

Kanjiro Miyata

List of Publications by Year in descending order

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107
papers

9,870
citations

36303

51
h-index

34986

98
g-index

116
all docs

116
docs citations

116
times ranked

9757
citing authors

#	ARTICLE	IF	CITATIONS
1	Block Copolymer Micelles in Nanomedicine Applications. <i>Chemical Reviews</i> , 2018, 118, 6844-6892.	47.7	925
2	Rational design of smart supramolecular assemblies for gene delivery: chemical challenges in the creation of artificial viruses. <i>Chemical Society Reviews</i> , 2012, 41, 2562-2574.	38.1	436
3	Polymeric micelles for nano-scale drug delivery. <i>Reactive and Functional Polymers</i> , 2011, 71, 227-234.	4.1	402
4	PEG-Detachable Polyplex Micelles Based on Disulfide-Linked Block Cationomers as Bioresponsive Nonviral Gene Vectors. <i>Journal of the American Chemical Society</i> , 2008, 130, 6001-6009.	13.7	387
5	Block Cationomer Polyplexes with Regulated Densities of Charge and Disulfide Cross-Linking Directed To Enhance Gene Expression. <i>Journal of the American Chemical Society</i> , 2004, 126, 2355-2361.	13.7	383
6	Recent progress in development of siRNA delivery vehicles for cancer therapy. <i>Advanced Drug Delivery Reviews</i> , 2016, 104, 61-77.	13.7	346
7	Light-induced gene transfer from packaged DNA enveloped in a dendrimeric photosensitizer. <i>Nature Materials</i> , 2005, 4, 934-941.	27.5	330
8	Polyplexes from Poly(aspartamide) Bearing 1,2-Diaminoethane Side Chains Induce pH-Selective, Endosomal Membrane Destabilization with Amplified Transfection and Negligible Cytotoxicity. <i>Journal of the American Chemical Society</i> , 2008, 130, 16287-16294.	13.7	328
9	Environment-Responsive Block Copolymer Micelles with a Disulfide Cross-Linked Core for Enhanced siRNA Delivery. <i>Biomacromolecules</i> , 2009, 10, 119-127.	5.4	301
10	Targeting the Notch-regulated non-coding RNA TUG1 for glioma treatment. <i>Nature Communications</i> , 2016, 7, 13616.	12.8	267
11	Charge-Conversion Ternary Polyplex with Endosome Disruption Moiety: A Technique for Efficient and Safe Gene Delivery. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 5163-5166.	13.8	206
12	PEGylated Polyplex Micelles from Triblock Cationomers with Spatially Ordered Layering of Condensed pDNA and Buffering Units for Enhanced Intracellular Gene Delivery. <i>Journal of the American Chemical Society</i> , 2005, 127, 2810-2811.	13.7	204
13	A Phenylboronate-Functionalized Polyion Complex Micelle for ATP-Triggered Release of siRNA. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10751-10755.	13.8	200
14	Odd-Even Effect of Repeating Aminoethylene Units in the Side Chain of N-Substituted Polyaspartamides on Gene Transfection Profiles. <i>Journal of the American Chemical Society</i> , 2011, 133, 15524-15532.	13.7	199
15	A PEG-Based Biocompatible Block Cationomer with High Buffering Capacity for the Construction of Polyplex Micelles Showing Efficient Gene Transfer toward Primary Cells. <i>ChemMedChem</i> , 2006, 1, 439-444.	3.2	193
16	Targeted Polymeric Micelles for siRNA Treatment of Experimental Cancer by Intravenous Injection. <i>ACS Nano</i> , 2012, 6, 5174-5189.	14.6	186
17	Three-layered polyplex micelle as a multifunctional nanocarrier platform for light-induced systemic gene transfer. <i>Nature Communications</i> , 2014, 5, 3545.	12.8	167
18	Enhanced endosomal escape of siRNA-incorporating hybrid nanoparticles from calcium phosphate and PEG-block charge-conversional polymer for efficient gene knockdown with negligible cytotoxicity. <i>Biomaterials</i> , 2011, 32, 3106-3114.	11.4	157

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19	Polyplex Micelles with Cyclic RGD Peptide Ligands and Disulfide Cross-Links Directing to the Enhanced Transfection via Controlled Intracellular Trafficking. <i>Molecular Pharmaceutics</i> , 2008, 5, 1080-1092.	4.6	131
20	Virus-Mimicking Chimaeric Polymersomes Boost Targeted Cancer siRNA Therapy In Vivo. <i>Advanced Materials</i> , 2017, 29, 1703285.	21.0	130
21	Precise Engineering of siRNA Delivery Vehicles to Tumors Using Polyion Complexes and Gold Nanoparticles. <i>ACS Nano</i> , 2014, 8, 8979-8991.	14.6	126
22	Freeze-dried formulations for in vivo gene delivery of PEGylated polyplex micelles with disulfide crosslinked cores to the liver. <i>Journal of Controlled Release</i> , 2005, 109, 15-23.	9.9	122
23	Polyion complex stability and gene silencing efficiency with a siRNA-grafted polymer delivery system. <i>Biomaterials</i> , 2010, 31, 8097-8105.	11.4	122
24	Introduction of stearyl moieties into a biocompatible cationic polyaspartamide derivative, PAsp(DET), with endosomal escaping function for enhanced siRNA-mediated gene knockdown. <i>Journal of Controlled Release</i> , 2010, 145, 141-148.	9.9	114
25	Modulated Protonation of Side Chain Aminoethylene Repeats in N-Substituted Polyaspartamides Promotes mRNA Transfection. <i>Journal of the American Chemical Society</i> , 2014, 136, 12396-12405.	13.7	113
26	Actively-targeted polyion complex micelles stabilized by cholesterol and disulfide cross-linking for systemic delivery of siRNA to solid tumors. <i>Biomaterials</i> , 2014, 35, 7887-7895.	11.4	113
27	Systemic Brain Delivery of Antisense Oligonucleotides across the Blood-Brain Barrier with a Glucose-Coated Polymeric Nanocarrier. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 8173-8180.	13.8	113
28	In situ quantitative monitoring of polyplexes and polyplex micelles in the blood circulation using intravital real-time confocal laser scanning microscopy. <i>Journal of Controlled Release</i> , 2011, 151, 104-109.	9.9	110
29	Systemic siRNA delivery to a spontaneous pancreatic tumor model in transgenic mice by PEGylated calcium phosphate hybrid micelles. <i>Journal of Controlled Release</i> , 2014, 178, 18-24.	9.9	108
30	Pancreatic cancer therapy by systemic administration of VEGF siRNA contained in calcium phosphate/charge-conversional polymer hybrid nanoparticles. <i>Journal of Controlled Release</i> , 2012, 161, 868-874.	9.9	103
31	Acidic pH-Responsive siRNA Conjugate for Reversible Carrier Stability and Accelerated Endosomal Escape with Reduced IFN- α -Associated Immune Response. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6218-6221.	13.8	103
32	Smart polymeric micelles for gene and drug delivery. <i>Drug Discovery Today: Technologies</i> , 2005, 2, 21-26.	4.0	102
33	Polyplex micelles prepared from γ -cholesteryl PEG-polycation block copolymers for systemic gene delivery. <i>Biomaterials</i> , 2011, 32, 652-663.	11.4	101
34	DNA/RNA heteroduplex oligonucleotide for highly efficient gene silencing. <i>Nature Communications</i> , 2015, 6, 7969.	12.8	99
35	Smart Multilayered Assembly for Biocompatible siRNA Delivery Featuring Dissolvable Silica, Endosome-Disrupting Polycation, and Detachable PEG. <i>ACS Nano</i> , 2012, 6, 6693-6705.	14.6	92
36	Effect of Polymer Structure on Micelles Formed between siRNA and Cationic Block Copolymer Comprising Thiols and Amidines. <i>Biomacromolecules</i> , 2011, 12, 3174-3185.	5.4	89

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37	Targeted systemic delivery of siRNA to cervical cancer model using cyclic RGD-installed unimer polyion complex-assembled gold nanoparticles. <i>Journal of Controlled Release</i> , 2016, 244, 247-256.	9.9	87
38	Antiangiogenic gene therapy of experimental pancreatic tumor by sFlt-1 plasmid DNA carried by RGD-modified crosslinked polyplex micelles. <i>Journal of Controlled Release</i> , 2011, 149, 51-57.	9.9	86
39	siRNA-Based Therapy Ameliorates Glomerulonephritis. <i>Journal of the American Society of Nephrology: JASN</i> , 2010, 21, 622-633.	6.1	84
40	Glucose-linked sub-50-nm unimer polyion complex-assembled gold nanoparticles for targeted siRNA delivery to glucose transporter 1-overexpressing breast cancer stem-like cells. <i>Journal of Controlled Release</i> , 2019, 295, 268-277.	9.9	82
41	Polyion Complex Micelles of pDNA with Acetal-poly(ethylene glycol)-poly(2-(dimethylamino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overl... Relevant to Gene Transfection Efficacy. <i>Biomacromolecules</i> , 2004, 5, 2128-2136.	5.4	78
42	siRNA delivery from triblock copolymer micelles with spatially-ordered compartments of PEG shell, siRNA-loaded intermediate layer, and hydrophobic core. <i>Biomaterials</i> , 2014, 35, 4548-4556.	11.4	76
43	Cholesterol-functionalized DNA/RNA heteroduplexes cross the blood-brain barrier and knock down genes in the rodent CNS. <i>Nature Biotechnology</i> , 2021, 39, 1529-1536.	17.5	75
44	Enhanced stability and gene silencing ability of siRNA-loaded polyion complexes formulated from polyaspartamide derivatives with a repetitive array of amino groups in the side chain. <i>Biomaterials</i> , 2012, 33, 2770-2779.	11.4	73
45	Secondary-Structure-Driven Self-Assembly of Reactive Polypept(oides): Controlling Size, Shape, and Function of Core Cross-Linked Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9608-9613.	13.8	69
46	Influence of RNA Strand Rigidity on Polyion Complex Formation with Block Cationomers. <i>Macromolecular Rapid Communications</i> , 2016, 37, 486-493.	3.9	67
47	Direct and instantaneous observation of intravenously injected substances using intravital confocal micro-videography. <i>Biomedical Optics Express</i> , 2010, 1, 1209.	2.9	62
48	Optimized rod length of polyplex micelles for maximizing transfection efficiency and their performance in systemic gene therapy against stroma-rich pancreatic tumors. <i>Biomaterials</i> , 2014, 35, 5359-5368.	11.4	62
49	Self-Assembly of siRNA/PEG-Cationomer at Integer Molar Ratio into 100 nm-Sized Vesicular Polyion Complexes (siRNAsomes) for RNAi and Codelivery of Cargo Macromolecules. <i>Journal of the American Chemical Society</i> , 2019, 141, 3699-3709.	13.7	54
50	In vivo rendezvous of small nucleic acid drugs with charge-matched block cationomers to target cancers. <i>Nature Communications</i> , 2019, 10, 1894.	12.8	53
51	siRNA-Loaded Polyion Complex Micelle Decorated with Charge-Conversional Polymer Tuned to Undergo Stepwise Response to Intra-Tumoral and Intra-Endosomal pHs for Exerting Enhanced RNAi Efficacy. <i>Biomacromolecules</i> , 2016, 17, 246-255.	5.4	48
52	Fine-Tuning of Hydrophobicity in Amphiphilic Polyaspartamide Derivatives for Rapid and Transient Expression of Messenger RNA Directed Toward Genome Engineering in Brain. <i>ACS Central Science</i> , 2019, 5, 1866-1875.	11.3	48
53	Polyplex Micelles from Triblock Copolymers Composed of Tandemly Aligned Segments with Biocompatible, Endosomal Escaping, and DNA-Condensing Functions for Systemic Gene Delivery to Pancreatic Tumor Tissue. <i>Pharmaceutical Research</i> , 2008, 25, 2924-2936.	3.5	45
54	Fine-Tuning of Charge-Conversion Polymer Structure for Efficient Endosomal Escape of siRNA-Loaded Calcium Phosphate Hybrid Micelles. <i>Macromolecular Rapid Communications</i> , 2014, 35, 1211-1215.	3.9	44

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55	PEG-based block cationers possessing DNA anchoring and endosomal escaping functions to form polyplex micelles with improved stability and high transfection efficacy. <i>Journal of Controlled Release</i> , 2007, 122, 252-260.	9.9	43
56	Multifunctional polyion complex micelle featuring enhanced stability, targetability, and endosome escapability for systemic siRNA delivery to subcutaneous model of lung cancer. <i>Drug Delivery and Translational Research</i> , 2014, 4, 50-60.	5.8	43
57	Systemic delivery of siRNA by actively targeted polyion complex micelles for silencing the E6 and E7 human papillomavirus oncogenes. <i>Journal of Controlled Release</i> , 2016, 231, 29-37.	9.9	42
58	Inhibition of PRDM14 expression in pancreatic cancer suppresses cancer stem-like properties and liver metastasis in mice. <i>Carcinogenesis</i> , 2017, 38, 638-648.	2.8	42
59	Functionalization of silica nanoparticles for nucleic acid delivery. <i>Nano Research</i> , 2018, 11, 5219-5239.	10.4	41
60	Synthetic miR-143 Exhibited an Anti-Cancer Effect via the Downregulation of K-RAS Networks of Renal Cell Cancer Cells In Vitro and In Vivo. <i>Molecular Therapy</i> , 2019, 27, 1017-1027.	8.2	39
61	PEG-detachable cationic polyaspartamide derivatives bearing stearyl moieties for systemic siRNA delivery toward subcutaneous BxPC3 pancreatic tumor. <i>Journal of Drug Targeting</i> , 2012, 20, 33-42.	4.4	38
62	Accelerated Polymer-Polymer Click Conjugation by Freeze-Thaw Treatment. <i>Bioconjugate Chemistry</i> , 2012, 23, 1503-1506.	3.6	36
63	Enhanced Intracellular Delivery of siRNA by Controlling ATP-Responsivity of Phenylboronic Acid-Functionalized Polyion Complex Micelles. <i>Macromolecular Bioscience</i> , 2018, 18, 1700357.	4.1	34
64	Tuned Density of Anti-Tissue Factor Antibody Fragment onto siRNA-Loaded Polyion Complex Micelles for Optimizing Targetability into Pancreatic Cancer Cells. <i>Biomacromolecules</i> , 2018, 19, 2320-2329.	5.4	34
65	Clinical Translation of Self-Assembled Cancer Nanomedicines. <i>Advanced Therapeutics</i> , 2021, 4, .	3.2	34
66	Synthetic Polyamines to Regulate mRNA Translation through the Preservative Binding of Eukaryotic Initiation Factor 4E to the Cap Structure. <i>Journal of the American Chemical Society</i> , 2016, 138, 1478-1481.	13.7	33
67	MicroRNAs Induce Epigenetic Reprogramming and Suppress Malignant Phenotypes of Human Colon Cancer Cells. <i>PLoS ONE</i> , 2015, 10, e0127119.	2.5	32
68	Enhanced target recognition of nanoparticles by cocktail PEGylation with chains of varying lengths. <i>Chemical Communications</i> , 2016, 52, 1517-1519.	4.1	31
69	Nanodevices for studying nano-pathophysiology. <i>Advanced Drug Delivery Reviews</i> , 2014, 74, 35-52.	13.7	30
70	Enhanced transfection with silica-coated polyplexes loading plasmid DNA. <i>Biomaterials</i> , 2010, 31, 4764-4770.	11.4	29
71	Silica nanogelling of environment-responsive PEGylated polyplexes for enhanced stability and intracellular delivery of siRNA. <i>Biomaterials</i> , 2013, 34, 562-570.	11.4	29
72	Small Delivery Vehicles of siRNA for Enhanced Cancer Targeting. <i>Biomacromolecules</i> , 2018, 19, 2377-2390.	5.4	28

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73	Enteral siRNA delivery technique for therapeutic gene silencing in the liver via the lymphatic route. <i>Scientific Reports</i> , 2015, 5, 17035.	3.3	26
74	Proliferation-associated long noncoding RNA, <i>TMPOAS1</i> , is a potential therapeutic target for triple-negative breast cancer. <i>Cancer Science</i> , 2020, 111, 2440-2450.	3.9	26
75	Cancer-Specific Targeting of Taurine-Upregulated Gene 1 Enhances the Effects of Chemotherapy in Pancreatic Cancer. <i>Cancer Research</i> , 2021, 81, 1654-1666.	0.9	22
76	Dually Stabilized Triblock Copolymer Micelles with Hydrophilic Shell and Hydrophobic Interlayer for Systemic Antisense Oligonucleotide Delivery to Solid Tumor. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 5770-5780.	5.2	21
77	Bioresponsive Polymer-Based Nucleic Acid Carriers. <i>Advances in Genetics</i> , 2014, 88, 289-323.	1.8	18
78	Bevacizumab and Aflibercept Activate Platelets via FcγR1a. , 2015, 56, 8075.		17
79	Noncovalent Stabilization of Vesicular Polyion Complexes with Chemically Modified/Single-Stranded Oligonucleotides and PEG- <i>b</i> -guanidinylated Polypeptides for Intracavity Encapsulation of Effector Enzymes Aimed at Cooperative Gene Knockdown. <i>Biomacromolecules</i> , 2020, 21, 4365-4376.	5.4	17
80	Structural tuning of oligonucleotides for enhanced blood circulation properties of unit polyion complexes prepared from two-branched poly(ethylene glycol)-block-poly(L-lysine). <i>Journal of Controlled Release</i> , 2021, 330, 812-820.	9.9	15
81	Anti-cancer Effects of a Chemically Modified miR-143 on Bladder Cancer by Either Systemic or Intravesical Treatment. <i>Molecular Therapy - Methods and Clinical Development</i> , 2019, 13, 290-302.	4.1	14
82	Star-Polymer-DNA Gels Showing Highly Predictable and Tunable Mechanical Responses. <i>Advanced Materials</i> , 2022, 34, e2108818.	21.0	14
83	Smart polymeric nanocarriers for small nucleic acid delivery. <i>Drug Discoveries and Therapeutics</i> , 2016, 10, 236-247.	1.5	13
84	Tunable nonenzymatic degradability of <i>N</i> -substituted polyaspartamide main chain by amine protonation and alkyl spacer length in side chains for enhanced messenger RNA transfection efficiency. <i>Science and Technology of Advanced Materials</i> , 2019, 20, 105-115.	6.1	13
85	Sekundärstruktur als Triebkraft für die Selbstorganisation reaktiver Polypept(o)ide: Steuerung von Größe, Form und Funktion kernvernetzter Nanostrukturen. <i>Angewandte Chemie</i> , 2017, 129, 9737-9742.	2.0	12
86	Systemic Brain Delivery of Antisense Oligonucleotides across the Blood-Brain Barrier with a Glucose-Coated Polymeric Nanocarrier. <i>Angewandte Chemie</i> , 2020, 132, 8250-8257.	2.0	10
87	Fine-tuning of polyaspartamide derivatives with alicyclic moieties for systemic mRNA delivery. <i>Journal of Controlled Release</i> , 2022, 342, 148-156.	9.9	10
88	Polydopamine-Mediated Surface Functionalization of Exosomes. <i>ChemNanoMat</i> , 2021, 7, 592-595.	2.8	8
89	Synthetic molecule libraries for nucleic acid delivery: Design parameters in cationic/ionizable lipids and polymers. <i>Drug Metabolism and Pharmacokinetics</i> , 2022, 42, 100428.	2.2	8
90	Experimental Comparison of Bond Lifetime and Viscoelastic Relaxation in Transient Networks with Well-Controlled Structures. <i>ACS Macro Letters</i> , 2022, 11, 753-759.	4.8	8

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91	Bioinspired Silicification of mRNA-Loaded Polyion Complexes for Macrophage-Targeted mRNA Delivery. ACS Applied Bio Materials, 2021, 4, 7790-7799.	4.6	7
92	Preparation of Polyion Complex Micelles Using Block Copolymers for siRNA Delivery. Methods in Molecular Biology, 2016, 1364, 89-103.	0.9	6
93	Block cationer with flexible cationic segment enhances complexation with siRNA and the delivery performance in vitro. Science and Technology of Advanced Materials, 2021, 22, 850-863.	6.1	6
94	Size-tunable PEG-grafted copolymers as a polymeric nanoruler for passive targeting muscle tissues. Journal of Controlled Release, 2022, 347, 607-614.	9.9	6
95	Fine-Tuning of Repeating Aminoethylene Units in Poly(aspartamide) Side Chains for Enhanced siRNA Delivery. ACS Symposium Series, 2013, , 189-196.	0.5	5
96	Multilayered polyion complexes with dissolvable silica layer covered by controlling densities of cRGD-conjugated PEG chains for cancer-targeted siRNA delivery. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 1109-1123.	3.5	5
97	A 50-nm-Sized Micellar Assembly of Thermoresponsive Polymer-Antisense Oligonucleotide Conjugates for Enhanced Gene Knockdown in Lung Cancer by Intratracheal Administration. Advanced Therapeutics, 2020, 3, 1900123.	3.2	5
98	Halofuginone micelle nanoparticles eradicate Nrf2-activated lung adenocarcinoma without systemic toxicity. Free Radical Biology and Medicine, 2022, 187, 92-104.	2.9	5
99	Installation of a Thermoswitchable Hydrophobic Domain into a Unimer Polyion Complex for Enhanced Cellular Uptake of siRNA. Bioconjugate Chemistry, 2020, 31, 1320-1326.	3.6	4
100	Dynamic Stabilization of Unit Polyion Complexes Incorporating Small Interfering RNA by Fine-Tuning of Cationic Block Length in Two-Branched Poly(ethylene glycol)- <i>b</i> -poly(<i>l</i> -lysine). Biomacromolecules, 2022, 23, 388-397.	5.4	3
101	Photo-reactive oligodeoxynucleotide-embedded nanovesicles (PROsomes) with switchable stability for efficient cellular uptake and gene knockdown. Chemical Communications, 2020, 56, 9477-9480.	4.1	2
102	Å¼ctitelbild: A Phenylboronate-Functionalized Polyion Complex Micelle for ATP-Trigged Release of siRNA (Angew. Chem. 43/2012). Angewandte Chemie, 2012, 124, 11062-11062.	2.0	0
103	Development of Nucleic Acid Delivery System Based on Polymeric Materials. Drug Delivery System, 2015, 30, 363-370.	0.0	0
104	42nd Annual Meeting & Exposition of Controlled Release Society(CRS). Drug Delivery System, 2015, 30, 402-404.	0.0	0
105	Precisely regulated nanoarchitecture comprised of gold nanotemplate and unimer polyion complex for systemic delivery of siRNA. Journal of Controlled Release, 2015, 213, e75-e76.	9.9	0
106	Macromol. Rapid Commun. 6/2016. Macromolecular Rapid Communications, 2016, 37, 560-560.	3.9	0
107	Nanoscale self-assemblies of PEG-poly(amino acid) block copolymers: Polymeric micellar DDS. Drug Delivery System, 2016, 31, 283-292.	0.0	0