

Michael Malkoch

List of Publications by Year in descending order

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113
papers

5,706
citations

101543

36
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79698

73
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119
all docs

119
docs citations

119
times ranked

5962
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanogel Encapsulated Hydrogels As Advanced Wound Dressings for the Controlled Delivery of Antibiotics. <i>Advanced Functional Materials</i> , 2021, 31, 2006453.	14.9	58
2	Combination of Coordination and Releasable Covalent Binding for the Delivery of Antisense Therapeutics by Bisphosphonate-Hyaluronan-Oligonucleotide Conjugates. <i>ACS Applied Polymer Materials</i> , 2021, 3, 2197-2210.	4.4	1
3	Novel Therapeutic Platform of Micelles and Nanogels from Dopa-Functionalized Triblock Copolymers. <i>Small</i> , 2021, 17, e2007305.	10.0	9
4	UV-Cured Antibacterial Hydrogels Based on PEG and Monodisperse Heterofunctional Bis-MPA Dendrimers. <i>Molecules</i> , 2021, 26, 2364.	3.8	1
5	Highly Customizable Bone Fracture Fixation through the Marriage of Composites and Screws. <i>Advanced Functional Materials</i> , 2021, 31, 2105187.	14.9	8
6	Differentiating Co-Delivery of Bisphosphonate and Simvastatin by Self-Healing Hyaluronan Hydrogel Formed by Orthogonal "Clicks": An In-Vitro Assessment. <i>Polymers</i> , 2021, 13, 2106.	4.5	4
7	SpheriCal [®] ESI: A dendrimer-based nine-point calibration solution ranging from <i>m/z</i> 273 to 1716 for electrospray ionization mass spectrometry peptide analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9035.	1.5	3
8	Dendritic Hydrogels Induce Immune Modulation in Human Keratinocytes and Effectively Eradicate Bacterial Pathogens. <i>Journal of the American Chemical Society</i> , 2021, 143, 17180-17190.	13.7	14
9	Highly Customizable Bone Fracture Fixation through the Marriage of Composites and Screws (Adv.) <i>TJ ETQq1 1 0.784314 rgBT /Overl</i>	14.9	1
10	Accelerated Chemoselective Reactions to Sequence-Controlled Heterolayered Dendrimers. <i>Journal of the American Chemical Society</i> , 2020, 142, 1501-1509.	13.7	25
11	Self-Assembled Polyester Dendrimer/Cellulose Nanofibril Hydrogels with Extraordinary Antibacterial Activity. <i>Pharmaceutics</i> , 2020, 12, 1139.	4.5	12
12	Degradable High Molecular Weight Monodisperse Dendritic Poly(ethylene glycols). <i>Biomacromolecules</i> , 2020, 21, 4294-4301.	5.4	9
13	Synthesis of Heterofunctional Polyester Dendrimers with Internal and External Functionalities as Versatile Multipurpose Platforms. <i>Biomacromolecules</i> , 2020, 21, 4273-4279.	5.4	14
14	Modular, synthetic, thiol-ene mediated hydrogel networks as potential scaffolds for 3D cell cultures and tissue regeneration. <i>Journal of Polymer Science</i> , 2020, 58, 3153-3164.	3.8	8
15	Dendritic Polyampholyte-Assisted Formation of Functional Cellulose Nanofibril Materials. <i>Biomacromolecules</i> , 2020, 21, 2856-2863.	5.4	4
16	DendroPrime as an adhesion barrier on fracture fixation plates: an experimental study in rabbits. <i>Journal of Hand Surgery: European Volume</i> , 2020, 45, 742-747.	1.0	5
17	In Situ Encapsulation of Nile Red or Doxorubicin during RAFT-Mediated Emulsion Polymerization via Polymerization-Induced Self-Assembly for Biomedical Applications. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 1900443.	2.2	16
18	Degradable dendritic nanogels as carriers for antimicrobial peptides. <i>Journal of Colloid and Interface Science</i> , 2019, 554, 592-602.	9.4	21

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19	Helux: A Heterofunctional Hyperbranched Poly(amido amine) Carboxylate. ACS Applied Polymer Materials, 2019, 1, 1845-1853.	4.4	4
20	Penetration and Accumulation of Dendrons with Different Peripheral Composition in <i>Pseudomonas aeruginosa</i> Biofilms. Nano Letters, 2019, 19, 4327-4333.	9.1	15
21	Off-Stoichiometric Thiol-Ene Chemistry to Dendritic Nanogel Therapeutics. Advanced Functional Materials, 2019, 29, 1806693.	14.9	24
22	Antibiotic-Free Cationic Dendritic Hydrogels as Surgical Site Infection-Inhibiting Coatings. Advanced Healthcare Materials, 2019, 8, e1801619.	7.6	18
23	High-Performance Thiol-Ene Composites Unveil a New Era of Adhesives Suited for Bone Repair. Advanced Functional Materials, 2018, 28, 1800372.	14.9	36
24	Degradable high <i>T_g</i> sugar-derived polycarbonates from isosorbide and dihydroxyacetone. Polymer Chemistry, 2018, 9, 2238-2246.	3.9	24
25	Active quinine-based films able to release antimicrobial compounds via melt quaternization at low temperature. Journal of Materials Chemistry B, 2018, 6, 98-104.	5.8	3
26	Membrane interactions of microgels as carriers of antimicrobial peptides. Journal of Colloid and Interface Science, 2018, 513, 141-150.	9.4	57
27	Nanofibrous nonwovens based on dendritic-linear-dendritic poly(ethylene glycol) hybrids. Journal of Applied Polymer Science, 2018, 135, 45949.	2.6	6
28	The Dawn of Thiol-Ene Triazine Triones Thermosets as a New Material Platform Suited for Hard Tissue Repair. Advanced Materials, 2018, 30, 1804966.	21.0	10
29	On the mechanism behind freezing-induced chemical crosslinking in ice-templated cellulose nanofibril aerogels. Journal of Materials Chemistry A, 2018, 6, 19371-19380.	10.3	63
30	Bone Repair: High-Performance Thiol-Ene Composites Unveil a New Era of Adhesives Suited for Bone Repair (Adv. Funct. Mater. 26/2018). Advanced Functional Materials, 2018, 28, 1870180.	14.9	3
31	Design of multivalent fluorescent dendritic probes for site-specific labeling of biomolecules. Journal of Polymer Science Part A, 2018, 56, 1609-1616.	2.3	5
32	Evaluation of Amino-Functional Polyester Dendrimers Based on Bis-MPA as Nonviral Vectors for siRNA Delivery. Molecules, 2018, 23, 2028.	3.8	38
33	Model studies of the sequential and simultaneous statistical modification of dendritic functional groups and their implications within complex polymer architecture synthesis. Polymer Chemistry, 2017, 8, 1644-1653.	3.9	5
34	Therapeutic Nanocarriers via Cholesterol Directed Self-Assembly of Well-Defined Linear-Dendritic Polymeric Amphiphiles. Chemistry of Materials, 2017, 29, 3891-3898.	6.7	26
35	Fluoride-promoted carbonylation polymerization: a facile step-growth technique to polycarbonates. Chemical Science, 2017, 8, 4853-4857.	7.4	11
36	Facile thiolation of hydroxyl functional polymers. Polymer Chemistry, 2017, 8, 4996-5001.	3.9	5

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37	Heterogeneous Rupturing Dendrimers. <i>Journal of the American Chemical Society</i> , 2017, 139, 17660-17666.	13.7	12
38	Synthesis and <i>in Vitro</i> Evaluation of Monodisperse Amino-Functional Polyester Dendrimers with Rapid Degradability and Antibacterial Properties. <i>Biomacromolecules</i> , 2017, 18, 4323-4330.	5.4	37
39	Electrospinning of hybrid nanofibres elaborated with PEG core dendrimers and SPIONs synthesized in-situ: As multifunctional material for biomedical applications. , 2017, , .		0
40	Fluoride-Promoted Esterification (FPE) Chemistry: A Robust Route to Bis-MPA Dendrons and Their Postfunctionalization. <i>Molecules</i> , 2016, 21, 366.	3.8	17
41	Facile synthesis of dopa-functional polycarbonates via thiol-Ene-coupling chemistry towards self-healing gels. <i>Journal of Polymer Science Part A</i> , 2016, 54, 2370-2378.	2.3	15
42	Activated dopamine derivatives as primers for adhesive-patch fixation of bone fractures. <i>RSC Advances</i> , 2016, 6, 26398-26405.	3.6	14
43	High water-content thermoresponsive hydrogels via electrostatic macrocrosslinking of cellulose nanofibrils. <i>Journal of Polymer Science Part A</i> , 2016, 54, 3415-3424.	2.3	9
44	Tissue Adhesives: Linear Dendritic Block Copolymers as Promising Biomaterials for the Manufacturing of Soft Tissue Adhesive Patches Using Visible Light Initiated Thiol-Ene Coupling Chemistry (<i>Adv. Funct. Mater.</i>)	14.9	18
45	Linear Dendritic Block Copolymers as Promising Biomaterials for the Manufacturing of Soft Tissue Adhesive Patches Using Visible Light Initiated Thiol-Ene Coupling Chemistry. <i>Advanced Functional Materials</i> , 2015, 25, 6596-6605.	14.9	18
46	Dendritic hydrogels: From exploring various crosslinking chemistries to introducing functions and naturally abundant resources. <i>Journal of Polymer Science Part A</i> , 2015, 53, 2431-2439.	2.3	9
47	Beyond State of the Art Honeycomb Membranes: High Performance Ordered Arrays from Multiprogrammable Linear Dendritic Block Copolymers. <i>Advanced Functional Materials</i> , 2015, 25, 4837-4843.	14.9	16
48	Fluoride-Promoted Esterification with Imidazole-Activated Compounds: A Modular and Sustainable Approach to Dendrimers. <i>Angewandte Chemie</i> , 2015, 127, 2446-2449.	2.0	2
49	One-pot sequential deprotection/functionalisation of linear-dendritic hybrid polymers using a xanthate mediated thiol/Michael addition. <i>Polymer Chemistry</i> , 2015, 6, 573-582.	3.9	16
50	Chemistry of multifunctional polymers based on bis-MPA and their cutting-edge applications. <i>Progress in Polymer Science</i> , 2015, 48, 85-110.	24.7	39
51	Functional porous membranes from amorphous linear dendritic polyester hybrids. <i>Polymer Chemistry</i> , 2015, 6, 2390-2395.	3.9	11
52	Fluoride-Promoted Esterification with Imidazole-Activated Compounds: A Modular and Sustainable Approach to Dendrimers. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 2416-2419.	13.8	42
53	Histamine-functionalized copolymer micelles as a drug delivery system in 2D and 3D models of breast cancer. <i>Journal of Materials Chemistry B</i> , 2015, 3, 2472-2486.	5.8	20
54	Reactive imidazole intermediates: simplified synthetic approach to functional aliphatic cyclic carbonates. <i>Polymer Chemistry</i> , 2014, 5, 6651-6655.	3.9	38

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55	Recent advances on crosslinked dendritic networks. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	14
56	Soft hydrogels from tetra-functional PEGs using UV-induced thiolâ€ene coupling chemistry: a structure-to-property study. <i>RSC Advances</i> , 2014, 4, 30118.	3.6	9
57	Thiolâ€ene and thiolâ€yneâ€based synthesis of glycodendrimers as nanomolar inhibitors of wheat germ agglutinin. <i>Journal of Polymer Science Part A</i> , 2014, 52, 2422-2433.	2.3	34
58	The first peripherally masked thiol dendrimers: a facile and highly efficient functionalization strategy of polyester dendrimers via one-pot xanthate deprotection/thiolâ€acrylate Michael addition reactions. <i>Chemical Communications</i> , 2014, 50, 6574-6577.	4.1	17
59	Advantages of Monodisperse and Chemically Robust â€SpheriCalâ€ Polyester Dendrimers as a â€Universalâ€ MS Calibrant. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 303-309.	2.8	22
60	Dual-purpose PEG scaffolds for the preparation of soft and biofunctional hydrogels: the convergence between CuAAC and thiolâ€ene reactions. <i>Chemical Communications</i> , 2013, 49, 6938.	4.1	31
61	Templating Gold Surfaces with Function: A Self-Assembled Dendritic Monolayer Methodology Based on Monodisperse Polyester Scaffolds. <i>Langmuir</i> , 2013, 29, 456-465.	3.5	25
62	Multifunctional Poly(ethylene glycol): Synthesis, Characterization, and Potential Applications of Dendriticâ€Linearâ€Dendritic Block Copolymer Hybrids. <i>Macromolecules</i> , 2013, 46, 3726-3736.	4.8	43
63	UV initiated thiolâ€ene chemistry: a facile and modular synthetic methodology for the construction of functional 3D networks with tunable properties. <i>Journal of Materials Chemistry A</i> , 2013, 1, 13732.	10.3	51
64	Multipurpose heterofunctional dendritic scaffolds as crosslinkers towards functional soft hydrogels and implant adhesives in bone fracture applications. <i>Journal of Materials Chemistry B</i> , 2013, 1, 6015.	5.8	18
65	A one component methodology for the fabrication of honeycomb films from biocompatible amphiphilic block copolymer hybrids: a linearâ€dendriticâ€linear twist. <i>Polymer Chemistry</i> , 2013, 4, 2680.	3.9	29
66	pH-triggered self-assembly of biocompatible histamine-functionalized triblock copolymers. <i>Soft Matter</i> , 2013, 9, 82-89.	2.7	55
67	Sequential interpenetrating poly(ethylene glycol) hydrogels prepared by UVâ€initiated thiolâ€ene coupling chemistry. <i>Journal of Polymer Science Part A</i> , 2013, 51, 363-371.	2.3	21
68	Dendritic architectures based on bis-MPA: functional polymeric scaffolds for application-driven research. <i>Chemical Society Reviews</i> , 2013, 42, 5858.	38.1	137
69	Side-by-side comparison of dendritic-linear hybrids and their hyperbranched analogs as micellar carriers of chemotherapeutics. <i>Journal of Polymer Science Part A</i> , 2013, 51, 3992-3996.	2.3	17
70	Radical copolymerization of acrylonitrile with 2,2,2â€trifluoroethyl acrylate for dielectric materials: Structure and characterization. <i>Journal of Polymer Science Part A</i> , 2013, 51, 3856-3866.	2.3	11
71	The influence of diffusion time on the properties of sequential interpenetrating PEG hydrogels. <i>Journal of Polymer Science Part A</i> , 2013, 51, 1378-1386.	2.3	7
72	Hybrid One-Dimensional Nanostructures: One-Pot Preparation of Nanoparticle Chains via Directed Self-Assembly of in Situ Synthesized Discrete Au Nanoparticles. <i>Langmuir</i> , 2012, 28, 5947-5955.	3.5	21

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73	Hydroxyl functional polyester dendrimers as stabilizing agent for preparation of colloidal silver particles—a study in respect to antimicrobial properties and toxicity against human cells. <i>Colloid and Polymer Science</i> , 2012, 290, 1413-1421.	2.1	14
74	Linear dendritic polymeric amphiphiles as carriers of doxorubicin— <i>In vitro</i> evaluation of biocompatibility and drug delivery. <i>Journal of Polymer Science Part A</i> , 2012, 50, 217-226.	2.3	29
75	Hyperbranched copolymer micelles as delivery vehicles of doxorubicin in breast cancer cells. <i>Journal of Polymer Science Part A</i> , 2012, 50, 280-288.	2.3	50
76	Simplifying the synthesis of dendrimers: accelerated approaches. <i>Chemical Society Reviews</i> , 2012, 41, 4593.	38.1	252
77	Stability and biocompatibility of a library of polyester dendrimers in comparison to polyamidoamine dendrimers. <i>Biomaterials</i> , 2012, 33, 1970-1981.	11.4	147
78	High temperature synthesis of vinyl terminated polymers based on dendronized acrylates: a detailed product analysis study. <i>Polymer Chemistry</i> , 2011, 2, 1163-1173.	3.9	16
79	Linear dendritic polymeric amphiphiles with intrinsic biocompatibility: synthesis and characterization to fabrication of micelles and honeycomb membranes. <i>Polymer Chemistry</i> , 2011, 2, 394-402.	3.9	49
80	Beyond PDMS: off-stoichiometry thiol-ene (OSTE) based soft lithography for rapid prototyping of microfluidic devices. <i>Lab on A Chip</i> , 2011, 11, 3136.	6.0	260
81	Bifunctional Dendronized Cellulose Surfaces as Biosensors. <i>Biomacromolecules</i> , 2011, 12, 2114-2125.	5.4	59
82	Novel macrothiols for the synthesis of a structurally comprehensive dendritic library using thiol-ene click chemistry. <i>Journal of Polymer Science Part A</i> , 2011, 49, 2990-2995.	2.3	37
83	Characterization of well-defined poly(ethylene glycol) hydrogels prepared by thiol-ene chemistry. <i>Journal of Polymer Science Part A</i> , 2011, 49, 4044-4054.	2.3	58
84	Exhaustive glycosylation, pegylation, and glutathionylation of a [G4] dendrimer via photoinduced thiol-ene coupling. <i>Journal of Polymer Science Part A</i> , 2011, 49, 4468-4475.	2.3	51
85	Highly Adhesive Phenolic Compounds as Interfacial Primers for Bone Fracture Fixations. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 654-657.	8.0	41
86	Pushing the Limits for Thiol-ene and CuAAC Reactions: Synthesis of a 6th Generation Dendrimer in a Single Day. <i>Macromolecules</i> , 2010, 43, 6625-6631.	4.8	158
87	Accelerated Growth of Dendrimers via Thiol-ene and Esterification Reactions. <i>Macromolecules</i> , 2010, 43, 6004-6013.	4.8	90
88	Poly(ethylene glycol)-Based Thiol-ene Hydrogel Coatings—Curing Chemistry, Aqueous Stability, and Potential Marine Antifouling Applications. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 903-912.	8.0	89
89	Facile access to internally functionalized dendrimers through efficient and orthogonal click reactions. <i>Chemical Communications</i> , 2010, 46, 1556.	4.1	94
90	Bifunctional Dendrimers: From Robust Synthesis and Accelerated One-Pot Postfunctionalization Strategy to Potential Applications. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2126-2130.	13.8	132

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91	Inside Cover: Bifunctional Dendrimers: From Robust Synthesis and Accelerated One-Pot Postfunctionalization Strategy to Potential Applications (Angew. Chem. Int. Ed. 12/2009). Angewandte Chemie - International Edition, 2009, 48, 2056-2056.	13.8	1
92	A general strategy for highly efficient nanoparticle dispersing agents based on hybrid dendritic linear block copolymers. Journal of Polymer Science Part A, 2009, 47, 1237-1258.	2.3	53
93	New methodologies in the construction of dendritic materials. Chemical Society Reviews, 2009, 38, 352-362.	38.1	359
94	Dendron-decorated cyanine dyes for optical limiting applications in the range of telecommunication wavelengths. New Journal of Chemistry, 2009, 33, 964.	2.8	18
95	Synthesis and thiol-ene photopolymerization of allyl ether functionalized dendrimers. Journal of Polymer Science Part A, 2008, 46, 1339-1348.	2.3	57
96	Synthesis and characterization of hyperbranched polymers with increased chemical versatility for imprint lithographic resists. Journal of Polymer Science Part A, 2008, 46, 6238-6254.	2.3	34
97	Click Assisted One-Pot Multi-Step Reactions in Polymer Science: Accelerated Synthetic Protocols. Macromolecular Rapid Communications, 2008, 29, 998-1015.	3.9	135
98	Europium confined cyclen dendrimers with photophysically active triazoles. Journal of Materials Chemistry, 2008, 18, 2545.	6.7	37
99	Effects of Modulus and Surface Chemistry of Thiol-Ene Photopolymers in Nanoimprinting. Nano Letters, 2007, 7, 233-237.	9.1	101
100	Localized "Click" Chemistry Through Dip-Pen Nanolithography. Advanced Materials, 2007, 19, 4471-4473.	21.0	34
101	Role of architecture and molecular weight in the formation of tailor-made ultrathin multilayers using dendritic macromolecules and click chemistry. Journal of Polymer Science Part A, 2007, 45, 2835-2846.	2.3	113
102	A chemoselective approach for the accelerated synthesis of well-defined dendritic architectures. Chemical Communications, 2007, , 2249-2251.	4.1	128
103	Characterization of Poly(norbornene) Dendronized Polymers Prepared by Ring-Opening Metathesis Polymerization of Dendron Bearing Monomers. Macromolecules, 2006, 39, 7241-7249.	4.8	58
104	Multivalent, bifunctional dendrimers prepared by click chemistry. Chemical Communications, 2005, , 5775.	4.1	416
105	Conformation of Intramolecularly Cross-Linked Polymer Nanoparticles on Solid Substrates. Nano Letters, 2005, 5, 1704-1709.	9.1	31
106	Orthogonal Approaches to the Simultaneous and Cascade Functionalization of Macromolecules Using Click Chemistry. Journal of the American Chemical Society, 2005, 127, 14942-14949.	13.7	322
107	Structurally Diverse Dendritic Libraries: A Highly Efficient Functionalization Approach Using Click Chemistry. Macromolecules, 2005, 38, 3663-3678.	4.8	363
108	Dendritic Structures Based on Bis(hydroxymethyl)propionic Acid as Platforms for Surface Reactions. Langmuir, 2005, 21, 4512-4519.	3.5	19

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109	Synthesis and characterization of 2,2-bis(methylol)propionic acid dendrimers with different cores and terminal groups. <i>Journal of Polymer Science Part A</i> , 2004, 42, 1758-1767.	2.3	24
110	Dendronized Aliphatic Polymers by a Combination of ATRP and Divergent Growth. <i>Macromolecules</i> , 2004, 37, 322-329.	4.8	69
111	Rapid and Efficient Synthesis of Aliphatic Ester Dendrons and Dendrimers. <i>Macromolecules</i> , 2002, 35, 8307-8314.	4.8	162
112	Dendritic Oxazoline Ligands in Enantioselective Palladium-Catalyzed Allylic Alkylations. <i>Journal of Organic Chemistry</i> , 2002, 67, 8197-8202.	3.2	25
113	Immobilized oxazoline-containing Ligands in asymmetric catalysis—a review. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 1857-1861.	2.2	35