Cordt Zollfrank

List of Publications by Year
in descending order

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76	2,211	236925	243625
papers	citations	25	44
		h-index	g-index

82	82	82	2895
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Decomposition and carbonisation of wood biopolymersâ€"a microstructural study of softwood pyrolysis. Carbon, 2005, 43, 53-66.	10.3	279
2	A Novel Concept for Selfâ€Reporting Materials: Stress Sensitive Photoluminescence in ZnO Tetrapod Filled Elastomers. Advanced Materials, 2013, 25, 1342-1347.	21.0	162
3	Antimicrobial activity of transition metal acid MoO3 prevents microbial growth on material surfaces. Materials Science and Engineering C, 2012, 32, 47-54.	7.3	125
4	Microstructure and phase morphology of wood derived biomorphous SiSiC-ceramics. Journal of the European Ceramic Society, 2004, 24, 495-506.	5.7	106
5	Biomorphous SiOC/C-ceramic composites from chemically modified wood templates. Journal of the European Ceramic Society, 2004, 24, 479-487.	5.7	102
6	Biomimetics and its tools. Bioinspired, Biomimetic and Nanobiomaterials, 2017, 6, 53-66.	0.9	89
7	Lignin/Chitin Films and Their Adsorption Characteristics for Heavy Metal Ions. ACS Sustainable Chemistry and Engineering, 2018, 6, 6965-6973.	6.7	64
8	Bioinspired Design of SrAl₂O₄:Eu²⁺Phosphor. Advanced Functional Materials, 2009, 19, 599-603.	14.9	52
9	Natural Polymers from Biomass Resources as Feedstocks for Thermoplastic Materials. Macromolecular Materials and Engineering, 2019, 304, 1800760.	3.6	50
10	Moistureâ€Driven Ceramic Bilayer Actuators from a Biotemplating Approach. Advanced Materials, 2016, 28, 5235-5240.	21.0	48
11	Biobased chiral semi-crystalline or amorphous high-performance polyamides and their scalable stereoselective synthesis. Nature Communications, 2020, 11, 509.	12.8	47
12	3D printing of Al2O3/Cuâ€"O interpenetrating phase composite. Journal of Materials Science, 2011, 46, 1203-1210.	3.7	44
13	Development of the Fibrillar and Microfibrillar Structure During Biomimetic Mineralization of Wood. Advanced Functional Materials, 2013, 23, 1265-1272.	14.9	43
14	Life cycle assessment of microalgae products: State of the art and their potential for the production of polylactid acid. Journal of Cleaner Production, 2019, 213, 1299-1312.	9.3	43
15	Biomimetic mineralisation of apatites on Ca2+ activated cellulose templates. Materials Science and Engineering C, 2007, 27, 1-7.	7.3	42
16	Recent Progress in the Replication of Hierarchical Biological Tissues. Advanced Functional Materials, 2013, 23, 4408-4422.	14.9	39
17	Cellulose for Light Manipulation: Methods, Applications, and Prospects. Advanced Energy Materials, 2021, 11, 2003866.	19.5	38
18	Luminescent silica nanotubes and nanowires: Preparation from cellulose whisker templates and investigation of irradiation-induced luminescence. Journal of Materials Research, 2009, 24, 1709-1715.	2.6	37

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19	Silica replication of the hierarchical structure of wood with nanometer precision. Journal of Materials Research, 2011, 26, 1193-1202.	2.6	37
20	Tailored Disorder in Photonics: Learning from Nature. Advanced Optical Materials, 2021, 9, 2100787.	7.3	37
21	Cellulose and chitin composite materials from an ionic liquid and a green co-solvent. Carbohydrate Polymers, 2018, 192, 159-165.	10.2	36
22	Anodic TiO2 nanotube layers electrochemically filled with MoO3 and their antimicrobial properties. Biointerphases, 2011, 6, 16-21.	1.6	34
23	Effects of high-lignin-loading on thermal, mechanical, and morphological properties of bioplastic composites. Composite Structures, 2018, 189, 349-356.	5.8	32
24	Cellulose-biotemplated silica nanowires coated with a dense gold nanoparticle layer. Materials Chemistry and Physics, 2011, 129, 19-22.	4.0	30
25	What Do We Learn from Good Practices of Biologically Inspired Design in Innovation?. Applied Sciences (Switzerland), 2019, 9, 650.	2.5	30
26	Micromechanics and ultrastructure of pyrolysed softwood cell walls. Acta Biomaterialia, 2010, 6, 4345-4351.	8.3	26
27	Ultrastructural development of the softwood cell wall during pyrolysis. Holzforschung, 2009, 63, .	1.9	25
28	Life-cycle assessment and geospatial analysis of integrating microalgae cultivation into a regional economy. Journal of Cleaner Production, 2020, 243, 118630.	9.3	24
29	Mineralization of Calcium Carbonates in Cellulose Gel Membranes. European Journal of Inorganic Chemistry, 2012, 2012, 5192-5198.	2.0	23
30	Carbon auto-doping improves photocatalytic properties of biotemplated ceramics. Applied Catalysis B: Environmental, 2011, 103, 240-245.	20.2	21
31	Biotemplating of inorganic functional materials from polysaccharides. Bioinspired, Biomimetic and Nanobiomaterials, 2012, 1, 13-25.	0.9	21
32	Enhancement of the antimicrobial properties of orthorhombic molybdenum trioxide by thermal induced fracturing of the hydrates. Materials Science and Engineering C, 2016, 58, 1064-1070.	7.3	20
33	Enabling direct laser writing of cellulose-based submicron architectures. Cellulose, 2018, 25, 6031-6039.	4.9	19
34	Polymorphs of molybdenum trioxide as innovative antimicrobial materials. Surface Innovations, 2013, 1, 202-208.	2.3	17
35	Integrated biorefinery concept for grass silage using a combination of adapted pulping methods for advanced saccharification and extraction of lignin. Bioresource Technology, 2016, 216, 462-470.	9.6	17
36	Biomimetics: teaching the tools of the trade. FEBS Open Bio, 2020, 10, 2250-2267.	2.3	17

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37	Nitrogen-substituted TiO2: investigation on the photocatalytic activity in the visible light range. Journal of Materials Science, 2009, 44, 6110-6116.	3.7	16
38	Celluloseâ€Based Biotemplated Silica Structuring. Advanced Engineering Materials, 2014, 16, 699-712.	3.5	16
39	Spatially resolved luminescence properties of ZnO tetrapods. Journal of Materials Science, 2007, 42, 6325-6330.	3.7	15
40	Biomimetic Random Lasers with Tunable Spatial and Temporal Coherence. Advanced Optical Materials, 2016, 4, 1998-2003.	7.3	15
41	Microstructure of alumina reinforced with tungsten carbide. Journal of Materials Science, 2006, 41, 3299-3302.	3.7	14
42	Fabrication of three-dimensional photonic crystals with tunable photonic properties by biotemplating. Photonics and Nanostructures - Fundamentals and Applications, 2012, 10, 516-522.	2.0	14
43	Bioinspired material surfaces â€“ Science or engineering?. Scripta Materialia, 2014, 74, 3-8.	5.2	14
44	Pore characteristics and mechanical properties of silica templated by wood. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 160-168.	0.9	14
45	Replication of wood into biomorphous nanocrystalline Y2O3:Eu3+ phosphor materials. Wood Science and Technology, 2010, 44, 547-560.	3.2	13
46	Molecular and supramolecular templating of silicaâ€based nanotubes and introduction of metal nanowires. Physica Status Solidi (B): Basic Research, 2010, 247, 2401-2411.	1.5	13
47	Transparent cellulose sheets as synthesis matrices for inorganic functional particles. Carbohydrate Polymers, 2012, 87, 257-264.	10.2	13
48	Fabrication of Cellulose-Based Biopolymer Optical Fibers and Their Theoretical Attenuation Limit. Biomacromolecules, 2021, 22, 3297-3312.	5.4	12
49	The pomelo peel and derived nanoscale-precision gradient silica foams. Bioinspired, Biomimetic and Nanobiomaterials, 2012, 1, 117-122.	0.9	11
50	Fabrication of Silicon Carbide Micropillar Arrays from Polycarbosilanes. Journal of the American Ceramic Society, 2010, 93, 3929-3934.	3.8	10
51	The photocatalytic properties of Tiâ€“Mo oxides prepared by a simple solâ€“gel route. Journal of Sol-Gel Science and Technology, 2013, 66, 112-119.	2.4	10
52	Structures of Mixed-Tacticity Polyhydroxybutyrates. Macromolecules, 2018, 51, 5001-5010.	4.8	10
53	Directed photoluminescent emission of ZnO tetrapods on biotemplated Al2O3. Optical Materials, 2013, 36, 562-567.	3.6	9
54	Innovative Development in Antimicrobial Inorganic Materials. Recent Patents on Materials Science, 2014, 7, 26-36.	0.5	9

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55	Gas Phase Processing of Porous, Biomorphous TiC-Ceramics. Key Engineering Materials, 2004, 264-268, 2227-2230.	0.4	8
56	Noble metal nanoparticles on biotemplated nanowires. Bioinspired, Biomimetic and Nanobiomaterials, 2012, 1, 95-100.	0.9	8
57	Preparation of CaCO₃ and CaO Replicas Retaining the Hierarchical Structure of SpruceWood. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2013, 68, 533-538.	0.7	8
58	Experimental study on the actuation and fatigue behavior of the biopolymeric material Cottonid. Materials Today: Proceedings, 2019, 7, 476-483.	1.8	8
59	Chemistry and water-repelling properties of phenyl-incorporating wood composites. Holzforschung, 2013, 67, 931-940.	1.9	7
60	Electrically-Conductive Sub-Micron Carbon Particles from Lignin: Elucidation of Nanostructure and Use as Filler in Cellulose Nanopapers. Nanomaterials, 2018, 8, 1055.	4.1	7
61	Passive and active mechanical properties of biotemplated ceramics revisited. Bioinspiration and Biomimetics, 2016, 11, 065001.	2.9	6
62	Dataset on the structural characterization of organosolv lignin obtained from ensiled Poaceae grass and load-dependent molecular weight changes during thermoplastic processing. Data in Brief, 2018, 17, 647-652.	1.0	6
63	Mechanical and Thermal Properties of Mixed-Tacticity Polyhydroxybutyrates and Their Association with Iso- and Atactic Chain Segment Length Distributions. Macromolecules, 2019, 52, 5407-5418.	4.8	6
64	Fabrication of 3D-printed hygromorphs based on different cellulosic fillers. Functional Composite Materials, 2021, 2, .	1.4	6
65	Life cycle assessment with parameterised inventory to derive target values for process parameters of microalgae biorefineries. Algal Research, 2021, 57, 102352.	4.6	6
66	A facile route to diatoms decorated with gold nanoparticles and their optical properties. Bioinspired, Biomimetic and Nanobiomaterials, 2019, 8, 81-85.	0.9	4
67	Enhanced C2 and C3 Product Selectivity in Electrochemical CO2 Reduction on Carbon-Doped Copper Oxide Catalysts Prepared by Deep Eutectic Solvent Calcination. Catalysts, 2021, 11, 542.	3.5	4
68	Modeling the Compressive Behavior of Anisotropic, Nanometerâ€Scale Structured Silica. Advanced Engineering Materials, 2019, 21, 1801097.	3.5	3
69	Pyrolysis of Deep Eutectic Solvents for the Preparation of Supported Copper Electrocatalysts. ChemistrySelect, 2020, 5, 11714-11720.	1.5	3
70	Archaeo-inspired material synthesis: sustainable tackifiers and adhesives from birch bark. Green Materials, 2018, 6, 157-164.	2.1	2
71	Continuous Synthesis and Application of Novel, Archaeoinspired Tackifiers from Birch Bark Waste. ACS Sustainable Chemistry and Engineering, 2019, 7, 13157-13166.	6.7	2
72	Determining paracrystallinity in mixed-tacticity polyhydroxybutyrates. Journal of Applied Crystallography, 2021, 54, 217-227.	4.5	2

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73	Free Volumes and GrÃ¼neisen Parameters in Mixedâ€Tacticity Polyhydroxybutyrates. Macromolecular Chemistry and Physics, 2021, 222, 2100087.	2.2	1
74	Block Copolysaccharides from Methylated and Acetylated Cellulose and Starch. Biomacromolecules, 2022, 23, 2280-2289.	5.4	1
75	Light-diffractive patterning of Porphyridium purpureum. Photochemical and Photobiological Sciences, 2020, 19, 515-523.	2.9	0
76	Tuneable material properties of Organosolv lignin biocomposites in response to heat and shear forces. European Polymer Journal, 2021, 148, 110359.	5.4	0