# 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 | Antimicrobial Polymers in Solution and on Surfaces: Overview and Functional Principles. Polymers, 2012, 4, 46-71. | 4.5 | 618 |
| 2 | Hybrids of silver nanoparticles with amphiphilic hyperbranched macromolecules exhibiting antimicrobial properties. Chemical Communications, 2002, , 3018-3019. | 4.1 | 329 |
| 3 | Polymer surfaces derivatized with poly(vinyl-N-hexylpyridinium) kill airborne and waterborne bacteria. Biotechnology and Bioengineering, 2002, 79, 465-471. | 3.3 | 327 |
| 4 | 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 |
| 5 | Increasing the Local Concentration of Drugs by Hydrogel Formation. Angewandte Chemie - International Edition, 2003, 42, 3072-3075. | 13.8 | 218 |
| 6 | Enzymatic mineralization generates ultrastiff and tough hydrogels with tunable mechanics. Nature, 2017, 543, 407-410. | 27.8 | 211 |
| 7 | Amphiphilic Network as Nanoreactor for Enzymes in Organic Solvents. Nano Letters, 2005, 5, 45-48. | 9.1 | 185 |
| 8 | Contact-Active Antimicrobial Coatings Derived from Aqueous Suspensions. Angewandte Chemie - International Edition, 2006, 45, 6759-6762. | 13.8 | 154 |
| 9 | Insights into bactericidal action of surface-attached poly(vinyl-N-hexylpyridinium) chains. Biotechnology Letters, 2002, 24, 801-805. | 2.2 | 135 |
| 10 | Poly(oxazoline)s with Telechelic Antimicrobial Functions. Biomacromolecules, 2005, 6, 235-243. | 5.4 | 126 |
| 11 | Influence of Satellite Groups on Telechelic Antimicrobial Functions of Polyoxazolines. Macromolecular Bioscience, 2005, 5, 149-156. | 4.1 | 109 |
| 12 | Nanophase Separated Amphiphilic Conetwork Coatings and Membranes. Macromolecules, 2005, 38, 2431-2438. | 4.8 | 104 |
| 13 | Mechanistic Considerations on Contactâ€Active Antimicrobial Surfaces with Controlled Functional Group Densities. Macromolecular Bioscience, 2011, 11, 526-534. | 4.1 | 103 |
| 14 | Shapeâ€Memory Natural Rubber: An Exceptional Material for Strain and Energy Storage. Macromolecular Chemistry and Physics, 2013, 214, 912-923. | 2.2 | 97 |
| 15 | Antimicrobial Poly(2â€methyloxazoline)s with Bioswitchable Activity through Satellite Group Modification. Angewandte Chemie - International Edition, 2014, 53, 3830-3834. | 13.8 | 96 |
| 16 | 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 |
| 17 | Solvent-Sensitive Reversible Stress-Response of Shape Memory Natural Rubber. ACS Applied Materials & Interfaces, 2013, 5, 3504-3507. | 8.0 | 86 |
| 18 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Conjugation of Ciprofloxacin with Poly(2-oxazoline)s and Polyethylene Glycol via End Groups. Bioconjugate Chemistry, 2015, 26, 1950-1962. | 3.6 | 69 |
| 20 | Improving biomaterial properties of collagen films by chemical modification. Biotechnology and Bioengineering, 2001, 73, 246-252. | 3.3 | 68 |
| 21 | Antimicrobial Surfaces. Advances in Polymer Science, 2010, , 193-217. | 0.8 | 63 |
| 22 | 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 |
| 23 | 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 |
| 24 | Tunable Multipleâ€Shape Memory Polyethylene Blends. Macromolecular Chemistry and Physics, 2013, 214, 2725-2732. | 2.2 | 61 |
| 25 | Nanophase-Separated Amphiphilic Conetworks as Versatile Matrixes for Optical Chemical and Biochemical Sensors. Analytical Chemistry, 2006, 78, 6376-6383. | 6.5 | 59 |
| 26 | 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 |
| 27 | Synthesis and characterization of chiral and thermo responsive amphiphilic conetworks. Polymer, 2010, 51, 35-45. | 3.8 | 59 |
| 28 | Amphiphilic conetworks as activating carriers for the enhancement of enzymatic activity in supercritical CO<sub>2</sub>. Biotechnology and Bioengineering, 2008, 101, 19-26. | 3.3 | 58 |
| 29 | 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 |
| 30 | Nanophasic Amphiphilic Conetworks with a Fluorophilic Phase. Macromolecules, 2006, 39, 4386-4394. | 4.8 | 57 |
| 31 | Amphiphilic polymer conetworks as chiral separation membranes. Journal of Membrane Science, 2011, 372, 219-227. | 8.2 | 57 |
| 32 | Amphiphilic polymer conetworks derived from aqueous solutions for biocatalysis in organic solvents. Polymer, 2012, 53, 701-707. | 3.8 | 57 |
| 33 | Stressâ€Induced Stabilization of Crystals in Shape Memory Natural Rubber. Macromolecular Rapid Communications, 2013, 34, 180-184. | 3.9 | 57 |
| 34 | 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 |
| 35 | Nanophase Separated Amphiphilic Microbeads. Macromolecules, 2005, 38, 7536-7539. | 4.8 | 56 |
| 36 | Nontoxic, Hydrophilic Cationic Polymersâ€"Identified as Class of Antimicrobial Polymers. Macromolecular Bioscience, 2015, 15, 1710-1723. | 4.1 | 56 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Contactâ€Active Antimicrobial and Potentially Selfâ€Polishing Coatings Based on Cellulose. Macromolecular Bioscience, 2011, 11, 111-121. | 4.1 | 55 |
| 38 | 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 |
| 39 | A Coating that Combines Lotusâ€Effect and Contactâ€Active Antimicrobial Properties on Silicone. Advanced Functional Materials, 2018, 28, 1801248. | 14.9 | 53 |
| 40 | Amphiphilic Polymer Conetworks Based on End Group Cross-Linked Poly(2-oxazoline) Homo- and Triblock Copolymers. Macromolecules, 2013, 46, 3234-3245. | 4.8 | 50 |
| 41 | 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 |
| 42 | 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 |
| 43 | Shape memory natural rubber. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1381-1388. | 2.1 | 48 |
| 44 | THz-Spectroscopy on High Density Polyethylene with Different Crystallinity. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 189-197. | 2.2 | 48 |
| 45 | Recoverable strain storage capacity of shape memory polyethylene. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1033-1040. | 2.1 | 43 |
| 46 | Investigations on diffusion limitations of biocatalyzed reactions in amphiphilic polymer conetworks in organic solvents. Biotechnology and Bioengineering, 2013, 110, 2333-2342. | 3.3 | 43 |
| 47 | 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 |
| 48 | 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 |
| 49 | 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 |
| 50 | Poly(2-oxazoline)â€“Antibiotic Conjugates with Penicillins. Bioconjugate Chemistry, 2017, 28, 2440-2451. | 3.6 | 39 |
| 51 | Programming of Shape Memory Natural Rubber for Near-Discrete Shape Transitions. ACS Applied Materials & Interfaces, 2015, 7, 1486-1490. | 8.0 | 38 |
| 52 | Environmental Memory of Polymer Networks under Stress. Advanced Materials, 2014, 26, 3441-3444. | 21.0 | 37 |
| 53 | Urease-induced calcification of segmented polymer hydrogels â€“ A step towards artificial biomineralization. Acta Biomaterialia, 2014, 10, 3942-3951. | 8.3 | 37 |
| 54 | Chemical Crossâ€linking of Polypropylenes Towards New Shape Memory Polymers. Macromolecular Rapid Communications, 2015, 36, 744-749. | 3.9 | 37 |

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|---|---|---|---|
| 55 | Ionically Cross-Linked Shape Memory Polypropylene. Macromolecules, 2016, 49, 6918-6927. | 4.8 | 35 |
| 56 | Investigations on the activity of poly(2-oxazoline) enzyme conjugates dissolved in organic solvents. Journal of Biotechnology, 2014, 181, 55-63. | 3.8 | 34 |
| 57 | Bimetallic silverâ€“platinum nanoparticles with combined osteo-promotive and antimicrobial activity. Nanotechnology, 2019, 30, 305101. | 2.6 | 34 |
| 58 | Solidâˆ'Solid Interface Adsorption of Proteins and Enzymes in Nanophase-Separated Amphiphilic Conetworks. Biomacromolecules, 2011, 12, 1594-1601. | 5.4 | 33 |
| 59 | Organosoluble enzyme conjugates with poly(2-oxazoline)s via pyromellitic acid dianhydride. Journal of Biotechnology, 2012, 159, 195-203. | 3.8 | 31 |
| 60 | 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 |
| 61 | Polymer Enzyme Conjugates as Chiral Ligands for Sharpless Dihydroxylation of Alkenes in Organic Solvents. ChemBioChem, 2015, 16, 83-90. | 2.6 | 28 |
| 62 | 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 |
| 63 | Shapeâ€Memory PVDF Exhibiting Switchable Piezoelectricity. Macromolecular Rapid Communications, 2015, 36, 2042-2046. | 3.9 | 21 |
| 64 | Heating Rate Sensitive Multi-Shape Memory Polypropylene: A Predictive Material. ACS Applied Materials & Interfaces, 2016, 8, 13684-13687. | 8.0 | 21 |
| 65 | Telechelic biocidal poly(2-oxazoline)s and polycations. European Polymer Journal, 2019, 120, 109233. | 5.4 | 19 |
| 66 | 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 |
| 67 | Fast-Acting Antibacterial, Self-Deactivating Polyionene Esters. ACS Applied Materials & Interfaces, 2020, 12, 21201-21209. | 8.0 | 18 |
| 68 | 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 |
| 69 | Entropically driven Polymeric Enzyme Inhibitors by Endâ€Group directed Conjugation. Chemistry - A European Journal, 2018, 24, 4523-4527. | 3.3 | 17 |
| 70 | Investigations on the thermoresponsive behavior of copoly(2-oxazoline)s in water. Polymer, 2019, 175, 294-301. | 3.8 | 17 |
| 71 | Improving the Strength of Ultrastiff Organicâ€“Inorganic Double-Network Hydrogels. Chemistry of Materials, 0, , . | 6.7 | 17 |
| 72 | Postâ€Polymerization of Ureaseâ€Induced Calcified, Polymer Hydrogels. Macromolecular Rapid Communications, 2015, 36, 224-230. | 3.9 | 16 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 73 | 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 |
| 74 | Crosslinking of Semiaromatic Polyesters toward Highâ€Temperature Shape Memory Polymers with Full Recovery. Macromolecular Rapid Communications, 2018, 39, e1700768. | 3.9 | 16 |
| 75 | Ultrahighâ€Aspect Ratio Microfiberâ€Furs as Plantâ€Surface Mimics Derived from Teeth. Advanced Materials, 2011, 23, 3565-3569. | 21.0 | 15 |
| 76 | 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 |
| 77 | 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 |
| 78 | Highly active and selective telechelic antimicrobial poly(2-oxazoline) copolymers. Polymer, 2017, 118, 107-115. | 3.8 | 13 |
| 79 | 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 |
| 80 | 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 |
| 81 | 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 |
| 82 | 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 |
| 83 | Amphiphilic Polymer Conetworks as Matrices for Phase Transfer Reactions. Macromolecular Symposia, 2010, 291-292, 293-301. | 0.7 | 10 |
| 84 | 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 |
| 85 | 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 |
| 86 | 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 |
| 87 | Tensile Creep Measurements of Glassy VOC-Loaded Polymers. Macromolecules, 2010, 43, 8997-9003. | 4.8 | 9 |
| 88 | 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 |
| 89 | Poly(2â€ethyloxazoline) as matrix for highly active electrospun enzymes in organic solvents. Biotechnology and Bioengineering, 2017, 114, 39-45. | 3.3 | 9 |
| 90 | Silver-Based Antimicrobial Coatings. ACS Symposium Series, 2006, , 215-231. | 0.5 | 8 |

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| 91 | Telechelic, Antimicrobial Hydrophilic Polycations with Two Modes of Action. Macromolecular Bioscience, 2018, 18, e1700389. | 4.1 | 8 |
| 92 | 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 |
| 93 | 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 |
| 94 | 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 |
| 95 | Biodegradable Poly(ester hydrazide)s via Enzymatic Polymerization. Macromolecular Rapid Communications, 2005, 26, 1330-1335. | 3.9 | 6 |
| 96 | Coatings for Prevention or Deactivation of Biological Contamination. , 2008, , 1013-1065. | | 6 |
| 97 | Amphiphilic polymer conetworks with ideal and non-ideal swelling behavior demonstrated by small angle X-ray scattering. Polymer, 2022, 242, 124582. | 3.8 | 6 |
| 98 | VOC Sorption in Stretched Cross-Linked Natural Rubber. Industrial & Engineering Chemistry Research, 2016, 55, 7191-7200. | 3.7 | 5 |
| 99 | Multiaxial Reinforcement of Cross-Linked Isotactic Poly(propylene) upon Uniaxial Stretching. Macromolecular Materials and Engineering, 2017, 302, 1600308. | 3.6 | 5 |
| 100 | Poly(2â€oxazoline)s with a 2,2â€²â€iminodiacetate End Group Inhibit and Stabilize Laccase. ChemBioChem, 2020, 21, 874-882. | 2.6 | 5 |
| 101 | Realizing a shape-memory effect for synthetic rubber (IR). Polymer, 2020, 203, 122788. | 3.8 | 5 |
| 102 | Insights in the Thermal Volume Transition of Poly(2â€oxazoline) Hydrogels. Macromolecular Chemistry and Physics, 2021, 222, 2100157. | 2.2 | 5 |
| 103 | Shape Memory Effect, Shock- and Energy-Absorption Capability of Critically Cross-Linked Syndiotactic Polypropylene. Materials Today: Proceedings, 2019, 16, 1531-1537. | 1.8 | 3 |
| 104 | Shockâ€and Energyâ€Absorption Capability of Coldâ€Programmable Shape Memory Polymers. Macromolecular Chemistry and Physics, 2019, 220, 1800274. | 2.2 | 3 |
| 105 | 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 |
| 106 | Smallâ€Angle Xâ€Ray Scattering Measurements on Amphiphilic Polymer Conetworks Swollen in Orthogonal Solvents. Macromolecular Chemistry and Physics, 2021, 222, 2000292. | 2.2 | 3 |
| 107 | Enzymeâ€Induced Ferrification of Hydrogels for Toughening of Functional Inorganic Compounds. Macromolecular Materials and Engineering, 2022, 307, . | 3.6 | 3 |
| 108 | Structural Characterization of Glassy and Rubbery Model Anionic Amphiphilic Polymer Conetworks. ACS Symposium Series, 2008, , 286-302. | 0.5 | 2 |

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|---|---|---|---|
| 109 | Nanoarmored Enzymes for Organic Enzymology. Methods in Enzymology, 2017, 590, 413-444. | 1.0 | 1 |
| 110 | Tunable Swelling Kinetics of Shape-Memory Poly(2-Ethyl-2-Oxazoline)-Networks. Materials Today: Proceedings, 2019, 16, 1554-1559. | 1.8 | 1 |
| 111 | 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 |