

Cordt Zollfrank

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

2,211
citations

236925

25
h-index

243625

44
g-index

82
all docs

82
docs citations

82
times ranked

2895
citing authors

#	ARTICLE	IF	CITATIONS
1	Block Copolysaccharides from Methylated and Acetylated Cellulose and Starch. <i>Biomacromolecules</i> , 2022, 23, 2280-2289.	5.4	1
2	Fabrication of 3D-printed hygromorphs based on different cellulosic fillers. <i>Functional Composite Materials</i> , 2021, 2, .	1.4	6
3	Determining paracrystallinity in mixed-tacticity polyhydroxybutyrates. <i>Journal of Applied Crystallography</i> , 2021, 54, 217-227.	4.5	2
4	Cellulose for Light Manipulation: Methods, Applications, and Prospects. <i>Advanced Energy Materials</i> , 2021, 11, 2003866.	19.5	38
5	Enhanced C2 and C3 Product Selectivity in Electrochemical CO2 Reduction on Carbon-Doped Copper Oxide Catalysts Prepared by Deep Eutectic Solvent Calcination. <i>Catalysts</i> , 2021, 11, 542.	3.5	4
6	Tuneable material properties of Organosolv lignin biocomposites in response to heat and shear forces. <i>European Polymer Journal</i> , 2021, 148, 110359.	5.4	0
7	Tailored Disorder in Photonics: Learning from Nature. <i>Advanced Optical Materials</i> , 2021, 9, 2100787.	7.3	37
8	Fabrication of Cellulose-Based Biopolymer Optical Fibers and Their Theoretical Attenuation Limit. <i>Biomacromolecules</i> , 2021, 22, 3297-3312.	5.4	12
9	Life cycle assessment with parameterised inventory to derive target values for process parameters of microalgae biorefineries. <i>Algal Research</i> , 2021, 57, 102352.	4.6	6
10	Free Volumes and Gr ^{1/4} neisen Parameters in Mixed-tacticity Polyhydroxybutyrates. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2100087.	2.2	1
11	Life-cycle assessment and geospatial analysis of integrating microalgae cultivation into a regional economy. <i>Journal of Cleaner Production</i> , 2020, 243, 118630.	9.3	24
12	Pyrolysis of Deep Eutectic Solvents for the Preparation of Supported Copper Electrocatalysts. <i>ChemistrySelect</i> , 2020, 5, 11714-11720.	1.5	3
13	Biomimetics: teaching the tools of the trade. <i>FEBS Open Bio</i> , 2020, 10, 2250-2267.	2.3	17
14	Light-diffractive patterning of <i>Porphyridium purpureum</i> . <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 515-523.	2.9	0
15	Biobased chiral semi-crystalline or amorphous high-performance polyamides and their scalable stereoselective synthesis. <i>Nature Communications</i> , 2020, 11, 509.	12.8	47
16	Mechanical and Thermal Properties of Mixed-Tacticity Polyhydroxybutyrates and Their Association with Iso- and Atactic Chain Segment Length Distributions. <i>Macromolecules</i> , 2019, 52, 5407-5418.	4.8	6
17	Continuous Synthesis and Application of Novel, Archaeo-inspired Tackifiers from Birch Bark Waste. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 13157-13166.	6.7	2
18	Experimental study on the actuation and fatigue behavior of the biopolymeric material Cottonid. <i>Materials Today: Proceedings</i> , 2019, 7, 476-483.	1.8	8

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19	What Do We Learn from Good Practices of Biologically Inspired Design in Innovation?. Applied Sciences (Switzerland), 2019, 9, 650.	2.5	30
20	Natural Polymers from Biomass Resources as Feedstocks for Thermoplastic Materials. Macromolecular Materials and Engineering, 2019, 304, 1800760.	3.6	50
21	Modeling the Compressive Behavior of Anisotropic, Nanometerâ€Scale Structured Silica. Advanced Engineering Materials, 2019, 21, 1801097.	3.5	3
22	A facile route to diatoms decorated with gold nanoparticles and their optical properties. Bioinspired, Biomimetic and Nanobiomaterials, 2019, 8, 81-85.	0.9	4
23	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
24	Lignin/Chitin Films and Their Adsorption Characteristics for Heavy Metal Ions. ACS Sustainable Chemistry and Engineering, 2018, 6, 6965-6973.	6.7	64
25	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
26	Effects of high-lignin-loading on thermal, mechanical, and morphological properties of bioplastic composites. Composite Structures, 2018, 189, 349-356.	5.8	32
27	Cellulose and chitin composite materials from an ionic liquid and a green co-solvent. Carbohydrate Polymers, 2018, 192, 159-165.	10.2	36
28	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
29	Archaeo-inspired material synthesis: sustainable tackifiers and adhesives from birch bark. Green Materials, 2018, 6, 157-164.	2.1	2
30	Enabling direct laser writing of cellulose-based submicron architectures. Cellulose, 2018, 25, 6031-6039.	4.9	19
31	Structures of Mixed-Tacticity Polyhydroxybutyrates. Macromolecules, 2018, 51, 5001-5010.	4.8	10
32	Biomimetics and its tools. Bioinspired, Biomimetic and Nanobiomaterials, 2017, 6, 53-66.	0.9	89
33	Moistureâ€Driven Ceramic Bilayer Actuators from a Biotemplating Approach. Advanced Materials, 2016, 28, 5235-5240.	21.0	48
34	Passive and active mechanical properties of biotemplated ceramics revisited. Bioinspiration and Biomimetics, 2016, 11, 065001.	2.9	6
35	Biomimetic Random Lasers with Tunable Spatial and Temporal Coherence. Advanced Optical Materials, 2016, 4, 1998-2003.	7.3	15
36	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

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37	Enhancement of the antimicrobial properties of orthorhombic molybdenum trioxide by thermal induced fracturing of the hydrates. <i>Materials Science and Engineering C</i> , 2016, 58, 1064-1070.	7.3	20
38	Innovative Development in Antimicrobial Inorganic Materials. <i>Recent Patents on Materials Science</i> , 2014, 7, 26-36.	0.5	9
39	Cellulose-Based Biotemplated Silica Structuring. <i>Advanced Engineering Materials</i> , 2014, 16, 699-712.	3.5	16
40	Bioinspired material surfaces – Science or engineering?. <i>Scripta Materialia</i> , 2014, 74, 3-8.	5.2	14
41	Pore characteristics and mechanical properties of silica templated by wood. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2014, 3, 160-168.	0.9	14
42	A Novel Concept for Self-Reporting Materials: Stress Sensitive Photoluminescence in ZnO Tetrapod Filled Elastomers. <i>Advanced Materials</i> , 2013, 25, 1342-1347.	21.0	162
43	Directed photoluminescent emission of ZnO tetrapods on biotemplated Al ₂ O ₃ . <i>Optical Materials</i> , 2013, 36, 562-567.	3.6	9
44	The photocatalytic properties of Ti-Mo oxides prepared by a simple sol-gel route. <i>Journal of Sol-Gel Science and Technology</i> , 2013, 66, 112-119.	2.4	10
45	Development of the Fibrillar and Microfibrillar Structure During Biomimetic Mineralization of Wood. <i>Advanced Functional Materials</i> , 2013, 23, 1265-1272.	14.9	43
46	Recent Progress in the Replication of Hierarchical Biological Tissues. <i>Advanced Functional Materials</i> , 2013, 23, 4408-4422.	14.9	39
47	Preparation of CaCO ₃ and CaO Replicas Retaining the Hierarchical Structure of Spruce Wood. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2013, 68, 533-538.	0.7	8
48	Chemistry and water-repelling properties of phenyl-incorporating wood composites. <i>Holzforschung</i> , 2013, 67, 931-940.	1.9	7
49	Polymorphs of molybdenum trioxide as innovative antimicrobial materials. <i>Surface Innovations</i> , 2013, 1, 202-208.	2.3	17
50	Noble metal nanoparticles on biotemplated nanowires. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2012, 1, 95-100.	0.9	8
51	Biotemplating of inorganic functional materials from polysaccharides. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2012, 1, 13-25.	0.9	21
52	The pomelo peel and derived nanoscale-precision gradient silica foams. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2012, 1, 117-122.	0.9	11
53	Mineralization of Calcium Carbonates in Cellulose Gel Membranes. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 5192-5198.	2.0	23
54	Fabrication of three-dimensional photonic crystals with tunable photonic properties by biotemplating. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2012, 10, 516-522.	2.0	14

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55	Transparent cellulose sheets as synthesis matrices for inorganic functional particles. Carbohydrate Polymers, 2012, 87, 257-264.	10.2	13
56	Antimicrobial activity of transition metal acid MoO ₃ prevents microbial growth on material surfaces. Materials Science and Engineering C, 2012, 32, 47-54.	7.3	125
57	Anodic TiO ₂ nanotube layers electrochemically filled with MoO ₃ and their antimicrobial properties. Biointerphases, 2011, 6, 16-21.	1.6	34
58	Cellulose-biotemplated silica nanowires coated with a dense gold nanoparticle layer. Materials Chemistry and Physics, 2011, 129, 19-22.	4.0	30
59	3D printing of Al ₂ O ₃ /Cu ²⁺ O interpenetrating phase composite. Journal of Materials Science, 2011, 46, 1203-1210.	3.7	44
60	Carbon auto-doping improves photocatalytic properties of biotemplated ceramics. Applied Catalysis B: Environmental, 2011, 103, 240-245.	20.2	21
61	Silica replication of the hierarchical structure of wood with nanometer precision. Journal of Materials Research, 2011, 26, 1193-1202.	2.6	37
62	Replication of wood into biomorphous nanocrystalline Y ₂ O ₃ :Eu ³⁺ phosphor materials. Wood Science and Technology, 2010, 44, 547-560.	3.2	13
63	Micromechanics and ultrastructure of pyrolysed softwood cell walls. Acta Biomaterialia, 2010, 6, 4345-4351.	8.3	26
64	Molecular and supramolecular templating of silica-based nanotubes and introduction of metal nanowires. Physica Status Solidi (B): Basic Research, 2010, 247, 2401-2411.	1.5	13
65	Fabrication of Silicon Carbide Micropillar Arrays from Polycarbosilanes. Journal of the American Ceramic Society, 2010, 93, 3929-3934.	3.8	10
66	Ultrastructural development of the softwood cell wall during pyrolysis. Holzforschung, 2009, 63, .	1.9	25
67	Bioinspired Design of SrAl ₂ O ₄ :Eu ²⁺ Phosphor. Advanced Functional Materials, 2009, 19, 599-603.	14.9	52
68	Nitrogen-substituted TiO ₂ : investigation on the photocatalytic activity in the visible light range. Journal of Materials Science, 2009, 44, 6110-6116.	3.7	16
69	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
70	Biomimetic mineralisation of apatites on Ca ²⁺ activated cellulose templates. Materials Science and Engineering C, 2007, 27, 1-7.	7.3	42
71	Spatially resolved luminescence properties of ZnO tetrapods. Journal of Materials Science, 2007, 42, 6325-6330.	3.7	15
72	Microstructure of alumina reinforced with tungsten carbide. Journal of Materials Science, 2006, 41, 3299-3302.	3.7	14

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73	Decomposition and carbonisation of wood biopolymers—a microstructural study of softwood pyrolysis. Carbon, 2005, 43, 53-66.	10.3	279
74	Gas Phase Processing of Porous, Biomorphous TiC-Ceramics. Key Engineering Materials, 2004, 264-268, 2227-2230.	0.4	8
75	Microstructure and phase morphology of wood derived biomorphous SiSiC-ceramics. Journal of the European Ceramic Society, 2004, 24, 495-506.	5.7	106
76	Biomorphous SiOC/C-ceramic composites from chemically modified wood templates. Journal of the European Ceramic Society, 2004, 24, 479-487.	5.7	102