

Laura Hartmann

List of Publications by Year in descending order

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93
papers

3,022
citations

136740

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174990

52
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docs citations

98
times ranked

3395
citing authors

#	ARTICLE	IF	CITATIONS
1	Precision Polymers: Monodisperse, Monomer-Sequence-Defined Segments to Target Future Demands of Polymers in Medicine. <i>Advanced Materials</i> , 2009, 21, 3425-3431.	11.1	148
2	Solid-Phase Supported Polymer Synthesis of Sequence-Defined, Multifunctional Poly(amidoamines). <i>Biomacromolecules</i> , 2006, 7, 1239-1244.	2.6	134
3	Sequence-Defined Glycopolymer Segments Presenting Mannose: Synthesis and Lectin Binding Affinity. <i>Biomacromolecules</i> , 2012, 13, 1845-1852.	2.6	132
4	Quantitative mapping of glycoprotein micro-heterogeneity and macro-heterogeneity: an evaluation of mass spectrometry signal strengths using synthetic peptides and glycopeptides. <i>Journal of Mass Spectrometry</i> , 2013, 48, 627-639.	0.7	130
5	Carbohydrate-Lectin Recognition of Sequence-Defined Heteromultivalent Glycooligomers. <i>Journal of the American Chemical Society</i> , 2014, 136, 2008-2016.	6.6	114
6	Nanophase Separated Amphiphilic Conetwork Coatings and Membranes. <i>Macromolecules</i> , 2005, 38, 2431-2438.	2.2	104
7	Amphiphilic conetworks as regenerative controlled releasing antimicrobial coatings. <i>Journal of Controlled Release</i> , 2005, 103, 355-367.	4.8	102
8	Tailor-Made Poly(amidoamine)s for Controlled Complexation and Condensation of DNA. <i>Chemistry - A European Journal</i> , 2008, 14, 2025-2033.	1.7	97
9	Morphology of Photopolymerized End-Linked Poly(ethylene glycol) Hydrogels by Small-Angle X-ray Scattering. <i>Macromolecules</i> , 2010, 43, 6861-6870.	2.2	87
10	Metal-Mediated Molecular Self-Healing in Histidine-Rich Mussel Peptides. <i>Biomacromolecules</i> , 2014, 15, 1644-1652.	2.6	75
11	A novel contact model for AFM indentation experiments on soft spherical cell-like particles. <i>Soft Matter</i> , 2014, 10, 6732.	1.2	71
12	Synthesis of Carbohydrate-Functionalised Sequence-Defined Oligo(amidoamine)s by Photochemical Thiol-Ene Coupling in a Continuous Flow Reactor. <i>Chemistry - A European Journal</i> , 2013, 19, 3090-3098.	1.7	70
13	Polymers for Control Freaks: Sequence-Defined Poly(amidoamine)s and Their Biomedical Applications. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 8-13.	1.1	69
14	The Next 100 Years of Polymer Science. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 2000216.	1.1	69
15	Next Generation of Zinc Bisguanidine Polymerization Catalysts towards Highly Crystalline, Biodegradable Polyesters. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21778-21784.	7.2	63
16	Multivalent display of minimal <i>Clostridium difficile</i> glycan epitopes mimics antigenic properties of larger glycans. <i>Nature Communications</i> , 2016, 7, 11224.	5.8	60
17	Mesoporous Protein Particles Through Colloidal CaCO ₃ Templates. <i>Advanced Functional Materials</i> , 2013, 23, 116-123.	7.8	59
18	Electrochemical displacement sensor based on ferrocene boronic acid tracer and immobilized glycan for saccharide binding proteins and <i>E. coli</i> . <i>Biosensors and Bioelectronics</i> , 2014, 58, 1-8.	5.3	58

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19	Prophylactic Antiviral Activity of Sulfated Glycomimetic Oligomers and Polymers. <i>Journal of the American Chemical Society</i> , 2020, 142, 5252-5265.	6.6	56
20	Sequence-Controlled Glycopolymers via Step-Growth Polymerization of Precision Glycomacromolecules for Lectin Receptor Clustering. <i>Biomacromolecules</i> , 2017, 18, 787-796.	2.6	54
21	Solid-Phase Synthesis of Asymmetrically Branched Sequence-Defined Poly/Oligo(amidoamines). <i>Journal of Organic Chemistry</i> , 2012, 77, 4226-4234.	1.7	46
22	Synthesis of Porous PEG Microgels Using CaCO ₃ Microspheres as Hard Templates. <i>Macromolecular Rapid Communications</i> , 2012, 33, 1049-1054.	2.0	46
23	Development and optimization of a competitive binding assay for the galactophilic low affinity lectin LecA from <i>Pseudomonas aeruginosa</i> . <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 7933-7948.	1.5	45
24	Magnetic Porous Sugar-Functionalized PEG Microgels for Efficient Isolation and Removal of Bacteria from Solution. <i>Biomacromolecules</i> , 2013, 14, 1927-1935.	2.6	44
25	CO ₂ -switchable oligoamine patches based on amino acids and their use to build polyelectrolyte containers with intelligent gating. <i>Soft Matter</i> , 2008, 4, 534.	1.2	41
26	Mechanical Carbohydrate Sensors Based on Soft Hydrogel Particles. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6084-6087.	7.2	41
27	Precise redox-sensitive cleavage sites for improved bioactivity of siRNA lipopolyplexes. <i>Nanoscale</i> , 2016, 8, 18098-18104.	2.8	40
28	Sequence Positioning of Disulfide Linkages to Program the Degradation of Monodisperse Poly(amidoamines). <i>Macromolecules</i> , 2007, 40, 7771-7776.	2.2	39
29	Toward the development of an artificial cornea: Improved stability of interpenetrating polymer networks. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011, 98B, 8-17.	1.6	39
30	Recent Developments in Solid-Phase Strategies towards Synthetic, Sequence-Defined Macromolecules. <i>Chemistry - an Asian Journal</i> , 2018, 13, 3611-3622.	1.7	37
31	Synthesis and functionalization of poly(ethylene glycol) microparticles as soft colloidal probes for adhesion energy measurements. <i>Soft Matter</i> , 2012, 8, 1664-1672.	1.2	35
32	Biodegradable poly(amidoamine)s with uniform degradation fragments via sequence-controlled macromonomers. <i>Polymer Chemistry</i> , 2016, 7, 7086-7093.	1.9	34
33	Biocompatibility of poly(ethylene glycol) and poly(acrylic acid) interpenetrating network hydrogel by intrastromal implantation in rabbit cornea. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 3157-3165.	2.1	33
34	Precise Positioning of Chiral Building Blocks in Monodisperse, Sequence-Defined Polyamides. <i>Macromolecular Rapid Communications</i> , 2011, 32, 197-202.	2.0	31
35	Probing multivalency in ligand-receptor-mediated adhesion of soft, biomimetic interfaces. <i>Beilstein Journal of Organic Chemistry</i> , 2015, 11, 720-729.	1.3	30
36	Linear Precision Glycomacromolecules with Varying Interligand Spacing and Linker Functionalities Binding to Concanavalin A and the Bacterial Lectin FimH. <i>Macromolecular Bioscience</i> , 2017, 17, 1700198.	2.1	30

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37	Presenting Precision Glycomacromolecules on Gold Nanoparticles for Increased Lectin Binding. <i>Polymers</i> , 2017, 9, 716.	2.0	29
38	Elastic Modulus Dependence on the Specific Adhesion of Hydrogels. <i>Advanced Functional Materials</i> , 2017, 27, 1702040.	7.8	26
39	Photoswitchable precision glycooligomers and their lectin binding. <i>Beilstein Journal of Organic Chemistry</i> , 2014, 10, 1603-1612.	1.3	25
40	Toward Orthogonal Preparation of Sequence-Defined Monodisperse Heteromultivalent Glycomacromolecules on Solid Support Using Staudinger Ligation and Copper-Catalyzed Click Reactions. <i>Journal of Organic Chemistry</i> , 2017, 82, 9400-9409.	1.7	25
41	Fucose-Functionalized Precision Glycomacromolecules Targeting Human Norovirus Capsid Protein. <i>Biomacromolecules</i> , 2018, 19, 3714-3724.	2.6	25
42	Specific Adhesion of Carbohydrate Hydrogel Particles in Competition with Multivalent Inhibitors Evaluated by AFM. <i>Langmuir</i> , 2014, 30, 6142-6150.	1.6	23
43	Split-and-Combine Approach Towards Branched Precision Glycomacromolecules and Their Lectin Binding Behavior. <i>Chemistry - A European Journal</i> , 2018, 24, 1619-1630.	1.7	23
44	Sequence-Defined Heteromultivalent Precision Glycomacromolecules Bearing Sulfonated/Sulfated Nonglycosidic Moieties Preferentially Bind Galectin-3 and Delay Wound Healing of a Galectin-3 Positive Tumor Cell Line in an In Vitro Wound Scratch Assay. <i>Macromolecular Bioscience</i> , 2020, 20, e2000163.	2.1	22
45	Synthesis of homo- and heteromultivalent carbohydrate-functionalized oligo(amidoamines) using novel glyco-building blocks. <i>Beilstein Journal of Organic Chemistry</i> , 2013, 9, 2395-2403.	1.3	21
46	Multivalent Binding of Precision Glycooligomers on Soft Glycocalyx Mimicking Hydrogels. <i>Biomacromolecules</i> , 2018, 19, 3479-3488.	2.6	21
47	Sequence-Defined Introduction of Hydrophobic Motifs and Effects in Lectin Binding of Precision Glycomacromolecules. <i>Macromolecular Bioscience</i> , 2019, 19, 1800425.	2.1	21
48	Amphiphilic Cationic β 3R3-Peptides: Membrane Active Peptidomimetics and Their Potential as Antimicrobial Agents. <i>Biomacromolecules</i> , 2014, 15, 1687-1695.	2.6	20
49	Asymmetrically Branched Precision Glycooligomers Targeting Langerin. <i>Biomacromolecules</i> , 2019, 20, 4088-4095.	2.6	19
50	Synthesis of Porphyrin and Bacteriochlorin Glycoconjugates through CuAAC Reaction Tuning. <i>European Journal of Organic Chemistry</i> , 2019, 2019, 6496-6503.	1.2	19
51	Sequence-Controlled High Molecular Weight Glyco(oligoamide)-PEG Multiblock Copolymers as Ligands and Inhibitors in Lectin Binding. <i>Macromolecules</i> , 2018, 51, 5608-5619.	2.2	18
52	Effects of linker and liposome anchoring on lactose-functionalized glycomacromolecules as multivalent ligands for binding galectin-3. <i>RSC Advances</i> , 2019, 9, 23484-23497.	1.7	17
53	Multivalent Interactions of Polyamide Based Sequence-Controlled Glycomacromolecules with Concanavalin A. <i>Macromolecular Bioscience</i> , 2019, 19, e1900033.	2.1	17
54	Controlling the Surface Functionalization of Ultrasmall Gold Nanoparticles by Sequence-Defined Macromolecules. <i>Chemistry - A European Journal</i> , 2021, 27, 1451-1464.	1.7	17

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55	Synthesis of Brush-Like Glycopolymers with Monodisperse, Sequence-Defined Side Chains and Their Interactions with Plant and Animal Lectins. <i>Macromolecular Rapid Communications</i> , 2020, 41, e1900459.	2.0	16
56	Sequence-defined positioning of amine and amide residues to control catechol driven wet adhesion. <i>Chemical Science</i> , 2020, 11, 9919-9924.	3.7	16
57	Monodisperse Sequence-Controlled α -Fucosylated Glycooligomers and Their Multivalent Inhibitory Effects on LecB. <i>Macromolecular Bioscience</i> , 2018, 18, 1800337.	2.1	15
58	Quantification of protein-materials interaction by soft colloidal probe spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 3014-3018.	1.3	14
59	Photosensitive Peptidomimetic for Light-Controlled, Reversible DNA Compaction. <i>Biomacromolecules</i> , 2016, 17, 1959-1968.	2.6	14
60	Heteromultivalent Glycooligomers as Mimetics of Blood Group Antigens. <i>Chemistry - A European Journal</i> , 2019, 25, 3301-3309.	1.7	14
61	Exploiting Oligo(amido amine) Backbones for the Multivalent Presentation of Coiled-Coil Peptides. <i>Biomacromolecules</i> , 2015, 16, 2394-2402.	2.6	13
62	Highly Fluorescent Merocyanine and Cyanine PMMA Copolymers. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800277.	2.0	13
63	Reloadable antimicrobial coatings based on amphiphilic silicone networks. <i>Surface Coatings International Part B: Coatings Transactions</i> , 2005, 88, 49-53.	0.3	12
64	β 2R3-Peptides: design and synthesis of novel peptidomimetics and their self-assembling properties at the air-water interface. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 5399.	1.5	11
65	Combinatorial Screening for Specific Drug Solubilizers with Switchable Release Profiles. <i>Macromolecular Bioscience</i> , 2015, 15, 82-89.	2.1	11
66	Cu Elimination from Cu-Coordinating Macromolecules. <i>ACS Macro Letters</i> , 2017, 6, 399-403.	2.3	11
67	Fast curing of polyhydroxyurethanes via ring opening polyaddition of low viscosity cyclic carbonates and amines. <i>Polymer Chemistry</i> , 2020, 11, 6964-6970.	1.9	11
68	Divalent Sialylated Precision Glycooligomers Binding to Polyomaviruses and the Effect of Different Linkers. <i>Macromolecular Bioscience</i> , 2019, 19, 1800426.	2.1	10
69	Progress, challenges and future directions of heterocycles as building blocks in iterative methodologies towards sequence-defined oligomers and polymers. <i>Polymer Chemistry</i> , 2021, 12, 4439-4450.	1.9	9
70	Catechol-functionalized sequence-defined glycomacromolecules as covalent inhibitors of bacterial adhesion. <i>Polymer Chemistry</i> , 2020, 11, 6091-6096.	1.9	8
71	Effect of PEGylation on Receptor Anchoring and Steric Shielding at Interfaces: An Adhesion and Surface Plasmon Resonance Study with Precision Polymers. <i>Biomacromolecules</i> , 2020, 21, 4850-4856.	2.6	7
72	Lewis Base-Bronsted Acid-Enzyme Catalysis in Enantioselective Multistep One-Pot Syntheses. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16700-16706.	7.2	7

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73	Synthesis of highly controlled carbohydrate-polymer based hybrid structures by combining heparin fragments and sialic acid derivatives, and solid phase polymer synthesis. <i>Chemical Communications</i> , 2018, 54, 10487-10490.	2.2	6
74	Recovery, Purification, and Reusability of Building Blocks for Solid Phase Synthesis. <i>Macromolecular Rapid Communications</i> , 2020, 41, 1900473.	2.0	6
75	Thermally Controlled Acceleration of Epoxy Resin Curing through Polymer-Bound Imidazole Derivatives with High Latency. <i>ACS Applied Polymer Materials</i> , 2022, 4, 1150-1158.	2.0	6
76	Recent Advances in Solid Phase Polymer Synthesis: Polyamides from Tailor-Made Building Blocks. <i>ACS Symposium Series</i> , 2014, , 85-101.	0.5	5
77	Human biomonitoring of aluminium after a single, controlled manual metal arc inert gas welding process of an aluminium-containing worksheet in nonwelders. <i>International Archives of Occupational and Environmental Health</i> , 2015, 88, 913-923.	1.1	5
78	Self-assembly of cholesterol tethered within hydrogel networks. <i>Polymer</i> , 2016, 84, 371-382.	1.8	5
79	Exploring Cyclic Sulfamidate Building Blocks for the Synthesis of Sequence-Defined Macromolecules. <i>Macromolecular Rapid Communications</i> , 2021, 42, e2100193.	2.0	5
80	Modeling of Multivalent Ligand-Receptor Binding Measured by kinITC. <i>Computation</i> , 2019, 7, 46.	1.0	4
81	PEGylated sequence-controlled macromolecules using supramolecular binding to target the Taspase1/Importin β interaction. <i>Chemical Communications</i> , 2021, 57, 3091-3094.	2.2	4
82	Enabling Directional Sequence-Control via Step-Growth Polymerization of Heterofunctionalized Precision Macromonomers. <i>Macromolecular Rapid Communications</i> , 2019, 40, 1800735.	2.0	3
83	Synthesis and self-assembly of amphiphilic precision glycomacromolecules. <i>Polymer Chemistry</i> , 2021, 12, 4795-4802.	1.9	2
84	Take your Positions and Shine: Effects of Positioning Aggregation-Induced Emission Luminophores within Sequence-Defined Macromolecules. <i>Chemistry - A European Journal</i> , 2021, 27, 10186-10192.	1.7	2
85	Young Talents in Polymer Science. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 124-125.	1.1	1
86	Preparation of multivalent glycan micro- and nano-arrays: general discussion. <i>Faraday Discussions</i> , 2019, 219, 128-137.	1.6	1
87	Polymers for the Future. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 2000077.	1.1	1
88	Ammonium Carbamate Functionalization of Microgels for pH-Sensitive Loading and Release of Anionic and Cationic Molecules. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 90-95.	1.1	0
89	Rising Stars in Polymer Science. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 317-318.	1.1	0
90	Multidimensional micro- and nano-printing technologies: general discussion. <i>Faraday Discussions</i> , 2019, 219, 73-76.	1.6	0

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91	Glycan interactions on glycocalyx mimetic surfaces: general discussion. Faraday Discussions, 2019, 219, 183-188.	1.6	0
92	New directions in surface functionalization and characterization: general discussion. Faraday Discussions, 2019, 219, 252-261.	1.6	0
93	Chapter 2. Glycopolymers. RSC Polymer Chemistry Series, 2016, , 31-65.	0.1	0