

Michael Malkoch

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9578973/publications.pdf>

Version: 2024-02-01

113
papers

5,706
citations

101543

36
h-index

79698

73
g-index

119
all docs

119
docs citations

119
times ranked

5962
citing authors

#	ARTICLE	IF	CITATIONS
1	Multivalent, bifunctional dendrimers prepared by click chemistry. <i>Chemical Communications</i> , 2005, , 5775.	4.1	416
2	Structurally Diverse Dendritic Libraries: A Highly Efficient Functionalization Approach Using Click Chemistry. <i>Macromolecules</i> , 2005, 38, 3663-3678.	4.8	363
3	New methodologies in the construction of dendritic materials. <i>Chemical Society Reviews</i> , 2009, 38, 352-362.	38.1	359
4	Orthogonal Approaches to the Simultaneous and Cascade Functionalization of Macromolecules Using Click Chemistry. <i>Journal of the American Chemical Society</i> , 2005, 127, 14942-14949.	13.7	322
5	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
6	Simplifying the synthesis of dendrimers: accelerated approaches. <i>Chemical Society Reviews</i> , 2012, 41, 4593.	38.1	252
7	Rapid and Efficient Synthesis of Aliphatic Ester Dendrons and Dendrimers. <i>Macromolecules</i> , 2002, 35, 8307-8314.	4.8	162
8	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
9	Stability and biocompatibility of a library of polyester dendrimers in comparison to polyamidoamine dendrimers. <i>Biomaterials</i> , 2012, 33, 1970-1981.	11.4	147
10	Dendritic architectures based on bis-MPA: functional polymeric scaffolds for application-driven research. <i>Chemical Society Reviews</i> , 2013, 42, 5858.	38.1	137
11	Click Assisted One-Pot Multi-Step Reactions in Polymer Science: Accelerated Synthetic Protocols. <i>Macromolecular Rapid Communications</i> , 2008, 29, 998-1015.	3.9	135
12	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
13	A chemoselective approach for the accelerated synthesis of well-defined dendritic architectures. <i>Chemical Communications</i> , 2007, , 2249-2251.	4.1	128
14	Role of architecture and molecular weight in the formation of tailor-made ultrathin multilayers using dendritic macromolecules and click chemistry. <i>Journal of Polymer Science Part A</i> , 2007, 45, 2835-2846.	2.3	113
15	Effects of Modulus and Surface Chemistry of Thiol-Ene Photopolymers in Nanoimprinting. <i>Nano Letters</i> , 2007, 7, 233-237.	9.1	101
16	Facile access to internally functionalized dendrimers through efficient and orthogonal click reactions. <i>Chemical Communications</i> , 2010, 46, 1556.	4.1	94
17	Accelerated Growth of Dendrimers via Thiol-Ene and Esterification Reactions. <i>Macromolecules</i> , 2010, 43, 6004-6013.	4.8	90
18	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

#	ARTICLE	IF	CITATIONS
19	Dendronized Aliphatic Polymers by a Combination of ATRP and Divergent Growth. <i>Macromolecules</i> , 2004, 37, 322-329.	4.8	69
20	On the mechanism behind freezing-induced chemical crosslinking in ice-templated cellulose nanofibril aerogels. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19371-19380.	10.3	63
21	Bifunctional Dendronized Cellulose Surfaces as Biosensors. <i>Biomacromolecules</i> , 2011, 12, 2114-2125.	5.4	59
22	Characterization of Poly(norbornene) Dendronized Polymers Prepared by Ring-Opening Metathesis Polymerization of Dendron Bearing Monomers. <i>Macromolecules</i> , 2006, 39, 7241-7249.	4.8	58
23	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
24	Nanogel Encapsulated Hydrogels As Advanced Wound Dressings for the Controlled Delivery of Antibiotics. <i>Advanced Functional Materials</i> , 2021, 31, 2006453.	14.9	58
25	Synthesis and thiol-ene photopolymerization of allyl-ether functionalized dendrimers. <i>Journal of Polymer Science Part A</i> , 2008, 46, 1339-1348.	2.3	57
26	Membrane interactions of microgels as carriers of antimicrobial peptides. <i>Journal of Colloid and Interface Science</i> , 2018, 513, 141-150.	9.4	57
27	pH-triggered self-assembly of biocompatible histamine-functionalized triblock copolymers. <i>Soft Matter</i> , 2013, 9, 82-89.	2.7	55
28	A general strategy for highly efficient nanoparticle dispersing agents based on hybrid dendritic linear block copolymers. <i>Journal of Polymer Science Part A</i> , 2009, 47, 1237-1258.	2.3	53
29	Exhaustive glycosylation, pegylation, and glutathionylation of a [G4] ₄₈ dendrimer via photoinduced thiol-ene coupling. <i>Journal of Polymer Science Part A</i> , 2011, 49, 4468-4475.	2.3	51
30	UV initiated thiol-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
31	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
32	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
33	Multifunctional Poly(ethylene glycol): Synthesis, Characterization, and Potential Applications of Dendritic-Linear-Dendritic Block Copolymer Hybrids. <i>Macromolecules</i> , 2013, 46, 3726-3736.	4.8	43
34	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
35	Highly Adhesive Phenolic Compounds as Interfacial Primers for Bone Fracture Fixations. <i>ACS Applied Materials & Interfaces</i> , 2010, 2, 654-657.	8.0	41
36	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

#	ARTICLE	IF	CITATIONS
37	Reactive imidazole intermediates: simplified synthetic approach to functional aliphatic cyclic carbonates. <i>Polymer Chemistry</i> , 2014, 5, 6651-6655.	3.9	38
38	Evaluation of Amino-Functional Polyester Dendrimers Based on Bis-MPA as Nonviral Vectors for siRNA Delivery. <i>Molecules</i> , 2018, 23, 2028.	3.8	38
39	Europium confined cyclen dendrimers with photophysically active triazoles. <i>Journal of Materials Chemistry</i> , 2008, 18, 2545.	6.7	37
40	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
41	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
42	High-Performance Thiol-ene Composites Unveil a New Era of Adhesives Suited for Bone Repair. <i>Advanced Functional Materials</i> , 2018, 28, 1800372.	14.9	36
43	Immobilized oxazoline-containing Ligands in asymmetric catalysis—a review. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 1857-1861.	2.2	35
44	Localized Click-Chemistry Through Dipen Nanolithography. <i>Advanced Materials</i> , 2007, 19, 4471-4473.	21.0	34
45	Synthesis and characterization of hyperbranched polymers with increased chemical versatility for imprint lithographic resists. <i>Journal of Polymer Science Part A</i> , 2008, 46, 6238-6254.	2.3	34
46	Thiol-ene and thiol-yne-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
47	Conformation of Intramolecularly Cross-Linked Polymer Nanoparticles on Solid Substrates. <i>Nano Letters</i> , 2005, 5, 1704-1709.	9.1	31
48	Dual-purpose PEG scaffolds for the preparation of soft and biofunctional hydrogels: the convergence between CuAAC and thiol-ene reactions. <i>Chemical Communications</i> , 2013, 49, 6938.	4.1	31
49	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
50	A one component methodology for the fabrication of honeycomb films from biocompatible amphiphilic block copolymer hybrids: a linear-dendritic-linear twist. <i>Polymer Chemistry</i> , 2013, 4, 2680.	3.9	29
51	Therapeutic Nanocarriers via Cholesterol Directed Self-Assembly of Well-Defined Linear-Dendritic Polymeric Amphiphiles. <i>Chemistry of Materials</i> , 2017, 29, 3891-3898.	6.7	26
52	Dendritic Oxazoline Ligands in Enantioselective Palladium-Catalyzed Allylic Alkylations. <i>Journal of Organic Chemistry</i> , 2002, 67, 8197-8202.	3.2	25
53	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
54	Accelerated Chemoselective Reactions to Sequence-Controlled Heterolayered Dendrimers. <i>Journal of the American Chemical Society</i> , 2020, 142, 1501-1509.	13.7	25

#	ARTICLE	IF	CITATIONS
55	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
56	Degradable high <i>T_g</i> sugar-derived polycarbonates from isosorbide and dihydroxyacetone. <i>Polymer Chemistry</i> , 2018, 9, 2238-2246.	3.9	24
57	Off-Stoichiometric Thiol-Ene Chemistry to Dendritic Nanogel Therapeutics. <i>Advanced Functional Materials</i> , 2019, 29, 1806693.	14.9	24
58	Advantages of Monodisperse and Chemically Robust Spherical Polyester Dendrimers as a Universal MS Calibrant. <i>Journal of the American Society for Mass Spectrometry</i> , 2014, 25, 303-309.	2.8	22
59	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
60	Sequential interpenetrating poly(ethylene glycol) hydrogels prepared by UV-initiated thiol-ene coupling chemistry. <i>Journal of Polymer Science Part A</i> , 2013, 51, 363-371.	2.3	21
61	Degradable dendritic nanogels as carriers for antimicrobial peptides. <i>Journal of Colloid and Interface Science</i> , 2019, 554, 592-602.	9.4	21
62	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
63	Dendritic Structures Based on Bis(hydroxymethyl)propionic Acid as Platforms for Surface Reactions. <i>Langmuir</i> , 2005, 21, 4512-4519.	3.5	19
64	Dendron-decorated cyanine dyes for optical limiting applications in the range of telecommunication wavelengths. <i>New Journal of Chemistry</i> , 2009, 33, 964.	2.8	18
65	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
66	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
67	Antibiotic-Free Cationic Dendritic Hydrogels as Surgical Site Infection Inhibiting Coatings. <i>Advanced Healthcare Materials</i> , 2019, 8, e1801619.	7.6	18
68	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
69	The first peripherally masked thiol dendrimers: a facile and highly efficient functionalization strategy of polyester dendrimers via one-pot xanthate deprotection/thiol-acrylate Michael addition reactions. <i>Chemical Communications</i> , 2014, 50, 6574-6577.	4.1	17
70	Fluoride-Promoted Esterification (FPE) Chemistry: A Robust Route to Bis-MPA Dendrons and Their Postfunctionalization. <i>Molecules</i> , 2016, 21, 366.	3.8	17
71	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
72	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

#	ARTICLE	IF	CITATIONS
73	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
74	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
75	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
76	Penetration and Accumulation of Dendrons with Different Peripheral Composition in <i>Pseudomonas aeruginosa</i> Biofilms. <i>Nano Letters</i> , 2019, 19, 4327-4333.	9.1	15
77	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
78	Recent advances on crosslinked dendritic networks. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	14
79	Activated dopamine derivatives as primers for adhesive-patch fixation of bone fractures. <i>RSC Advances</i> , 2016, 6, 26398-26405.	3.6	14
80	Synthesis of Heterofunctional Polyester Dendrimers with Internal and External Functionalities as Versatile Multipurpose Platforms. <i>Biomacromolecules</i> , 2020, 21, 4273-4279.	5.4	14
81	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
82	Heterogeneous Rupturing Dendrimers. <i>Journal of the American Chemical Society</i> , 2017, 139, 17660-17666.	13.7	12
83	Self-Assembled Polyester Dendrimer/Cellulose Nanofibril Hydrogels with Extraordinary Antibacterial Activity. <i>Pharmaceutics</i> , 2020, 12, 1139.	4.5	12
84	Radical copolymerization of acrylonitrile with 2,2,2-trifluoroethyl acrylate for dielectric materials: Structure and characterization. <i>Journal of Polymer Science Part A</i> , 2013, 51, 3856-3866.	2.3	11
85	Functional porous membranes from amorphous linear dendritic polyester hybrids. <i>Polymer Chemistry</i> , 2015, 6, 2390-2395.	3.9	11
86	Fluoride-promoted carbonylation polymerization: a facile step-growth technique to polycarbonates. <i>Chemical Science</i> , 2017, 8, 4853-4857.	7.4	11
87	The Dawn of Thiol-Ene Triazine Triones Thermosets as a New Material Platform Suited for Hard Tissue Repair. <i>Advanced Materials</i> , 2018, 30, 1804966.	21.0	10
88	Soft hydrogels from tetra-functional PEGs using UV-induced thiol-ene coupling chemistry: a structure-to-property study. <i>RSC Advances</i> , 2014, 4, 30118.	3.6	9
89	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
90	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

#	ARTICLE	IF	CITATIONS
91	Degradable High Molecular Weight Monodisperse Dendritic Poly(ethylene glycols). <i>Biomacromolecules</i> , 2020, 21, 4294-4301.	5.4	9
92	Novel Therapeutic Platform of Micelles and Nanogels from Dopa-Functionalized Triblock Copolymers. <i>Small</i> , 2021, 17, e2007305.	10.0	9
93	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
94	Highly Customizable Bone Fracture Fixation through the Marriage of Composites and Screws. <i>Advanced Functional Materials</i> , 2021, 31, 2105187.	14.9	8
95	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
96	Nanofibrous nonwovens based on dendritic-linear-dendritic poly(ethylene glycol) hybrids. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45949.	2.6	6
97	Model studies of the sequential and simultaneous statistical modification of dendritic functional groups and their implications within complex polymer architecture synthesis. <i>Polymer Chemistry</i> , 2017, 8, 1644-1653.	3.9	5
98	Facile thiolation of hydroxyl functional polymers. <i>Polymer Chemistry</i> , 2017, 8, 4996-5001.	3.9	5
99	Design of multivalent fluorescent dendritic probes for site-specific labeling of biomolecules. <i>Journal of Polymer Science Part A</i> , 2018, 56, 1609-1616.	2.3	5
100	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
101	Helux: A Heterofunctional Hyperbranched Poly(amido amine) Carboxylate. <i>ACS Applied Polymer Materials</i> , 2019, 1, 1845-1853.	4.4	4
102	Dendritic Polyampholyte-Assisted Formation of Functional Cellulose Nanofibril Materials. <i>Biomacromolecules</i> , 2020, 21, 2856-2863.	5.4	4
103	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
104	Active quinine-based films able to release antimicrobial compounds via melt quaternization at low temperature. <i>Journal of Materials Chemistry B</i> , 2018, 6, 98-104.	5.8	3
105	Bone Repair: High-Performance Thiol-Ene Composites Unveil a New Era of Adhesives Suited for Bone Repair (<i>Adv. Funct. Mater.</i> 26/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870180.	14.9	3
106	Spherical-ESI: A dendrimer-based nine-point calibration solution ranging from m/z 273 to 1716 for electrospray ionization mass spectrometry peptide analysis. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9035.	1.5	3
107	Fluoride-Promoted Esterification with Imidazolide-Activated Compounds: A Modular and Sustainable Approach to Dendrimers. <i>Angewandte Chemie</i> , 2015, 127, 2446-2449.	2.0	2
108	Inside Cover: Bifunctional Dendrimers: From Robust Synthesis and Accelerated One-Pot Postfunctionalization Strategy to Potential Applications (<i>Angew. Chem. Int. Ed.</i> 12/2009). <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2056-2056.	13.8	1

#	ARTICLE	IF	CITATIONS
109	Combination of Coordination and Releasable Covalent Binding for the Delivery of Antisense Therapeutics by Bisphosphonate-Hyaluronan-Oligonucleotide Conjugates. ACS Applied Polymer Materials, 2021, 3, 2197-2210.	4.4	1
110	UV-Cured Antibacterial Hydrogels Based on PEG and Monodisperse Heterofunctional Bis-MPA Dendrimers. Molecules, 2021, 26, 2364.	3.8	1
111	Highly Customizable Bone Fracture Fixation through the Marriage of Composites and Screws (Adv. Tj ETQq1 1 0.784314 rgBT /Overlock 14.9 1		
112	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 (Adv. Funct.) Tj ETQq0 0 0.4rgBT /Overlock 10 T		
113	Electrospinning of hybrid nanofibres elaborated with PEG core dendrimers and SPIONs synthesized in-situ: As multifunctional material for biomedical applications. , 2017, , .		0