Runhui Liu

List of Publications by Year
in descending order

76 papers	3,435 citations	147566 31 h-index	149479 56 g-index
80 all docs	80 docs citations	80 times ranked	2777 citing authors

#	Article	IF	Citations
1	Controllable Polymerization of <i>N</i> -Substituted Î²-Alanine <i>N</i> -Thiocarboxyanhydrides for Convenient Synthesis of Functional Poly(Î²-peptoid)s. CCS Chemistry, 2023, 5, 994-1004.	4.6	8
2	Peptide Polymerâ€Doped Cement Acting as an Effective Treatment of MRSAâ€Infected Chronic Osteomyelitis. Advanced Functional Materials, 2022, 32, 2107942.	7.8	27
3	Controlled copolymerization of Î±-NCAs and Î±-NNTAs for preparing peptide/peptoid hybrid polymers with adjustable proteolysis. Polymer Chemistry, 2022, 13, 388-394.	1.9	4
4	Secondary Amine Pendant Î²-Peptide Polymers Displaying Potent Antibacterial Activity and Promising Therapeutic Potential in Treating MRSA-Induced Wound Infections and Keratitis. Journal of the American Chemical Society, 2022, 144, 1690-1699.	6.6	56
5	Facile synthesis of polypeptoids bearing bulky sidechains <i>via</i> urea accelerated ring-opening polymerization of Î±-amino acid <i>N</i>-substituted <i>N</i>-carboxyanhydrides. Polymer Chemistry, 2022, 13, 420-426.	1.9	8
6	Facile one-pot synthesis of 2-oxazoline. Tetrahedron Letters, 2022, 91, 153637.	0.7	2
7	Quaternized Polysaccharideâ€Based Cationic Micelles as a Macromolecular Approach to Eradicate Multidrugâ€Resistant Bacterial Infections while Mitigating Antimicrobial Resistance. Small, 2022, 18, e2104885.	5.2	15
8	Interplay of Fusion, Leakage, and Electrostatic Lipid Clustering: Membrane Perturbations by a Hydrophobic Antimicrobial Polycation. Langmuir, 2022, 38, 2379-2391.	1.6	6
9	Amphipathic poly-Î²-peptides for intracellular protein delivery. Chemical Communications, 2022, 58, 4320-4323.	2.2	4
10	Short Guanidiniumâ€Functionalized Poly(2â€oxazoline)s Displaying Potent Therapeutic Efficacy on Drugâ€Resistant Fungal Infections. Angewandte Chemie, 2022, 134, .	1.6	3
11	Short Guanidiniumâ€Functionalized Poly(2â€oxazoline)s Displaying Potent Therapeutic Efficacy on Drugâ€Resistant Fungal Infections. Angewandte Chemie - International Edition, 2022, 61, e202200778.	7.2	37
12	Microbial Metabolite Inspired <i>Î²</i>â€Peptide Polymers Displaying Potent and Selective Antifungal Activity. Advanced Science, 2022, 9, e2104871.	5.6	19
13	Heterochiral Î²-Peptide Polymers Combating Multidrug-Resistant Cancers Effectively without Inducing Drug Resistance. Journal of the American Chemical Society, 2022, 144, 7283-7294.	6.6	26
14	An Effective Strategy to Develop Potent and Selective Antifungal Agents from Cell Penetrating Peptides in Tackling Drug-Resistant Invasive Fungal Infections. Journal of Medicinal Chemistry, 2022, 65, 7296-7311.	2.9	19
15	Antifouling zwitterionic poly-Î²-peptides. Applied Materials Today, 2022, 27, 101511.	2.3	6
16	Statistic Copolymers Working as Growth Factorâ€Binding Mimics of Fibronectin. Advanced Science, 2022, 9, e2200775.	5.6	5
17	Biodegradable peptide polymers as alternatives to antibiotics used in aquaculture. Biomaterials Science, 2022, 10, 4193-4207.	2.6	10
18	Host defense peptide mimicking cyclic peptoid polymers exerting strong activity against drug-resistant bacteria. Biomaterials Science, 2022, 10, 4515-4524.	2.6	4

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19	Using <i>In Vivo</i> Assessment on Host Defense Peptide Mimicking Polymer-Modified Surfaces for Combating Implant Infections. ACS Applied Bio Materials, 2021, 4, 3811-3829.	2.3	16
20	Dealing with the Foreignâ€Body Response to Implanted Biomaterials: Strategies and Applications of New Materials. Advanced Functional Materials, 2021, 31, 2007226.	7.8	114
21	Peptideâ€Mimicking Poly(2â€oxazoline)s Displaying Potent Antimicrobial Properties. ChemMedChem, 2021, 16, 309-315.	1.6	22
22	Manganese dioxide nanozyme for reactive oxygen therapy of bacterial infection and wound healing. Biomaterials Science, 2021, 9, 5965-5976.	2.6	52
23	The membrane-targeting mechanism of host defense peptides inspiring the design of polypeptide-conjugated gold nanoparticles exhibiting effective antibacterial activity against methicillin-resistant <i>Staphylococcus aureus</i>. Journal of Materials Chemistry B, 2021, 9, 5092-5101.	2.9	10
24	Foreignâ€Body Responses: Dealing with the Foreignâ€Body Response to Implanted Biomaterials: Strategies and Applications of New Materials (Adv. Funct. Mater. 6/2021). Advanced Functional Materials, 2021, 31, 2170040.	7.8	3
25	Therapeutic strategies against bacterial biofilms. Fundamental Research, 2021, 1, 193-212.	1.6	84
26	Cationic Homopolymers Inhibit Spore and Vegetative Cell Growth of <i>Clostridioides difficile</i>. ACS Infectious Diseases, 2021, 7, 1236-1247.	1.8	7
27	Alkali-metal hexamethyldisilazide initiated polymerization on alpha-amino acid N-substituted N-carboxyanhydrides for facile polypeptoid synthesis. Chinese Chemical Letters, 2021, 32, 1675-1678.	4.8	20
28	The impact of antifouling layers in fabricating bioactive surfaces. Acta Biomaterialia, 2021, 126, 45-62.	4.1	25
29	Bio-inspired poly-DL-serine materials resist the foreign-body response. Nature Communications, 2021, 12, 5327.	5.8	33
30	Superfast and Waterâ€Insensitive Polymerization on Î±â€Amino Acid <i>N</i>â€Carboxyanhydrides to Prepare Polypeptides Using Tetraalkylammonium Carboxylate as the Initiator. Angewandte Chemie, 2021, 133, 26267-26275.	1.6	5
31	Superfast and Waterâ€Insensitive Polymerization on Î±â€Amino Acid <i>N</i>â€Carboxyanhydrides to Prepare Polypeptides Using Tetraalkylammonium Carboxylate as the Initiator. Angewandte Chemie - International Edition, 2021, 60, 26063-26071.	7.2	33
32	Synthesis of poly-Î±/Î²-peptides with tunable sequence via the copolymerization on N-carboxyanhydride and N-thiocarboxyanhydride. IScience, 2021, 24, 103124.	1.9	15
33	In vitro and in vivo evaluation of implantable bacterial-killing coatings based on host defense peptides and their synthetic mimics. Journal of Materials Science and Technology, 2021, 91, 90-104.	5.6	9
34	Effective and biocompatible antibacterial surfaces via facile synthesis and surface modification of peptide polymers. Bioactive Materials, 2021, 6, 4531-4541.	8.6	34
35	Hidden complexity in membrane permeabilization behavior of antimicrobial polycations. Physical Chemistry Chemical Physics, 2021, 23, 1475-1488.	1.3	8
36	Dual mechanism Î²-amino acid polymers promoting cell adhesion. Nature Communications, 2021, 12, 562.	5.8	54

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37	Addressing MRSA infection and antibacterial resistance with peptoid polymers. Nature Communications, 2021, 12, 5898.	5.8	97
38	A sandcastle worm-inspired strategy to functionalize wet hydrogels. Nature Communications, 2021, 12, 6331.	5.8	27
39	Host Defense Peptide Mimicking Peptide Polymer Exerting Fast, Broad Spectrum, and Potent Activities toward Clinically Isolated Multidrug-Resistant Bacteria. ACS Infectious Diseases, 2020, 6, 479-488.	1.8	39
40	Peptide polymer displaying potent activity against clinically isolated multidrug resistant <i>Pseudomonas aeruginosa in vitro</i> and <i>in vivo</i>. Biomaterials Science, 2020, 8, 739-745.	2.6	39
41	Introduction to Antibacterial Biomaterials. Biomaterials Science, 2020, 8, 6812-6813.	2.6	18
42	Host Defense Peptide-Mimicking Amphiphilic Î²-Peptide Polymer (Bu:DM) Exhibiting Anti-Biofilm, Immunomodulatory, and <i>in Vivo</i> Anti-Infective Activity. Journal of Medicinal Chemistry, 2020, 63, 12921-12928.	2.9	25
43	An alpha/beta chimeric peptide molecular brush for eradicating MRSA biofilms and persister cells to mitigate antimicrobial resistance. Biomaterials Science, 2020, 8, 6883-6889.	2.6	23
44	Structural design and antimicrobial properties of polypeptides and saccharideâ€"polypeptide conjugates. Journal of Materials Chemistry B, 2020, 8, 9173-9196.	2.9	27
45	Silkâ€Inspired Î²â€Peptide Materials Resist Fouling and the Foreignâ€Body Response. Angewandte Chemie, 2020, 132, 9673-9680.	1.6	7
46	Silkâ€Inspired Î²â€Peptide Materials Resist Fouling and the Foreignâ€Body Response. Angewandte Chemie - International Edition, 2020, 59, 9586-9593.	7.2	56
47	Innentitelbild: Poly(2â€Oxazoline)â€Based Functional Peptide Mimics: Eradicating MRSA Infections and Persisters while Alleviating Antimicrobial Resistance (Angew. Chem. 16/2020). Angewandte Chemie, 2020, 132, 6354-6354.	1.6	2
48	Breaking or following the membrane-targeting mechanism: Exploring the antibacterial mechanism of host defense peptide mimicking poly(2-oxazoline)s. Journal of Materials Science and Technology, 2020, 59, 220-226.	5.6	30
49	Waterâ€Insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie, 2020, 132, 7307-7311.	1.6	3
50	Poly(2â€Oxazoline)â€Based Functional Peptide Mimics: Eradicating MRSA Infections and Persisters while Alleviating Antimicrobial Resistance. Angewandte Chemie, 2020, 132, 6474-6481.	1.6	14
51	Poly(2â€Oxazoline)â€Based Functional Peptide Mimics: Eradicating MRSA Infections and Persisters while Alleviating Antimicrobial Resistance. Angewandte Chemie - International Edition, 2020, 59, 6412-6419.	7.2	162
52	Waterâ€Insensitive Synthesis of Polyâ€Î²â€Peptides with Defined Architecture. Angewandte Chemie - International Edition, 2020, 59, 7240-7244.	7.2	50
53	Efficient synthesis of amino acid polymers for protein stabilization. Biomaterials Science, 2019, 7, 3675-3682.	2.6	15
54	The Impact of Nylon-3 Copolymer Composition on the Efficiency of siRNA Delivery to Glioblastoma Cells. Nanomaterials, 2019, 9, 986.	1.9	18

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55	Impact of Antifouling PEG Layer on the Performance of Functional Peptides in Regulating Cell Behaviors. Journal of the American Chemical Society, 2019, 141, 16772-16780.	6.6	133
56	Practical Preparation of Infection-Resistant Biomedical Surfaces from Antimicrobial Î²-Peptide Polymers. ACS Applied Materials & Interfaces, 2019, 11, 18907-18913.	4.0	77
57	Host defense peptide mimicking poly-Î²-peptides with fast, potent and broad spectrum antibacterial activities. Biomaterials Science, 2019, 7, 2144-2151.	2.6	83
58	Light-Cross-linked Enediyne Small-Molecule Micelle-Based Drug-Delivery System. ACS Applied Materials & Interfaces, 2019, 11, 8896-8903.	4.0	19
59	Dual functional Î²-peptide polymer-modified resin beads for bacterial killing and endotoxin adsorption. BMC Materials, 2019, 1, .	6.8	20
60	Alpha-beta chimeric polypeptide molecular brushes display potent activity against superbugs-methicillin resistant Staphylococcus aureus. Science China Materials, 2019, 62, 604-610.	3.5	33
61	Surface Modified with a Host Defense Peptide-Mimicking Î²-Peptide Polymer Kills Bacteria on Contact with High Efficacy. ACS Applied Materials & Interfaces, 2018, 10, 15395-15400.	4.0	117
62	Lithium hexamethyldisilazide initiated superfast ring opening polymerization of alpha-amino acid N-carboxyanhydrides. Nature Communications, 2018, 9, 5297.	5.8	136
63	Versatile Antibacterial Materials: An Emerging Arsenal for Combatting Bacterial Pathogens. Advanced Functional Materials, 2018, 28, 1802140.	7.8	372
64	Single-Cell, Time-Resolved Antimicrobial Effects of a Highly Cationic, Random Nylon-3 Copolymer on Live <i>Escherichia coli</i>. ACS Chemical Biology, 2016, 11, 113-120.	1.6	44
65	Nylon-3 Polymers Active against Drug-Resistant <i>Candida albicans</i> Biofilms. Journal of the American Chemical Society, 2015, 137, 2183-2186.	6.6	123
66	Screening Nylon-3 Polymers, a New Class of Cationic Amphiphiles, for siRNA Delivery. Molecular Pharmaceutics, 2015, 12, 362-374.	2.3	25
67	Correlating antimicrobial activity and model membrane leakage induced by nylon-3 polymers and detergents. Soft Matter, 2015, 11, 6840-6851.	1.2	48
68	Synthetic Polymers Active against <i>Clostridium difficile</i> Vegetative Cell Growth and Spore Outgrowth. Journal of the American Chemical Society, 2014, 136, 14498-14504.	6.6	62
69	Structureâ€"Activity Relationships among Antifungal Nylon-3 Polymers: Identification of Materials Active against Drug-Resistant Strains of <i>Candida albicans</i>. Journal of the American Chemical Society, 2014, 136, 4333-4342.	6.6	113
70	Tuning the Biological Activity Profile of Antibacterial Polymers via Subunit Substitution Pattern. Journal of the American Chemical Society, 2014, 136, 4410-4418.	6.6	175
71	Ternary Nylon-3 Copolymers as Host-Defense Peptide Mimics: Beyond Hydrophobic and Cationic Subunits. Journal of the American Chemical Society, 2014, 136, 14530-14535.	6.6	108
72	Nylon-3 Polymers with Selective Antifungal Activity. Journal of the American Chemical Society, 2013, 135, 5270-5273.	6.6	127

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73	Effects of Cyclic vs Acyclic Hydrophobic Subunits on the Chemical Structure and Biological Properties of Nylon-3 Copolymers. ACS Macro Letters, 2013, 2, 753-756.	2.3	40
74	Nylon-3 Polymers That Enable Selective Culture of Endothelial Cells. Journal of the American Chemical Society, 2013, 135, 16296-16299.	6.6	35
75	Interplay among Subunit Identity, Subunit Proportion, Chain Length, and Stereochemistry in the Activity Profile of Sequence-Random Peptide Mixtures. Journal of the American Chemical Society, 2013, 135, 11748-11751.	6.6	47
76	Polymer Chain Length Effects on Fibroblast Attachment on Nylon-3-Modified Surfaces. Biomacromolecules, 2012, 13, 1100-1105.	2.6	39