

GÃ¼nter E M Tovar

List of Publications by Year in descending order

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95
papers

2,702
citations

201385

27
h-index

197535

49
g-index

101
all docs

101
docs citations

101
times ranked

3531
citing authors

#	ARTICLE	IF	CITATIONS
1	Friction and Wear Behavior of Deep Drawing Tools Using Volatile Lubricants Injected Through Laser-Drilled Micro-Holes. <i>Jom</i> , 2022, 74, 826-836.	0.9	4
2	Multi-axis 3D printing of gelatin methacryloyl hydrogels on a non-planar surface obtained from magnetic resonance imaging. <i>Additive Manufacturing</i> , 2022, 50, 102566.	1.7	10
3	Evaluation of novel biomaterials for cartilage regeneration based on gelatin methacryloyl interpenetrated with extractive chondroitin sulfate or unsulfated biotechnological chondroitin. <i>Journal of Biomedical Materials Research - Part A</i> , 2022, 110, 1210-1223.	2.1	22
4	Determination of the Conversion and Efficiency for CO ₂ in an Atmospheric Pressure Microwave Plasma Torch. <i>Chemie-Ingenieur-Technik</i> , 2022, 94, 299-308.	0.4	7
5	Photo-crosslinking and surface-attachment of polyvinyl alcohol nanocoatings by C,H insertion to customize their swelling behavior and stability in polar media. <i>Polymer Chemistry</i> , 2022, 13, 4273-4283.	1.9	5
6	Azido- functionalized gelatin via direct conversion of lysine amino groups by diazo transfer as a building block for biofunctional hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 77-91.	2.1	1
7	Influence of Hard Segment Content and Diisocyanate Structure on the Transparency and Mechanical Properties of Poly(dimethylsiloxane)-Based Urea Elastomers for Biomedical Applications. <i>Polymers</i> , 2021, 13, 212.	2.0	16
8	Differentiation of physical and chemical cross-linking in gelatin methacryloyl hydrogels. <i>Scientific Reports</i> , 2021, 11, 3256.	1.6	44
9	Turbulent energy transfer into zonal flows from the weak to the strong flow shear regime in the stellarator TJ-K. <i>Physics of Plasmas</i> , 2021, 28, .	0.7	2
10	Tribological Conditions Using CO ₂ as Volatile Lubricant in Dry Metal Forming. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2020, 7, 965-973.	2.7	4
11	Coumarin-4-methyl- and p-Hydroxyphenacyl-Based Photoacid Generators with High Solubility in Aqueous Media: Synthesis, Stability and Photolysis. <i>ChemPhotoChem</i> , 2020, 4, 207-217.	1.5	3
12	Eclectic characterisation of chemically modified cell-derived matrices obtained by metabolic glycoengineering and re-assessment of commonly used methods. <i>RSC Advances</i> , 2020, 10, 35273-35286.	1.7	3
13	Precision 3D-Printed Cell Scaffolds Mimicking Native Tissue Composition and Mechanics. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000918.	3.9	29
14	Structure-property relations of amphiphilic poly(furfuryl glycidyl ether)- <i>block</i> -poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.9	2
15	The choice of biopolymer is crucial to trigger angiogenesis with vascular endothelial growth factor releasing coatings. <i>Journal of Materials Science: Materials in Medicine</i> , 2020, 31, 93.	1.7	6
16	Experimental observation of resonance manifold shrinking under zonal flow shear. <i>Physical Review E</i> , 2020, 102, 063201.	0.8	1
17	Azide-Functional Extracellular Matrix Coatings as a Bioactive Platform for Bioconjugation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 26868-26879.	4.0	9
18	Hydrogels with multiple clickable anchor points: synthesis and characterization of poly(furfuryl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 4485-4494.	1.9	5

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19	Physical Interactions Strengthen Chemical Gelatin Methacryloyl Gels. <i>Gels</i> , 2019, 5, 4.	2.1	30
20	Expanding the Range of Available Isoelectric Points of Highly Methacryloylated Gelatin. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900097.	1.1	3
21	Synthesis of Soft Polysiloxane-urea Elastomers for Intraocular Lens Application. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	3
22	Plant virus-based materials for biomedical applications: Trends and prospects. <i>Advanced Drug Delivery Reviews</i> , 2019, 145, 96-118.	6.6	66
23	Influence of PDMS molecular weight on transparency and mechanical properties of soft polysiloxane-urea-elastomers for intraocular lens application. <i>European Polymer Journal</i> , 2018, 101, 190-201.	2.6	26
24	Covalent incorporation of tobacco mosaic virus increases the stiffness of poly(ethylene glycol) diacrylate hydrogels. <i>RSC Advances</i> , 2018, 8, 4686-4694.	1.7	9
25	Data on the synthesis and mechanical characterization of polysiloxane-based urea-elastomers prepared from amino-terminated polydimethylsiloxanes and polydimethyl-methyl-phenyl-siloxane-copolymers. <i>Data in Brief</i> , 2018, 18, 1784-1794.	0.5	14
26	Nano-MIP based sensor for penicillin G: Sensitive layer and analytical validation. <i>Sensors and Actuators B: Chemical</i> , 2018, 267, 26-33.	4.0	27
27	A systematic approach of chitosan nanoparticle preparation via emulsion crosslinking as potential adsorbent in wastewater treatment. <i>Carbohydrate Polymers</i> , 2018, 180, 46-54.	5.1	53
28	Quantification of Substitution of Gelatin Methacryloyl: Best Practice and Current Pitfalls. <i>Biomacromolecules</i> , 2018, 19, 42-52.	2.6	93
29	Triazole-based cross-linkers in radical polymerization processes: tuning mechanical properties of poly(acrylamide) and poly(<i>N,N</i> -dimethylacrylamide) hydrogels. <i>RSC Advances</i> , 2018, 8, 34743-34753.	1.7	3
30	Beyond the Modification Degree: Impact of Raw Material on Physicochemical Properties of Gelatin Type A and Type B Methacryloyls. <i>Macromolecular Bioscience</i> , 2018, 18, e1800168.	2.1	39
31	Extrusion-Based 3D Printing of Poly(ethylene glycol) Diacrylate Hydrogels Containing Positively and Negatively Charged Groups. <i>Gels</i> , 2018, 4, 69.	2.1	20
32	Photoinduced Cleavage and Hydrolysis of <i>o</i> -Nitrobenzyl Linker and Covalent Linker Immobilization in Gelatin Methacryloyl Hydrogels. <i>Macromolecular Bioscience</i> , 2018, 18, e1800104.	2.1	16
33	Active Ester Containing Surfmer for One-Stage Polymer Nanoparticle Surface Functionalization in Mini-Emulsion Polymerization. <i>Polymers</i> , 2018, 10, 408.	2.0	6
34	Chitosan nanoparticles via high-pressure homogenization-assisted miniemulsion crosslinking for mixed-matrix membrane adsorbers. <i>Carbohydrate Polymers</i> , 2018, 201, 172-181.	5.1	19
35	Interactions of methacryloylated gelatin and heparin modulate physico-chemical properties of hydrogels and release of vascular endothelial growth factor. <i>Biomedical Materials (Bristol)</i> , 2018, 13, 055008.	1.7	13
36	Physically and chemically gelling hydrogel formulations based on poly(ethylene glycol) diacrylate and Poloxamer 407. <i>Polymer</i> , 2017, 108, 21-28.	1.8	16

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37	Influence of shear thinning and material flow on robotic dispensing of poly(ethylene glycol) diacrylate/poloxamer 407 hydrogels. <i>Journal of Applied Polymer Science</i> , 2017, 134, 45083.	1.3	23
38	clickECM: Development of a cell-derived extracellular matrix with azide functionalities. <i>Acta Biomaterialia</i> , 2017, 52, 159-170.	4.1	29
39	Bone matrix production in hydroxyapatite-modified hydrogels suitable for bone bioprinting. <i>Biofabrication</i> , 2017, 9, 044103.	3.7	124
40	Impact of intermediate UV curing and yield stress of 3D printed poly(ethylene glycol) diacrylate hydrogels on interlayer connectivity and maximum build height. <i>Additive Manufacturing</i> , 2017, 18, 136-144.	1.7	16
41	Controlled Release of Vascular Endothelial Growth Factor from Heparin-Functionalized Gelatin Type A and Albumin Hydrogels. <i>Gels</i> , 2017, 3, 35.	2.1	31
42	Blood-Vessel Mimicking Structures by Stereolithographic Fabrication of Small Porous Tubes Using Cytocompatible Polyacrylate Elastomers, Biofunctionalization and Endothelialization. <i>Journal of Functional Biomaterials</i> , 2016, 7, 11.	1.8	31
43	Charged Triazole Cross-Linkers for Hyaluronan-Based Hybrid Hydrogels. <i>Materials</i> , 2016, 9, 810.	1.3	14
44	Gelatin methacrylamide as coating material in cell culture. <i>Biointerphases</i> , 2016, 11, 021007.	0.6	9
45	Biopolymer-based hydrogels for cartilage tissue engineering. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2016, 5, 51-66.	0.7	22
46	Hydroxyapatite-modified gelatin bioinks for bone bioprinting. <i>BioNanoMaterials</i> , 2016, 17, .	1.4	35
47	Methacrylated gelatin and mature adipocytes are promising components for adipose tissue engineering. <i>Journal of Biomaterials Applications</i> , 2016, 30, 699-710.	1.2	98
48	Heparin molecularly imprinted surfaces for the attenuation of complement activation in blood. <i>Biomaterials Science</i> , 2015, 3, 1208-1217.	2.6	19
49	Simulation of imprinted emulsion prepolymerization mixtures. <i>Polymer Journal</i> , 2015, 47, 827-830.	1.3	11
50	Synthesis of Pyridine Acrylates and Acrylamides and Their Corresponding Pyridinium Ions as Versatile Cross-Linkers for Tunable Hydrogels. <i>Synthesis</i> , 2014, 46, 1243-1253.	1.2	8
51	Molecularly Imprinted Polymer Waveguides for Direct Optical Detection of Low-Molecular-Weight Analytes. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 2295-2304.	1.1	11
52	Removal of micropollutants from water by nanocomposite membrane adsorbers. <i>Separation and Purification Technology</i> , 2014, 131, 60-68.	3.9	21
53	Side chain thiol-functionalized poly(ethylene glycol) by post-polymerization modification of hydroxyl groups: synthesis, crosslinking and inkjet printing. <i>Polymer Chemistry</i> , 2014, 5, 5350-5359.	1.9	20
54	Bioprinting of artificial blood vessels: current approaches towards a demanding goal. <i>European Journal of Cardio-thoracic Surgery</i> , 2014, 46, 767-778.	0.6	158

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55	Chemical tailoring of gelatin to adjust its chemical and physical properties for functional bioprinting. <i>Journal of Materials Chemistry B</i> , 2013, 1, 5675.	2.9	195
56	Toward Controlling the Formation, Degradation Behavior, and Properties of Hydrogels Synthesized by Aza-Michael Reactions. <i>Macromolecular Chemistry and Physics</i> , 2013, 214, 1865-1873.	1.1	18
57	Surface etching of methacrylic microparticles via basic hydrolysis and introduction of functional groups for click chemistry. <i>Journal of Colloid and Interface Science</i> , 2013, 397, 185-191.	5.0	7
58	Fluorescent Spherical Monodisperse Silica Core-Shell Nanoparticles with a Protein-Binding Biofunctional Shell. <i>Methods in Molecular Biology</i> , 2013, 991, 293-306.	0.4	1
59	Nanostructured Composite Adsorber Membranes for the Reduction of Trace Substances in Water: The Example of Bisphenol A. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 14011-14018.	1.8	16
60	Desmosine-Inspired Cross-Linkers for Hyaluronan Hydrogels. <i>Scientific Reports</i> , 2013, 3, 2043.	1.6	13
61	Generation and Surface Functionalization of Electro Photographic Toner Particles for Biomaterial Applications. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1569, 165-171.	0.1	0
62	Triphenylene Silanes for Direct Surface Anchoring in Binary Mixed Self-Assembled Monolayers. <i>Langmuir</i> , 2012, 28, 8399-8407.	1.6	20
63	Stiff gelatin hydrogels can be photo-chemically synthesized from low viscous gelatin solutions using molecularly functionalized gelatin with a high degree of methacrylation. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 2607-2617.	1.7	195
64	Surface Functionalization of Toner Particles for the Assembly of Three-Dimensional Objects via Click Chemistry. <i>Chemie-Ingenieur-Technik</i> , 2012, 84, 322-327.	0.4	0
65	Optical sensors with molecularly imprinted nanospheres: a promising approach for robust and label-free detection of small molecules. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 3245-3252.	1.9	26
66	Fabrication of 2D protein microstructures and 3D polymer-protein hybrid microstructures by two-photon polymerization. <i>Biofabrication</i> , 2011, 3, 025003.	3.7	120
67	Evaluation of Cell-Material Interactions on Newly Designed, Printable Polymers for Tissue Engineering Applications. <i>Advanced Engineering Materials</i> , 2011, 13, B467.	1.6	7
68	Cover <i>Advanced Biomaterials</i> 7/2011. <i>Advanced Engineering Materials</i> , 2011, 13, n/a-n/a.	1.6	0
69	Preparation and characterisation of dry thin native protein trehalose films on titanium-coated cyclo-olefin polymer (COP) foil generated by spin-coating/drying process and applied for protein transfer by Laser-Induced-Forward Transfer (LIFT). <i>Chemical Engineering and Processing: Process Intensification</i> , 2011, 50, 558-564.	1.8	5
70	Surface functionalization of toner particles for three-dimensional laser-printing in biomaterial applications. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1340, 1.	0.1	3
71	Ink Formulation for Inkjet Printing of Streptavidin and Streptavidin Functionalized Nanoparticles. <i>Journal of Dispersion Science and Technology</i> , 2011, 32, 1759-1764.	1.3	7
72	Water treatment by molecularly imprinted polymer nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1169, 407.	0.1	3

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73	In vitro study of mouse fibroblast tumor cells with TNF coated and Alexa488 marked silica nanoparticles with an endoscopic device for real time cancer visualization. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1190, 172.	0.1	1
74	Mixed self-assembled monolayers (SAMs) consisting of methoxy-tri(ethylene glycol)-terminated and alkyl-terminated dimethylchlorosilanes control the non-specific adsorption of proteins at oxidic surfaces. <i>Journal of Colloid and Interface Science</i> , 2006, 295, 427-435.	5.0	42
75	Modular Surfmers with Activated Ester Function – A Colloidal Tool for the Preparation of Bioconjugative Nanoparticles. , 2006, , 30-34.		3
76	Microstructured layers of spherical biofunctional core-shell nanoparticles provide enlarged reactive surfaces for protein microarrays. <i>Analytical and Bioanalytical Chemistry</i> , 2005, 383, 738-746.	1.9	14
77	Tumor Necrosis Factor (TNF)-Functionalized Nanostructured Particles for the Stimulation of Membrane TNF-Specific Cell Responses. <i>Bioconjugate Chemistry</i> , 2005, 16, 1459-1467.	1.8	29
78	Binding of JAB1/CSN5 to MIF is mediated by the MPN domain but is independent of the JAMM motif. <i>FEBS Letters</i> , 2005, 579, 1693-1701.	1.3	37
79	Modular Structure of Biochips Based on Microstructured Deposition of Functional Nanoparticles. <i>Engineering in Life Sciences</i> , 2004, 4, 93-97.	2.0	2
80	Bioconjugative polymer nanospheres studied by isothermal titration calorimetry. <i>Thermochimica Acta</i> , 2004, 415, 69-74.	1.2	7
81	Affinity parameters of amino acid derivative binding to molecularly imprinted nanospheres consisting of poly[(ethylene glycol dimethacrylate)-co-(methacrylic acid)]. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2004, 808, 43-50.	1.2	30
82	Controlled Surface Functionalization of Silica Nanospheres by Covalent Conjugation Reactions and Preparation of High Density Streptavidin Nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2004, 4, 504-511.	0.9	85
83	Development of an MHC-class I peptide selection assay combining nanoparticle technology and matrix-assisted laser desorption/ionisation mass spectrometry. <i>Journal of Immunological Methods</i> , 2003, 283, 205-213.	0.6	8
84	Polymer Nanoparticles with Activated Ester Surface by Using Functional Surfmers. <i>Macromolecular Chemistry and Physics</i> , 2003, 204, 770-778.	1.1	34
85	Molecularly Imprinted Polymer Nanospheres as Fully Synthetic Affinity Receptors. <i>Topics in Current Chemistry</i> , 2003, , 125-144.	4.0	18
86	GrenzflÄchen und der Blick aufs Ganze. <i>Nachrichten Aus Der Chemie</i> , 2003, 51, 929-929.	0.0	0
87	Isothermal Titration Calorimetry of Molecularly Imprinted Polymer Nanospheres. <i>Macromolecular Rapid Communications</i> , 2002, 23, 824-828.	2.0	60
88	Title is missing!. <i>Macromolecular Chemistry and Physics</i> , 2002, 203, 1965-1973.	1.1	153
89	Selective separations and hydrodynamic studies: a new approach using molecularly imprinted nanosphere composite membranes. <i>Desalination</i> , 2002, 149, 315-321.	4.0	54
90	A successive dry-wet process for fabricating conductive thin film of bis(ethylenedithio)tetrathiafulvalene salt. <i>Thin Solid Films</i> , 2001, 393, 225-230.	0.8	4

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91	Microstructuring of Molecularly Thin Polymer Layers by Photolithography. <i>Advanced Materials</i> , 1998, 10, 1073-1077.	11.1	107
92	Neural cell pattern formation on glass and oxidized silicon surfaces modified with poly(N-isopropylacrylamide). <i>Journal of Biomaterials Science, Polymer Edition</i> , 1997, 8, 19-39.	1.9	47
93	Acid catalyzed crosslinking of polyvinyl alcohol for humidifier membranes. <i>Journal of Applied Polymer Science</i> , 0, , 51606.	1.3	7
94	Modelling and Study of a Microwave Plasma Source for High-rate Etching. , 0, , .		0
95	Modular Surfmers with Activated Ester Function " " Colloidal Tool for the Preparation of Bioconjugative Nanoparticles. , 0, , 30-34.		0