JÃ¶rg C Tiller

List of Publications by Year
in descending order

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111	5,943	57758	74163
papers	citations	44 h-index	75 g-index

114	114	114	6075
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Amphiphilic polymer conetworks with ideal and non-ideal swelling behavior demonstrated by small angle X-ray scattering. Polymer, 2022, 242, 124582.	3.8	6
2	Enzymeâ€induced Ferrification of Hydrogels for Toughening of Functional Inorganic Compounds. Macromolecular Materials and Engineering, 2022, 307, .	3.6	3
3	Smallâ€Angle Xâ€Ray Scattering Measurements on Amphiphilic Polymer Conetworks Swollen in Orthogonal Solvents. Macromolecular Chemistry and Physics, 2021, 222, 2000292.	2.2	3
4	Enzyme-induced mineralization of hydrogels with amorphous calcium carbonate for fast synthesis of ultrastiff, strong and tough organicâ€“inorganic double networks. Journal of Materials Science, 2021, 56, 15299-15312.	3.7	19
5	Insights in the Thermal Volume Transition of Poly(2â€oxazoline) Hydrogels. Macromolecular Chemistry and Physics, 2021, 222, 2100157.	2.2	5
6	Conjugates of Ciprofloxacin and Amphiphilic Block Copoly(2-alkyl-2-oxazolines)s Overcome Efflux Pumps and Are Active against CIP-Resistant Bacteria. Molecular Pharmaceutics, 2021, 18, 3532-3543.	4.6	13
7	Enhanced dissolution of silver nanoparticles in a physical mixture with platinum nanoparticles based on the sacrificial anode effect. Nanotechnology, 2020, 31, 055703.	2.6	8
8	Poly(2â€oxazoline)s with a 2,2â€²â€iminodiacetate End Group Inhibit and Stabilize Laccase. ChemBioChem, 2020, 21, 874-882.	2.6	5
9	Fast-Acting Antibacterial, Self-Deactivating Polyionene Esters. ACS Applied Materials & Interfaces, 2020, 12, 21201-21209.	8.0	18
10	Realizing a shape-memory effect for synthetic rubber (IR). Polymer, 2020, 203, 122788.	3.8	5
11	Full Thermal Switching of Enzymes by Thermoresponsive Poly(2â€oxazoline)â€Based Enzyme Inhibitors. Chemistry - A European Journal, 2020, 26, 13367-13371.	3.3	3
12	Forming amorphous calcium carbonate within hydrogels by enzyme-induced mineralization in the presence of N-(phosphonomethyl)glycine. Journal of Colloid and Interface Science, 2020, 579, 357-368.	9.4	13
13	Investigation of the swelling behavior of hydrogels derived from highâ€molecularâ€weight poly(2â€ethylâ€2â€oxazoline). Journal of Polymer Science, 2020, 58, 747-755.	3.8	7
14	Thermoâ€/moistureâ€responsive shapeâ€memory effect of poly(2â€ethylâ€2â€oxazoline) networks. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1053-1061.	2.1	12
15	Telechelic biocidal poly(2-oxazoline)s and polycations. European Polymer Journal, 2019, 120, 109233.	5.4	19
16	Tunable Swelling Kinetics of Shape-Memory Poly(2-Ethyl-2-Oxazoline)-Networks. Materials Today: Proceedings, 2019, 16, 1554-1559.	1.8	1
17	Shape Memory Effect, Shock- and Energy-Absorption Capability of Critically Cross-Linked Syndiotactic Polypropylene. Materials Today: Proceedings, 2019, 16, 1531-1537.	1.8	3
18	Investigations on the thermoresponsive behavior of copoly(2-oxazoline)s in water. Polymer, 2019, 175, 294-301.	3.8	17

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19	Bimetallic silverâ€“platinum nanoparticles with combined osteo-promotive and antimicrobial activity. Nanotechnology, 2019, 30, 305101.	2.6	34
20	Shockâ€•and Energyâ€Absorption Capability of Coldâ€Programmable Shape Memory Polymers. Macromolecular Chemistry and Physics, 2019, 220, 1800274.	2.2	3
21	Poly(2â€oxazoline)s terminated with 2,2â€²â€imino diacetic acid form noncovalent polymerâ€“enzyme conjugates that are highly active in organic solvents. Biotechnology and Bioengineering, 2019, 116, 272-282.	3.3	10
22	Telechelic, Antimicrobial Hydrophilic Polycations with Two Modes of Action. Macromolecular Bioscience, 2018, 18, e1700389.	4.1	8
23	Entropically driven Polymeric Enzyme Inhibitors by Endâ€Group directed Conjugation. Chemistry - A European Journal, 2018, 24, 4523-4527.	3.3	17
24	Crosslinking of Semiaromatic Polyesters toward Highâ€Temperature Shape Memory Polymers with Full Recovery. Macromolecular Rapid Communications, 2018, 39, e1700768.	3.9	16
25	Near-Model Amphiphilic Polymer Conetworks Based on Four-Arm Stars of Poly(vinylidene fluoride) and Poly(ethylene glycol): Synthesis and Characterization. Macromolecules, 2018, 51, 2476-2488.	4.8	57
26	A Coating that Combines Lotusâ€Effect and Contactâ€Active Antimicrobial Properties on Silicone. Advanced Functional Materials, 2018, 28, 1801248.	14.9	53
27	Multicore Artificial Metalloenzymes Derived from Acylated Proteins as Catalysts for the Enantioselective Dihydroxylation and Epoxidation of Styrene Derivatives. Chemistry - A European Journal, 2018, 24, 10859-10867.	3.3	7
28	Insights into the Kinetics of the Resistance Formation of Bacteria against Ciprofloxacin Poly(2-methyl-2-oxazoline) Conjugates. Bioconjugate Chemistry, 2018, 29, 2671-2678.	3.6	10
29	Enzymatic mineralization generates ultrastiff and tough hydrogels with tunable mechanics. Nature, 2017, 543, 407-410.	27.8	211
30	Highly active and selective telechelic antimicrobial poly(2-oxazoline) copolymers. Polymer, 2017, 118, 107-115.	3.8	13
31	Cross-Linking of a Hydrophilic, Antimicrobial Polycation toward a Fast-Swelling, Antimicrobial Superabsorber and Interpenetrating Hydrogel Networks with Long Lasting Antimicrobial Properties. ACS Applied Materials & Interfaces, 2017, 9, 36573-36582.	8.0	39
32	Poly(2-oxazoline)â€“Antibiotic Conjugates with Penicillins. Bioconjugate Chemistry, 2017, 28, 2440-2451.	3.6	39
33	Multiaxial Reinforcement of Cross-Linked Isotactic Poly(propylene) upon Uniaxial Stretching. Macromolecular Materials and Engineering, 2017, 302, 1600308.	3.6	5
34	Investigations on â€œnear perfectâ€•poly(2-oxazoline) based amphiphilic polymer conetworks with a crystallizable block. European Polymer Journal, 2017, 88, 562-574.	5.4	16
35	Poly(2â€ethyloxazoline) as matrix for highly active electrospun enzymes in organic solvents. Biotechnology and Bioengineering, 2017, 114, 39-45.	3.3	9
36	Nanoarmored Enzymes for Organic Enzymology. Methods in Enzymology, 2017, 590, 413-444.	1.0	1

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37	Shape memory natural rubber. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1381-1388.	2.1	48
38	Heating Rate Sensitive Multi-Shape Memory Polypropylene: A Predictive Material. ACS Applied Materials & Interfaces, 2016, 8, 13684-13687.	8.0	21
39	Ionically Cross-Linked Shape Memory Polypropylene. Macromolecules, 2016, 49, 6918-6927.	4.8	35
40	Optimization of and Mechanistic Considerations for the Enantioselective Dihydroxylation of Styrene Catalyzed by Osmateâ€Laccaseâ€Poly(2â€Methyloxazoline) in Organic Solvents. ChemCatChem, 2016, 8, 593-599.	3.7	9
41	VOC Sorption in Stretched Cross-Linked Natural Rubber. Industrial & Engineering Chemistry Research, 2016, 55, 7191-7200.	3.7	5
42	THz-Spectroscopy on High Density Polyethylene with Different Crystallinity. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 189-197.	2.2	48
43	Shapeâ€Memory PVDF Exhibiting Switchable Piezoelectricity. Macromolecular Rapid Communications, 2015, 36, 2042-2046.	3.9	21
44	Altering the Triggerâ€Behavior of Programmed Shape Memory Natural Rubber (SMNR) by Solvent Vapor. Macromolecular Materials and Engineering, 2015, 300, 25-30.	3.6	17
45	Nontoxic, Hydrophilic Cationic Polymersâ€"Identified as Class of Antimicrobial Polymers. Macromolecular Bioscience, 2015, 15, 1710-1723.	4.1	56
46	Programming of Shape Memory Natural Rubber for Near-Discrete Shape Transitions. ACS Applied Materials & Interfaces, 2015, 7, 1486-1490.	8.0	38
47	Polymer Enzyme Conjugates as Chiral Ligands for Sharpless Dihydroxylation of Alkenes in Organic Solvents. ChemBioChem, 2015, 16, 83-90.	2.6	28
48	Postâ€Polymerization of Ureaseâ€Induced Calcified, Polymer Hydrogels. Macromolecular Rapid Communications, 2015, 36, 224-230.	3.9	16
49	Chemical Crossâ€linking of Polypropylenes Towards New Shape Memory Polymers. Macromolecular Rapid Communications, 2015, 36, 744-749.	3.9	37
50	Amphiphilic polymer conetworks with defined nanostructure and tailored swelling behavior for exploring the activation of an entrapped lipase in organic solvents. Polymer, 2015, 64, 122-129.	3.8	39
51	Amphiphilic Polymer Conetworks Based on End-Linked â€œCore-Firstâ€•Star Block Copolymers: Structure Formation with Long-Range Order. ACS Macro Letters, 2015, 4, 1163-1168.	4.8	50
52	Conjugation of Ciprofloxacin with Poly(2-oxazoline)s and Polyethylene Glycol via End Groups. Bioconjugate Chemistry, 2015, 26, 1950-1962.	3.6	69
53	A Shapeâ€Adaptive, Antibacterialâ€Coating of Immobilized Quaternaryâ€Ammonium Compounds Tethered on Hyperbranched Polyurea and its Mechanism of Action. Advanced Functional Materials, 2014, 24, 346-355.	14.9	271
54	Environmental Memory of Polymer Networks under Stress. Advanced Materials, 2014, 26, 3441-3444.	21.0	37

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55	Antimicrobial Poly(2â€methyloxazoline)s with Bioswitchable Activity through Satellite Group Modification. Angewandte Chemie - International Edition, 2014, 53, 3830-3834.	13.8	96
56	Telechelic Poly(2-oxazoline)s with a Biocidal and a Polymerizable Terminal as Collagenase Inhibiting Additive for Long-Term Active Antimicrobial Dental Materials. Macromolecular Bioscience, 2014, 14, 1569-1579.	4.1	39
57	Impact of the configuration of a chiral, activating carrier on the enantioselectivity of entrapped lipase from Candida rugosa in cyclohexane. Biotechnology Letters, 2014, 36, 1661-1667.	2.2	10
58	Investigations on the activity of poly(2-oxazoline) enzyme conjugates dissolved in organic solvents. Journal of Biotechnology, 2014, 181, 55-63.	3.8	34
59	Urease-induced calcification of segmented polymer hydrogels â€“ A step towards artificial biomineralization. Acta Biomaterialia, 2014, 10, 3942-3951.	8.3	37
60	Stressâ€induced Stabilization of Crystals in Shape Memory Natural Rubber. Macromolecular Rapid Communications, 2013, 34, 180-184.	3.9	57
61	Amphiphilic Polymer Conetworks Based on End Group Cross-Linked Poly(2-oxazoline) Homo- and Triblock Copolymers. Macromolecules, 2013, 46, 3234-3245.	4.8	50
62	Solvent-Sensitive Reversible Stress-Response of Shape Memory Natural Rubber. ACS Applied Materials & Interfaces, 2013, 5, 3504-3507.	8.0	86
63	Long-term active antimicrobial coatings for surgical sutures based on silver nanoparticles and hyperbranched polylysine. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 1589-1600.	3.5	54
64	Recoverable strain storage capacity of shape memory polyethylene. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1033-1040.	2.1	43
65	Tunable Multipleâ€Shape Memory Polyethylene Blends. Macromolecular Chemistry and Physics, 2013, 214, 2725-2732.	2.2	61
66	Investigations on diffusion limitations of biocatalyzed reactions in amphiphilic polymer conetworks in organic solvents. Biotechnology and Bioengineering, 2013, 110, 2333-2342.	3.3	43
67	Shapeâ€Memory Natural Rubber: An Exceptional Material for Strain and Energy Storage. Macromolecular Chemistry and Physics, 2013, 214, 912-923.	2.2	97
68	Starâ€Shaped Poly(styrene)â€blockâ€<scp>P</scp>oly(4â€vinylâ€<scp>N</scp>â€methylpyridiniumiodide) for Semipermanent Antimicrobial Coatings. Macromolecular Bioscience, 2013, 13, 1447-1455.	4.1	23
69	Organosoluble enzyme conjugates with poly(2-oxazoline)s via pyromellitic acid dianhydride. Journal of Biotechnology, 2012, 159, 195-203.	3.8	31
70	Impact of Functional Satellite Groups on the Antimicrobial Activity and Hemocompatibility of Telechelic Poly(2-methyloxazoline)s. Biomacromolecules, 2012, 13, 165-172.	5.4	49
71	Conventional and microwave-assisted synthesis of hyperbranched and highly branched polylysine towards amphiphilic coreâ€“shell nanocontainers for metal nanoparticles. Polymer, 2012, 53, 4623-4630.	3.8	12
72	Antimicrobial Polymers in Solution and on Surfaces: Overview and Functional Principles. Polymers, 2012, 4, 46-71.	4.5	618

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73	Wellâ€Defined Amphiphilic Poly(2â€oxazoline) ABAâ€Triblock Copolymers and Their Aggregation Behavior in Aqueous Solution. Macromolecular Rapid Communications, 2012, 33, 1677-1682.	3.9	29
74	Stressâ€Induced Melting of Crystals in Natural Rubber: a New Way to Tailor the Transition Temperature of Shape Memory Polymers. Macromolecular Rapid Communications, 2012, 33, 1517-1522.	3.9	61
75	Amphiphilic polymer conetworks derived from aqueous solutions for biocatalysis in organic solvents. Polymer, 2012, 53, 701-707.	3.8	57
76	Solidâ^'Solid Interface Adsorption of Proteins and Enzymes in Nanophase-Separated Amphiphilic Conetworks. Biomacromolecules, 2011, 12, 1594-1601.	5.4	33
77	Contactâ€Active Antimicrobial and Potentially Selfâ€Polishing Coatings Based on Cellulose. Macromolecular Bioscience, 2011, 11, 111-121.	4.1	55
78	Mechanistic Considerations on Contactâ€Active Antimicrobial Surfaces with Controlled Functional Group Densities. Macromolecular Bioscience, 2011, 11, 526-534.	4.1	103
79	Ultrahighâ€Aspect Ratio Microfiberâ€Furs as Plantâ€Surface Mimics Derived from Teeth. Advanced Materials, 2011, 23, 3565-3569.	21.0	15
80	Ultrahydrophobic Surfaces: Ultrahighâ€Aspect Ratio Microfiberâ€Furs as Plantâ€Surface Mimics Derived from Teeth (Adv. Mater. 31/2011). Advanced Materials, 2011, 23, 3476-3476.	21.0	0
81	Amphiphilic polymer conetworks as chiral separation membranes. Journal of Membrane Science, 2011, 372, 219-227.	8.2	57
82	Synthesis and characterization of chiral and thermo responsive amphiphilic conetworks. Polymer, 2010, 51, 35-45.	3.8	59
83	Antimicrobial Surfaces. Advances in Polymer Science, 2010, , 193-217.	0.8	63
84	Tensile Creep Measurements of Glassy VOC-Loaded Polymers. Macromolecules, 2010, 43, 8997-9003.	4.8	9
85	Amphiphilic Polymer Conetworks as Matrices for Phase Transfer Reactions. Macromolecular Symposia, 2010, 291-292, 293-301.	0.7	10
86	Amphiphilic Conetworks Based on Endâ€Linked Multiblock Copolymers of Different Numbers of Blocks and Constant Molecular Weight and Composition. Macromolecular Chemistry and Physics, 2009, 210, 942-950.	2.2	14
87	Ways of selective polycondensation of <scp>L</scp>â€lysine towards linear Î±â€•and Îµâ€polyâ€<scp>L</scp>â€lysine. Journal of Polymer Science Part A, 2008, 46, 5053-5063.	2.3	14
88	Amphiphilic conetworks as activating carriers for the enhancement of enzymatic activity in supercritical CO₂. Biotechnology and Bioengineering, 2008, 101, 19-26.	3.3	58
89	Structural Characterization of Glassy and Rubbery Model Anionic Amphiphilic Polymer Conetworks. ACS Symposium Series, 2008, , 286-302.	0.5	2
90	Insights in the Antibacterial Action of Poly(methyloxazoline)s with a Biocidal End Group and Varying Satellite Groups. Biomacromolecules, 2008, 9, 1764-1771.	5.4	92

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91	Coatings for Prevention or Deactivation of Biological Contamination. , 2008, , 1013-1065.		6
92	Synthesis and Characterization of Anionic Amphiphilic Model Conetworks of 2-Butyl-1-Octyl-Methacrylate and Methacrylic Acid:â€‰ Effects of Polymer Composition and Architecture. Langmuir, 2007, 23, 10746-10755.	3.5	74
93	Nanophasic Amphiphilic Conetworks with a Fluorophilic Phase. Macromolecules, 2006, 39, 4386-4394.	4.8	57
94	Nanophase-Separated Amphiphilic Conetworks as Versatile Matrixes for Optical Chemical and Biochemical Sensors. Analytical Chemistry, 2006, 78, 6376-6383.	6.5	59
95	Silver-Based Antimicrobial Coatings. ACS Symposium Series, 2006, , 215-231.	0.5	8
96	Optical biochemical sensor for determining hydroperoxides in nonpolar organic liquids as archetype for sensors consisting of amphiphilic conetworks as immobilisation matrices. Analytical and Bioanalytical Chemistry, 2006, 386, 1273-1283.	3.7	59
97	Contact-Active Antimicrobial Coatings Derived from Aqueous Suspensions. Angewandte Chemie - International Edition, 2006, 45, 6759-6762.	13.8	154
98	Influence of Satellite Groups on Telechelic Antimicrobial Functions of Polyoxazolines. Macromolecular Bioscience, 2005, 5, 149-156.	4.1	109
99	Metallized Organoclays as New Intermediates for Aqueous Nanohybrid Dispersions, Nanohybrid Catalysts and Antimicrobial Polymer Hybrid Nanocomposites. Macromolecular Materials and Engineering, 2005, 290, 875-883.	3.6	62
100	Biodegradable Poly(ester hydrazide)s via Enzymatic Polymerization. Macromolecular Rapid Communications, 2005, 26, 1330-1335.	3.9	6
101	Poly(oxazoline)s with Telechelic Antimicrobial Functions. Biomacromolecules, 2005, 6, 235-243.	5.4	126
102	Nanophase Separated Amphiphilic Conetwork Coatings and Membranes. Macromolecules, 2005, 38, 2431-2438.	4.8	104
103	Amphiphilic Network as Nanoreactor for Enzymes in Organic Solvents. Nano Letters, 2005, 5, 45-48.	9.1	185
104	Nanophase Separated Amphiphilic Microbeads. Macromolecules, 2005, 38, 7536-7539.	4.8	56
105	Increasing the Local Concentration of Drugs by Hydrogel Formation. Angewandte Chemie - International Edition, 2003, 42, 3072-3075.	13.8	218
106	Stabilization of Activity of Oxidoreductases by Their Immobilization onto Special Functionalized Glass and Novel Aminocellulose Film Using Different Coupling Reagents. Biomacromolecules, 2002, 3, 1021-1029.	5.4	57
107	Hybrids of silver nanoparticles with amphiphilic hyperbranched macromolecules exhibiting antimicrobial properties. Chemical Communications, 2002, , 3018-3019.	4.1	329
108	Polymer surfaces derivatized with poly(vinyl-N-hexylpyridinium) kill airborne and waterborne bacteria. Biotechnology and Bioengineering, 2002, 79, 465-471.	3.3	327

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109	Insights into bactericidal action of surface-attached poly(vinyl-N-hexylpyridinium) chains. Biotechnology Letters, 2002, 24, 801-805.	2.2	135
110	Improving biomaterial properties of collagen films by chemical modification. Biotechnology and Bioengineering, 2001, 73, 246-252.	3.3	68
111	Improving the Strength of Ultrastiff Organicâ€“Inorganic Double-Network Hydrogels. Chemistry of Materials, 0, , .	6.7	17