, 89-98.	1.3	32
34	A Method to Measure Moisture Induced Swelling Properties of a Single Wood Cell. Experimental Mechanics, 2016, 56, 723-733.	1.1	32
35	Stiffness contribution of cellulose nanofibrils to composite materials. International Journal of Solids and Structures, 2014, 51, 945-953.	1.3	31
36	Seamless modulus gradient structures for highly resilient, stretchable system integration. Materials Today Physics, 2018, 4, 28-35.	2.9	29

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37	Synthesis and Preparation of Crosslinked Allylglycidyl Etherâ€Modified Starchâ€Wood Fibre Composites. Starch/Staerke, 2007, 59, 523-532.	1.1	26
38	Fatigue Propagation of Fibre-Bridged Cracks in Unidirectional Polymer-Matrix Composites. Applied Composite Materials, 2001, 8, 385-410.	1.3	25
39	Compression molded wood pulp biocomposites: a study of hemicellulose influence on cellulose supramolecular structure and material properties. Cellulose, 2012, 19, 751-760.	2.4	25
40	Prediction of elastic properties of nanofibrillated cellulose from micromechanical modeling and nano-structure characterization by transmission electron microscopy. Cellulose, 2013, 20, 761-770.	2.4	25
41	Characterization of interfacial stress transfer ability of particulate cellulose composite materials. Mechanics of Materials, 2011, 43, 693-704.	1.7	24
42	Failure location prediction by finite element analysis for an additive manufactured mandible implant. Medical Engineering and Physics, 2015, 37, 862-869.	0.8	24
43	Enhancing corrosion resistance, hardness, and crack resistance in magnetron sputtered high entropy CoCrFeMnNi coatings by adding carbon. Materials and Design, 2021, 205, 109711.	3.3	24
44	Stiffness of Aligned Wood Fiber Composites: Effect of Microstructure and Phase Properties. Journal of Composite Materials, 2008, 42, 2377-2405.	1.2	23
45	Polymer fracture and deformation during nanosectioning in an ultramicrotome. Engineering Fracture Mechanics, 2017, 182, 595-606.	2.0	22
46	Influence of molecular weight on strain-gradient yielding in polystyrene. Polymer Engineering and Science, 2004, 44, 1987-1997.	1.5	21
47	The potential of wood fibers as reinforcement in cellular biopolymers. Journal of Cellular Plastics, 2012, 48, 71-103.	1.2	21
48	Experimental assessment of micromechanical models for fragmentation analysis of thin metal oxide coatings on polymer films under uniaxial tensile deformation. Surface and Coatings Technology, 2019, 370, 374-383.	2.2	20
49	Fatigue Dissipation and Failure in Unidirectional and Angle-Ply Glass Fibre/Carbon Fibre Hybrid Laminates. Key Engineering Materials, 2002, 221-222, 35-48.	0.4	19
50	Length-scale effects on damage development in tensile loading of glass-sphere filled epoxy. International Journal of Solids and Structures, 2006, 43, 7337-7357.	1.3	19
51	Mixed numericalâ€"experimental methods in wood micromechanics. Wood Science and Technology, 2013, 47, 183-202.	1.4	19
52	The influence of chemical degradation and polyethylene glycol on moisture-dependent cell wall properties of archeological wooden objects: a case study of the Vasa shipwreck. Wood Science and Technology, 2016, 50, 1103-1123.	1.4	19
53	Role of fibreâ€"fibre and fibreâ€"matrix adhesion in stress transfer in composites made from resin-impregnated paper sheets. International Journal of Adhesion and Adhesives, 2009, 29, 551-557.	1.4	18
54	Modeling wood fiber deformation caused by vapor expansion during steam explosion of wood. Wood Science and Technology, 2014, 48, 353-372.	1.4	18

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55	Monitoring archaeological wooden structures: Non-contact measurement systems and interpretation as average strain fields. Journal of Cultural Heritage, 2016, 17, 102-113.	1.5	18
56	Rate effects on localized shear deformation during nanosectioning of an amorphous thermoplastic polymer. International Journal of Solids and Structures, 2017, 129, 40-48.	1.3	18
57	Application of bridging-law concepts to short-fibre composites Part 3: Bridging law derivation from experimental crack profiles. Composites Science and Technology, 2000, 60, 2883-2894.	3.8	17
58	Analysis of the mixed-mode end load split delamination test. Composite Structures, 2006, 76, 14-20.	3.1	17
59	Characterisation of cubic oak specimens from the <i>Vasa</i> ship and recent wood by means of quasi-static loading and resonance ultrasound spectroscopy (RUS). Holzforschung, 2016, 70, 457-465.	0.9	17
60	Stiffness reduction, creep, and irreversible strains in fiber composites tested in repeated interlaminar shear. Composite Structures, 2006, 76, 151-161.	3.1	16
61	Effects of Moisture on Dynamic Mechanical Properties of Wood Fiber Composites Studied by Dynamic FT-IR Spectroscopy. Journal of Reinforced Plastics and Composites, 2008, 27, 1709-1721.	1.6	14
62	Measurement of fibreâ€“fibre contact in three-dimensional images of fibrous materials obtained from X-ray synchrotron microtomography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 637, 143-148.	0.7	14
63	Fibril orientation redistribution induced by stretching of cellulose nanofibril hydrogels. Journal of Applied Physics, 2015, 117, 214311.	1.1	14
64	A 3D in-situ investigation of the deformation in compressive loading in the thickness direction of cellulose fiber mats. Cellulose, 2015, 22, 2993-3001.	2.4	14
65	Relations of density, polyethylene glycol treatment and moisture content with stiffness properties of <i>Vasa</i> oak samples. Holzforschung, 2017, 71, 327-335.	0.9	14
66	Distribution of strain to failure of single wood pulp fibres. Nordic Pulp and Paper Research Journal, 2001, 16, 46-56.	0.3	13
67	Characterization of Interfacial Stress Transfer Ability by Dynamic Mechanical Analysis of Cellulose Fiber Based Composite Materials. Composite Interfaces, 2010, 17, 845-861.	1.3	13
68	Studies on mechanical properties of wood fiber reinforced cross-linked starch composites made from enzymatically degraded allylglycidyl ether-modified starch. Composites Part A: Applied Science and Manufacturing, 2010, 41, 1409-1418.	3.8	13
69	Glass fiber reinforced high glass transition temperature thiolâ€“ene networks. Composites Part A: Applied Science and Manufacturing, 2011, 42, 1800-1808.	3.8	12
70	Orthotropic creep in polyethylene glycol impregnated archaeological oak from the Vasa ship. Mechanics of Time-Dependent Materials, 2019, 23, 35-52.	2.3	12
71	Mechanical hinge system for delamination tests in beam-type composite specimens. Composites Science and Technology, 2008, 68, 1837-1842.	3.8	11
72	Nanorobotic Testing to Assess the Stiffness Properties of Nanopaper. IEEE Transactions on Robotics, 2014, 30, 115-119.	7.3	11

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73	Moisture induced softening and swelling of natural cellulose fibres in composite applications. IOP Conference Series: Materials Science and Engineering, 2016, 139, 012003.	0.3	11
74	Mechanistic study of microstructural deformation and stress in steam-exploded softwood. Wood Science and Technology, 2017, 51, 447-462.	1.4	11
75	Allyloxy-modified starch with low degree of substitution for fiber reinforced thermoset starch composites. Composites Science and Technology, 2011, 71, 520-527.	3.8	9
76	Comparison of test methods estimating the stiffness of ultrathin coatings. Journal of Coatings Technology Research, 2018, 15, 743-752.	1.2	9
77	Damage shielding mechanisms in hierarchical composites in nature with potential for design of tougher structural materials. Royal Society Open Science, 2019, 6, 181733.	1.1	9
78	Experimental and numerical investigation on shear banding during nanomachining of an amorphous glassy polymer. International Journal of Mechanical Sciences, 2019, 151, 13-21.	3.6	9
79	Parametric elastic analysis of coupled helical coils for tubular implant applications: Experimental characterization and numerical analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 29, 462-469.	1.5	8
80	Assessing local yield stress and fracture toughness of carbon nanotube poly(methyl methacrylate) composite by nanosectioning. Composites Science and Technology, 2017, 153, 95-102.	3.8	8
81	Comparison of experimental testing and finite element modelling of a replica of a section of the Vasa warship to identify the behaviour of structural joints. Engineering Structures, 2017, 147, 62-76.	2.6	8
82	Experimental and numerical analysis of cellulosic insulation failures of continuously transposed conductors under short circuits and thermal ageing in power transformers. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 325-333.	1.8	8
83	Fatigue of thermoplastic composites. , 2003, , 314-338.		6
84	Contribution of wood fiber hygroexpansion to moisture induced thickness swelling of composite plates. Polymer Composites, 2010, 31, 762-771.	2.3	6
85	Bulk composites from microfibrillated cellulose-reinforced thermoset starch made from enzymatically degraded allyl glycidyl ether-modified starch. Journal of Composite Materials, 2012, 46, 3201-3209.	1.2	6
86	Mechanical performance of yew (<i>Taxus baccata</i> L.) from a longbow perspective. Holzforschung, 2013, 67, 763-770.	0.9	6
87	Analysis of the micromechanical deformation in pressboard performed by X-ray microtomography. , 2015, , .		6
88	A micro-computed tomography investigation of the breakdown paths in mica/epoxy machine insulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 1553-1559.	1.8	6
89	The effects of voids in quasi-static indentation of resin-infused reinforced polymers. Journal of Composite Materials, 2019, 53, 4399-4410.	1.2	6
90	Homogeneous and Localized Deformation in Poly(Methyl Methacrylate) Nanocutting. Nanomanufacturing and Metrology, 2019, 2, 45-55.	1.5	6

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91	Transverse ridge cracking in tensile fragmentation tests of thin brittle coatings on polymer substrates. Surface and Coatings Technology, 2020, 382, 125025.	2.2	6
92	Elastic models coupling the cellulose nanofibril to the macroscopic film level. RSC Advances, 2015, 5, 58091-58099.	1.7	5
93	Evaluation of displacements by means of 3D laser scanning in a mechanically loaded replica of a hull section of the Vasa ship. Digital Applications in Archaeology and Cultural Heritage, 2018, 11, e00085.	0.9	5
94	Creep in oak material from the Vasa ship: verification of linear viscoelasticity and identification of stress thresholds. European Journal of Wood and Wood Products, 2020, 78, 1095-1103.	1.3	5
95	Full scale finite element modelling and analysis of the 17th-century warship Vasa: A methodological approach and preliminary results. Engineering Structures, 2021, 231, 111765.	2.6	5
96	Effects of barrelling during axial compressive tests of cubic samples with isotropic, transversely isotropic and orthotropic elastic properties. Composites Science and Technology, 2016, 137, 1-8.	3.8	5
97	Relaxation properties of particle filled coatings: Experimental study and modelling of a screw joint. Progress in Organic Coatings, 2006, 55, 112-118.	1.9	4
98	Equivalence of J Integral and Stress Intensity Factor Approaches for Large Scale Bridging Problems. International Journal of Fracture, 2000, 104, 31-36.	1.1	3
99	Estimation of axial stiffness of plant fibres from compaction of non-woven mats. Measurement Science and Technology, 2014, 25, 035601.	1.4	3
100	Energy-release rates and opening of cracks in thin barrier coatings on polymer substrates subjected to tensile loading. Engineering Fracture Mechanics, 2020, 235, 107151.	2.0	3
101	Effect of nanosectioning on surface features and stiffness of an amorphous glassy polymer. Polymer Engineering and Science, 2018, 58, 1849-1857.	1.5	2
102	Elastic properties of rhombic mesh structures based on computational homogenisation. Engineering Structures, 2018, 172, 66-75.	2.6	2
103	Prediction of loss of barrier properties in cracked thin coatings on polymer substrates subjected to tensile strain. Surface and Coatings Technology, 2021, 426, 127746.	2.2	2
104	An Experimental Investigation of the Relationship between Molecular Structure and Length Scales in Inelastic Deformation of an Amorphous Thermoplastic. , 2006, , 143-150.		1
105	Micromechanical modelling of woodâ€“polymer composites. , 2008, , 118-141.		0
106	Thermal elastomer composites for soft transducers. , 2015, , .		0