

Kanjiro Miyata

List of Publications by Year in descending order

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107
papers

9,870
citations

36203

51
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34900

98
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116
all docs

116
docs citations

116
times ranked

9757
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthetic molecule libraries for nucleic acid delivery: Design parameters in cationic/ionizable lipids and polymers. <i>Drug Metabolism and Pharmacokinetics</i> , 2022, 42, 100428.	1.1	8
2	Fine-tuning of polyaspartamide derivatives with alicyclic moieties for systemic mRNA delivery. <i>Journal of Controlled Release</i> , 2022, 342, 148-156.	4.8	10
3	Star-Polymer-DNA Gels Showing Highly Predictable and Tunable Mechanical Responses. <i>Advanced Materials</i> , 2022, 34, e2108818.	11.1	14
4	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). <i>Biomacromolecules</i> , 2022, 23, 388-397.	2.6	3
5	Experimental Comparison of Bond Lifetime and Viscoelastic Relaxation in Transient Networks with Well-Controlled Structures. <i>ACS Macro Letters</i> , 2022, 11, 753-759.	2.3	8
6	Halofuginone micelle nanoparticles eradicate Nrf2-activated lung adenocarcinoma without systemic toxicity. <i>Free Radical Biology and Medicine</i> , 2022, 187, 92-104.	1.3	5
7	Size-tunable PEG-grafted copolymers as a polymeric nanoruler for passive targeting muscle tissues. <i>Journal of Controlled Release</i> , 2022, 347, 607-614.	4.8	6
8	Clinical Translation of Self-Assembled Cancer Nanomedicines. <i>Advanced Therapeutics</i> , 2021, 4, .	1.6	34
9	Structural tuning of oligonucleotides for enhanced blood circulation properties of unit polyion complexes prepared from two-branched poly(ethylene glycol)-block-poly(<i>l</i> -lysine). <i>Journal of Controlled Release</i> , 2021, 330, 812-820.	4.8	15
10	Cancer-Specific Targeting of Taurine-Upregulated Gene 1 Enhances the Effects of Chemotherapy in Pancreatic Cancer. <i>Cancer Research</i> , 2021, 81, 1654-1666.	0.4	22
11	Polydopamine-Mediated Surface Functionalization of Exosomes. <i>ChemNanoMat</i> , 2021, 7, 592-595.	1.5	8
12	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.	9.4	75
13	Block catiomer with flexible cationic segment enhances complexation with siRNA and the delivery performance in vitro. <i>Science and Technology of Advanced Materials</i> , 2021, 22, 850-863.	2.8	6
14	Bioinspired Silicification of mRNA-Loaded Polyion Complexes for Macrophage-Targeted mRNA Delivery. <i>ACS Applied Bio Materials</i> , 2021, 4, 7790-7799.	2.3	7
15	Photo-reactive oligodeoxynucleotide-embedded nanovesicles (PROsomes) with switchable stability for efficient cellular uptake and gene knockdown. <i>Chemical Communications</i> , 2020, 56, 9477-9480.	2.2	2
16	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.	2.6	17
17	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.	7.2	113
18	A 50-nm-Sized Micellar Assembly of Thermoresponsive Polymer-Antisense Oligonucleotide Conjugates for Enhanced Gene Knockdown in Lung Cancer by Intratracheal Administration. <i>Advanced Therapeutics</i> , 2020, 3, 1900123.	1.6	5

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19	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.	1.6	10
20	Installation of a Thermoswitchable Hydrophobic Domain into a Unimer Polyion Complex for Enhanced Cellular Uptake of siRNA. <i>Bioconjugate Chemistry</i> , 2020, 31, 1320-1326.	1.8	4
21	Proliferation-associated long noncoding RNA, <i>TMPO-AS1</i> , is a potential therapeutic target for triple-negative breast cancer. <i>Cancer Science</i> , 2020, 111, 2440-2450.	1.7	26
22	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.	2.6	21
23	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.	5.3	48
24	In vivo rendezvous of small nucleic acid drugs with charge-matched block cationomers to target cancers. <i>Nature Communications</i> , 2019, 10, 1894.	5.8	53
25	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.	1.8	14
26	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.	3.7	39
27	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.	2.8	13
28	Self-Assembly of siRNA/PEG- <i>b</i> -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.	6.6	54
29	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.	4.8	82
30	Enhanced Intracellular Delivery of siRNA by Controlling ATP-Responsivity of Phenylboronic Acid-Functionalized Polyion Complex Micelles. <i>Macromolecular Bioscience</i> , 2018, 18, 1700357.	2.1	34
31	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.	2.6	34
32	Functionalization of silica nanoparticles for nucleic acid delivery. <i>Nano Research</i> , 2018, 11, 5219-5239.	5.8	41
33	Block Copolymer Micelles in Nanomedicine Applications. <i>Chemical Reviews</i> , 2018, 118, 6844-6892.	23.0	925
34	Small Delivery Vehicles of siRNA for Enhanced Cancer Targeting. <i>Biomacromolecules</i> , 2018, 19, 2377-2390.	2.6	28
35	Inhibition of PRDM14 expression in pancreatic cancer suppresses cancer stem-like properties and liver metastasis in mice. <i>Carcinogenesis</i> , 2017, 38, 638-648.	1.3	42
36	Secondary-Structure-Driven Self-Assembly of Reactive Polypept(o)ides: Controlling Size, Shape, and Function of Core Cross-Linked Nanostructures. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9608-9613.	7.2	69

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37	Sekundärstrukturbildung als Triebkraft für die Selbstorganisation reaktiver Polypept(o)ide: Steuerung von Größe, Form und Funktion kernvernetzter Nanostrukturen. Angewandte Chemie, 2017, 129, 9737-9742.	1.6	12
38	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.	1.9	5
39	Virus-Mimicking Chimaeric Polymersomes Boost Targeted Cancer siRNA Therapy In Vivo. Advanced Materials, 2017, 29, 1703285.	11.1	130
40	Smart polymeric nanocarriers for small nucleic acid delivery. Drug Discoveries and Therapeutics, 2016, 10, 236-247.	0.6	13
41	Macromol. Rapid Commun. 6/2016. Macromolecular Rapid Communications, 2016, 37, 560-560.	2.0	0
42	Targeting the Notch-regulated non-coding RNA TUG1 for glioma treatment. Nature Communications, 2016, 7, 13616.	5.8	267
43	Targeted systemic delivery of siRNA to cervical cancer model using cyclic RGD-installed unimer polyion complex-assembled gold nanoparticles. Journal of Controlled Release, 2016, 244, 247-256.	4.8	87
44	Nanoscale self-assemblies of PEG-poly(amino acid) block copolymers: Polymeric micellar DDS. Drug Delivery System, 2016, 31, 283-292.	0.0	0
45	Recent progress in development of siRNA delivery vehicles for cancer therapy. Advanced Drug Delivery Reviews, 2016, 104, 61-77.	6.6	346
46	Influence of RNA Strand Rigidity on Polyion Complex Formation with Block Cationomers. Macromolecular Rapid Communications, 2016, 37, 486-493.	2.0	67
47	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. Biomacromolecules, 2016, 17, 246-255.	2.6	48
48	Synthetic Polyamines to Regulate mRNA Translation through the Preservative Binding of Eukaryotic Initiation Factor 4E to the Cap Structure. Journal of the American Chemical Society, 2016, 138, 1478-1481.	6.6	33
49	Systemic delivery of siRNA by actively targeted polyion complex micelles for silencing the E6 and E7 human papillomavirus oncogenes. Journal of Controlled Release, 2016, 231, 29-37.	4.8	42
50	Enhanced target recognition of nanoparticles by cocktail PEGylation with chains of varying lengths. Chemical Communications, 2016, 52, 1517-1519.	2.2	31
51	Preparation of Polyion Complex Micelles Using Block Copolymers for siRNA Delivery. Methods in Molecular Biology, 2016, 1364, 89-103.	0.4	6
52	Enteral siRNA delivery technique for therapeutic gene silencing in the liver via the lymphatic route. Scientific Reports, 2015, 5, 17035.	1.6	26
53	Development of Nucleic Acid Delivery System Based on Polymeric Materials. Drug Delivery System, 2015, 30, 363-370.	0.0	0
54	42nd Annual Meeting & Exposition of Controlled Release Society(CRS). Drug Delivery System, 2015, 30, 402-404.	0.0	0

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55	Bevacizumab and Aflibercept Activate Platelets via Fc γ RIIa. , 2015, 56, 8075.		17
56	Precisely regulated nanoarchitecture comprised of gold nanotemplate and unimer polyion complex for systemic delivery of siRNA. Journal of Controlled Release, 2015, 213, e75-e76.	4.8	0
57	DNA/RNA heteroduplex oligonucleotide for highly efficient gene silencing. Nature Communications, 2015, 6, 7969.	5.8	99
58	MicroRNAs Induce Epigenetic Reprogramming and Suppress Malignant Phenotypes of Human Colon Cancer Cells. PLoS ONE, 2015, 10, e0127119.	1.1	32
59	Fine-tuning of Charge-Conversion Polymer Structure for Efficient Endosomal Escape of siRNA-Loaded Calcium Phosphate Hybrid Micelles. Macromolecular Rapid Communications, 2014, 35, 1211-1215.	2.0	44
60	siRNA delivery from triblock copolymer micelles with spatially-ordered compartments of PEG shell, siRNA-loaded intermediate layer, and hydrophobic core. Biomaterials, 2014, 35, 4548-4556.	5.7	76
61	Systemic siRNA delivery to a spontaneous pancreatic tumor model in transgenic mice by PEGylated calcium phosphate hybrid micelles. Journal of Controlled Release, 2014, 178, 18-24.	4.8	108
62	Multifunctional polyion complex micelle featuring enhanced stability, targetability, and endosome escapability for systemic siRNA delivery to subcutaneous model of lung cancer. Drug Delivery and Translational Research, 2014, 4, 50-60.	3.0	43
63	Bioresponsive Polymer-Based Nucleic Acid Carriers. Advances in Genetics, 2014, 88, 289-323.	0.8	18
64	Precise Engineering of siRNA Delivery Vehicles to Tumors Using Polyion Complexes and Gold Nanoparticles. ACS Nano, 2014, 8, 8979-8991.	7.3	126
65	Modulated Protonation of Side Chain Aminoethylene Repeats in N-Substituted Polyaspartamides Promotes mRNA Transfection. Journal of the American Chemical Society, 2014, 136, 12396-12405.	6.6	113
66	Actively-targeted polyion complex micelles stabilized by cholesterol and disulfide cross-linking for systemic delivery of siRNA to solid tumors. Biomaterials, 2014, 35, 7887-7895.	5.7	113
67	Nanodevices for studying nano-pathophysiology. Advanced Drug Delivery Reviews, 2014, 74, 35-52.	6.6	30
68	Optimized rod length of polyplex micelles for maximizing transfection efficiency and their performance in systemic gene therapy against stroma-rich pancreatic tumors. Biomaterials, 2014, 35, 5359-5368.	5.7	62
69	Three-layered polyplex micelle as a multifunctional nanocarrier platform for light-induced systemic gene transfer. Nature Communications, 2014, 5, 3545.	5.8	167
70	Fine-Tuning of Repeating Aminoethylene Units in Poly(aspartamide) Side Chains for Enhanced siRNA Delivery. ACS Symposium Series, 2013, , 189-196.	0.5	5
71	Acidic pH-Responsive siRNA Conjugate for Reversible Carrier Stability and Accelerated Endosomal Escape with Reduced IFN γ -Associated Immune Response. Angewandte Chemie - International Edition, 2013, 52, 6218-6221.	7.2	103
72	Silica nanogelling of environment-responsive PEGylated polyplexes for enhanced stability and intracellular delivery of siRNA. Biomaterials, 2013, 34, 562-570.	5.7	29

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73	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.	18.7	436
74	Smart Multilayered Assembly for Biocompatible siRNA Delivery Featuring Dissolvable Silica, Endosome-Disrupting Polycation, and Detachable PEG. <i>ACS Nano</i> , 2012, 6, 6693-6705.	7.3	92
75	Rational Design of a Phenylboronate-Functionalized Polyion Complex Micelle for ATP-Triggered Release of siRNA (<i>Angew. Chem.</i> 43/2012). <i>Angewandte Chemie</i> , 2012, 124, 11062-11062.	1.6	0
76	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.	2.1	38
77	Accelerated Polymer Click Conjugation by Freeze-Thaw Treatment. <i>Bioconjugate Chemistry</i> , 2012, 23, 1503-1506.	1.8	36
78	A Phenylboronate-Functionalized Polyion Complex Micelle for ATP-Triggered Release of siRNA. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 10751-10755.	7.2	200
79	Targeted Polymeric Micelles for siRNA Treatment of Experimental Cancer by Intravenous Injection. <i>ACS Nano</i> , 2012, 6, 5174-5189.	7.3	186
80	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.	5.7	73
81	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.	4.8	103
82	Effect of Polymer Structure on Micelles Formed between siRNA and Cationic Block Copolymer Comprising Thiols and Amidines. <i>Biomacromolecules</i> , 2011, 12, 3174-3185.	2.6	89
83	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.	6.6	199
84	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.	4.8	86
85	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.	4.8	110
86	Polyplex micelles prepared from γ -cholesteryl PEG-polycation block copolymers for systemic gene delivery. <i>Biomaterials</i> , 2011, 32, 652-663.	5.7	101
87	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.	5.7	157
88	Polymeric micelles for nano-scale drug delivery. <i>Reactive and Functional Polymers</i> , 2011, 71, 227-234.	2.0	402
89	Enhanced transfection with silica-coated polyplexes loading plasmid DNA. <i>Biomaterials</i> , 2010, 31, 4764-4770.	5.7	29
90	Polyion complex stability and gene silencing efficiency with a siRNA-grafted polymer delivery system. <i>Biomaterials</i> , 2010, 31, 8097-8105.	5.7	122

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91	Introduction of stearyl moieties into a biocompatible cationic polyaspartamide derivative, PAsp(DET), with endosomal escaping function for enhanced siRNA-mediated gene knockdown. Journal of Controlled Release, 2010, 145, 141-148.	4.8	114
92	siRNA-Based Therapy Ameliorates Glomerulonephritis. Journal of the American Society of Nephrology: JASN, 2010, 21, 622-633.	3.0	84
93	Direct and instantaneous observation of intravenously injected substances using intravital confocal micro-videography. Biomedical Optics Express, 2010, 1, 1209.	1.5	62
94	Environment-Responsive Block Copolymer Micelles with a Disulfide Cross-Linked Core for Enhanced siRNA Delivery. Biomacromolecules, 2009, 10, 119-127.	2.6	301
95	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. Pharmaceutical Research, 2008, 25, 2924-2936.	1.7	45
96	Charge-Conversion Ternary Polyplex with Endosome Disruption Moiety: A Technique for Efficient and Safe Gene Delivery. Angewandte Chemie - International Edition, 2008, 47, 5163-5166.	7.2	206
97	Polyplex Micelles with Cyclic RGD Peptide Ligands and Disulfide Cross-Links Directing to the Enhanced Transfection via Controlled Intracellular Trafficking. Molecular Pharmaceutics, 2008, 5, 1080-1092.	2.3	131
98	PEG-Detachable Polyplex Micelles Based on Disulfide-Linked Block Cationomers as Bioresponsive Nonviral Gene Vectors. Journal of the American Chemical Society, 2008, 130, 6001-6009.	6.6	387
99	Polyplexes from Poly(aspartamide) Bearing 1,2-Diaminoethane Side Chains Induce pH-Selective, Endosomal Membrane Destabilization with Amplified Transfection and Negligible Cytotoxicity. Journal of the American Chemical Society, 2008, 130, 16287-16294.	6.6	328
100	PEG-based block cationomers possessing DNA anchoring and endosomal escaping functions to form polyplex micelles with improved stability and high transfection efficacy. Journal of Controlled Release, 2007, 122, 252-260.	4.8	43
101	A PEG-Based Biocompatible Block Cationomer with High Buffering Capacity for the Construction of Polyplex Micelles Showing Efficient Gene Transfer toward Primary Cells. ChemMedChem, 2006, 1, 439-444.	1.6	193
102	Light-induced gene transfer from packaged DNA enveloped in a dendrimeric photosensitizer. Nature Materials, 2005, 4, 934-941.	13.3	330
103	Freeze-dried formulations for in vivo gene delivery of PEGylated polyplex micelles with disulfide crosslinked cores to the liver. Journal of Controlled Release, 2005, 109, 15-23.	4.8	122
104	Smart polymeric micelles for gene and drug delivery. Drug Discovery Today: Technologies, 2005, 2, 21-26.	4.0	102
105	PEGylated Polyplex Micelles from Triblock Cationomers with Spatially Ordered Layering of Condensed pDNA and Buffering Units for Enhanced Intracellular Gene Delivery. Journal of the American Chemical Society, 2005, 127, 2810-2811.	6.6	204
106	Block Cationomer Polyplexes with Regulated Densities of Charge and Disulfide Cross-Linking Directed To Enhance Gene Expression. Journal of the American Chemical Society, 2004, 126, 2355-2361.	6.6	383
107	Polyion Complex Micelles of pDNA with Acetal-poly(ethylene glycol)-poly(2-(dimethylamino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock Relevant to Gene Transfection Efficacy. Biomacromolecules, 2004, 5, 2128-2136.	2.6	78