

Gunter E M Tovar

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

2,035
citations

23
h-index

42
g-index

101
ext. papers

2,337
ext. citations

4.7
avg, IF

4.97
L-index

#	Paper	IF	Citations
95	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	6.1	0
94	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, 052502	2.1	1
93	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	5.4	0
92	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,	4.5	7
91	Differentiation of physical and chemical cross-linking in gelatin methacryloyl hydrogels. <i>Scientific Reports</i> , 2021 , 11, 3256	4.9	9
90	Experimental observation of resonance manifold shrinking under zonal flow shear. <i>Physical Review E</i> , 2020 , 102, 063201	2.4	
89	Azide-Functional Extracellular Matrix Coatings as a Bioactive Platform for Bioconjugation. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 26868-26879	9.5	4
88	Coumarin-4-ylmethyl- and p-Hydroxyphenacyl-Based Photoacid Generators with High Solubility in Aqueous Media: Synthesis, Stability and Photolysis. <i>ChemPhotoChem</i> , 2020 , 4, 207-217	3.3	2
87	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	3.7	0
86	Precision 3D-Printed Cell Scaffolds Mimicking Native Tissue Composition and Mechanics. <i>Advanced Healthcare Materials</i> , 2020 , 9, e2000918	10.1	12
85	Structure-property relations of amphiphilic poly(furfuryl glycidyl ether)-block-poly(ethylene glycol) macromonomers at the air-water interface. <i>Polymer Chemistry</i> , 2020 , 11, 5659-5668	4.9	1
84	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	4.5	1
83	Tribological Conditions Using CO2 as Volatile Lubricant in Dry Metal Forming. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2020 , 7, 965-973	3.8	2
82	Physical Interactions Strengthen Chemical Gelatin Methacryloyl Gels. <i>Gels</i> , 2019 , 5,	4.2	17
81	Expanding the Range of Available Isoelectric Points of Highly Methacryloylated Gelatin. <i>Macromolecular Chemistry and Physics</i> , 2019 , 220, 1900097	2.6	0
80	Synthesis of Soft Polysiloxane-urea Elastomers for Intraocular Lens Application. <i>Journal of Visualized Experiments</i> , 2019 ,	1.6	2
79	Hydrogels with multiple clickable anchor points: synthesis and characterization of poly(furfuryl glycidyl ether)-block-poly(ethylene glycol) macromonomers. <i>Polymer Chemistry</i> , 2019 , 10, 4485-4494	4.9	5

78	Plant virus-based materials for biomedical applications: Trends and prospects. <i>Advanced Drug Delivery Reviews</i> , 2019 , 145, 96-118	18.5	47
77	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	5.2	19
76	Covalent incorporation of tobacco mosaic virus increases the stiffness of poly(ethylene glycol) diacrylate hydrogels.. <i>RSC Advances</i> , 2018 , 8, 4686-4694	3.7	8
75	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	1.2	11
74	Nano-MIP based sensor for penicillin G: Sensitive layer and analytical validation. <i>Sensors and Actuators B: Chemical</i> , 2018 , 267, 26-33	8.5	17
73	A systematic approach of chitosan nanoparticle preparation via emulsion crosslinking as potential adsorbent in wastewater treatment. <i>Carbohydrate Polymers</i> , 2018 , 180, 46-54	10.3	35
72	Active Ester Containing Surfmer for One-Stage Polymer Nanoparticle Surface Functionalization in Mini-Emulsion Polymerization. <i>Polymers</i> , 2018 , 10,	4.5	5
71	Chitosan nanoparticles via high-pressure homogenization-assisted miniemulsion crosslinking for mixed-matrix membrane adsorbers. <i>Carbohydrate Polymers</i> , 2018 , 201, 172-181	10.3	14
70	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	3.5	8
69	Quantification of Substitution of Gelatin Methacryloyl: Best Practice and Current Pitfalls. <i>Biomacromolecules</i> , 2018 , 19, 42-52	6.9	59
68	Triazole-based cross-linkers in radical polymerization processes: tuning mechanical properties of poly(acrylamide) and poly(-dimethylacrylamide) hydrogels.. <i>RSC Advances</i> , 2018 , 8, 34743-34753	3.7	2
67	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	5.5	23
66	Extrusion-Based 3D Printing of Poly(ethylene glycol) Diacrylate Hydrogels Containing Positively and Negatively Charged Groups. <i>Gels</i> , 2018 , 4,	4.2	15
65	Photoinduced Cleavage and Hydrolysis of o-Nitrobenzyl Linker and Covalent Linker Immobilization in Gelatin Methacryloyl Hydrogels. <i>Macromolecular Bioscience</i> , 2018 , 18, e1800104	5.5	9
64	Physically and chemically gelling hydrogel formulations based on poly(ethylene glycol) diacrylate and Pluronic 407. <i>Polymer</i> , 2017 , 108, 21-28	3.9	12
63	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	2.9	21
62	clickECM: Development of a cell-derived extracellular matrix with azide functionalities. <i>Acta Biomaterialia</i> , 2017 , 52, 159-170	10.8	21
61	Bone matrix production in hydroxyapatite-modified hydrogels suitable for bone bioprinting. <i>Biofabrication</i> , 2017 , 9, 044103	10.5	90

60	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	6.1	14
59	Controlled Release of Vascular Endothelial Growth Factor from Heparin-Functionalized Gelatin Type A and Albumin Hydrogels. <i>Gels</i> , 2017 , 3,	4.2	20
58	Biopolymer-based hydrogels for cartilage tissue engineering. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2016 , 5, 51-66	1.3	18
57	Hydroxyapatite-modified gelatin bioinks for bone bioprinting. <i>BioNanoMaterials</i> , 2016 , 17,		27
56	Methacrylated gelatin and mature adipocytes are promising components for adipose tissue engineering. <i>Journal of Biomaterials Applications</i> , 2016 , 30, 699-710	2.9	75
55	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,	4.8	27
54	Charged Triazole Cross-Linkers for Hyaluronan-Based Hybrid Hydrogels. <i>Materials</i> , 2016 , 9,	3.5	10
53	Gelatin methacrylamide as coating material in cell culture. <i>Biointerphases</i> , 2016 , 11, 021007	1.8	8
52	Heparin molecularly imprinted surfaces for the attenuation of complement activation in blood. <i>Biomaterials Science</i> , 2015 , 3, 1208-17	7.4	15
51	Simulation of imprinted emulsion prepolymerization mixtures. <i>Polymer Journal</i> , 2015 , 47, 827-830	2.7	10
50	Removal of micropollutants from water by nanocomposite membrane adsorbers. <i>Separation and Purification Technology</i> , 2014 , 131, 60-68	8.3	13
49	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	4.9	16
48	Bioprinting of artificial blood vessels: current approaches towards a demanding goal. <i>European Journal of Cardio-thoracic Surgery</i> , 2014 , 46, 767-78	3	122
47	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	2.9	8
46	Molecularly Imprinted Polymer Waveguides for Direct Optical Detection of Low-Molecular-Weight Analytes. <i>Macromolecular Chemistry and Physics</i> , 2014 , 215, 2295-2304	2.6	8
45	Chemical tailoring of gelatin to adjust its chemical and physical properties for functional bioprinting. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 5675-5685	7.3	146
44	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	2.6	17
43	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, 185-91	9.3	7

42	Fluorescent spherical monodisperse silica core-shell nanoparticles with a protein-binding biofunctional shell. <i>Methods in Molecular Biology</i> , 2013 , 991, 293-306	1.4	1
41	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	3.9	14
40	Desmosine-inspired cross-linkers for hyaluronan hydrogels. <i>Scientific Reports</i> , 2013 , 3, 2043	4.9	12
39	Generation and Surface Functionalization of Electro Photographic Toner Particles for Biomaterial Applications. <i>Materials Research Society Symposia Proceedings</i> , 2013 , 1569, 165-171		
38	Triphenylene silanes for direct surface anchoring in binary mixed self-assembled monolayers. <i>Langmuir</i> , 2012 , 28, 8399-407	4	19
37	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, 2607-17	4.5	143
36	Oberflächenfunktionalisierung von Tonerpartikeln fñden Aufbau dreidimensionaler Objekte mittels Klick-Chemie. <i>Chemie-Ingenieur-Technik</i> , 2012 , 84, 322-327	0.8	
35	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, 3245-52	4.4	24
34	Evaluation of Cell-Material Interactions on Newly Designed, Printable Polymers for Tissue Engineering Applications. <i>Advanced Engineering Materials</i> , 2011 , 13, B467-B475	3.5	7
33	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	3.7	4
32	Fabrication of 2D protein microstructures and 3D polymer-protein hybrid microstructures by two-photon polymerization. <i>Biofabrication</i> , 2011 , 3, 025003	10.5	104
31	Surface functionalization of toner particles for three-dimensional laser-printing in biomaterial applications. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1340, 1		3
30	Ink Formulation for Inkjet Printing of Streptavidin and Streptavidin Functionalized Nanoparticles. <i>Journal of Dispersion Science and Technology</i> , 2011 , 32, 1759-1764	1.5	4
29	Water treatment by molecularly imprinted polymer nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1169, 407		2
28	C-VIS: Interoperative Tumorerkenung mit Hilfe von Nanopartikeln. <i>Endoskopie Heute</i> , 2009 , 22, 36-39		1
27	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		1
26	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, 427-35	9.3	40
25	Modular Surfmers with Activated Ester Function [A Colloidal Tool for the Preparation of Bioconjugative Nanoparticles 2006 , 30-34		3

24	Tumor necrosis factor (TNF)-functionalized nanostructured particles for the stimulation of membrane TNF-specific cell responses. <i>Bioconjugate Chemistry</i> , 2005 , 16, 1459-67	6.3	27
23	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, 1693-701	3.8	30
22	Microstructured layers of spherical biofunctional core-shell nanoparticles provide enlarged reactive surfaces for protein microarrays. <i>Analytical and Bioanalytical Chemistry</i> , 2005 , 383, 738-46	4.4	14
21	Modular Structure of Biochips Based on Microstructured Deposition of Functional Nanoparticles. <i>Engineering in Life Sciences</i> , 2004 , 4, 93-97	3.4	1
20	Bioconjugative polymer nanospheres studied by isothermal titration calorimetry. <i>Thermochimica Acta</i> , 2004 , 415, 69-74	2.9	6
19	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	3.2	26
18	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, 504-11	1.3	76
17	Grenzflächen und der Blick aufs Ganze. <i>Nachrichten Aus Der Chemie</i> , 2003 , 51, 929-929	0.1	
16	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, 205-13	2.5	7
15	Polymer Nanoparticles with Activated Ester Surface by Using Functional Surfmers. <i>Macromolecular Chemistry and Physics</i> , 2003 , 204, 770-778	2.6	32
14	Molekular geprgte Nanopartikel als selektive Phase in Kompositmembranen: Hydrodynamik und Stofftrennung in nanoskaligen Schtetzungen. <i>Chemie-Ingenieur-Technik</i> , 2003 , 75, 149-153	0.8	9
13	Modularer Aufbau von Biochips durch mikrostrukturierte Abscheidung von funktionellen Nanopartikeln. <i>Chemie-Ingenieur-Technik</i> , 2003 , 75, 437-441	0.8	2
12	Molecularly Imprinted Polymer Nanospheres as Fully Synthetic Affinity Receptors. <i>Topics in Current Chemistry</i> , 2003 , 125-144		14
11	Isothermal Titration Calorimetry of Molecularly Imprinted Polymer Nanospheres. <i>Macromolecular Rapid Communications</i> , 2002 , 23, 824-828	4.8	50
10	Molecularly imprinted polymer nanospheres as synthetic affinity receptors obtained by miniemulsion polymerisation. <i>Macromolecular Chemistry and Physics</i> , 2002 , 203, 1965-1973	2.6	129
9	Selective separations and hydrodynamic studies: a new approach using molecularly imprinted nanosphere composite membranes. <i>Desalination</i> , 2002 , 149, 315-321	10.3	47
8	A successive dry/wet process for fabricating conductive thin film of bis(ethylenedithio)tetrathiafulvalene salt. <i>Thin Solid Films</i> , 2001 , 393, 225-230	2.2	3
7	Microstructuring of Molecularly Thin Polymer Layers by Photolithography. <i>Advanced Materials</i> , 1998 , 10, 1073-1077	24	97

6	Neural cell pattern formation on glass and oxidized silicon surfaces modified with poly(N-isopropylacrylamide). <i>Journal of Biomaterials Science, Polymer Edition</i> , 1996 , 8, 19-39	3.5	37
5	Friction and Wear Behavior of Deep Drawing Tools Using Volatile Lubricants Injected Through Laser-Drilled Micro-Holes. <i>Jom</i> ,1	2.1	1
4	Bio-Microarrays382-390		
3	Acid catalyzed cross-linking of polyvinyl alcohol for humidifier membranes. <i>Journal of Applied Polymer Science</i> ,51606	2.9	1
2	Biomimetic Nanoparticles Providing Molecularly Defined Binding Sites [Protein-Featuring Structures versus Molecularly Imprinted Polymers31-67		1
1	Modular Surfmers with Activated Ester Function [A Colloidal Tool for the Preparation of Bioconjugative Nanoparticles30-34		