Rein Ulijn

List of Publications by Year
in descending order

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130 papers	11,382 citations	28274 55 h-index	29157 104 g-index
133 all docs	133 docs citations	133 times ranked	8654 citing authors

#	Article	IF	Citations
1	Selfâ€Complementary Zwitterionic Peptides Direct Nanoparticle Assembly and Enable Enzymatic Selection of Endocytic Pathways. Advanced Materials, 2022, 34, e2104962.	21.0	20
2	The Impact of Tyrosine Iodination on the Aggregation and Cleavage Kinetics of MMP-9-Responsive Peptide Sequences. ACS Biomaterials Science and Engineering, 2022, 8, 579-587.	5.2	8
3	Combinatorial Discovery and Validation of Heptapeptides with UTP Binding Induced Structure. ChemSystemsChem, 2021, 3, e2000025.	2.6	1
4	Mechanistic insights of evaporation-induced actuation in supramolecular crystals. Nature Materials, 2021, 20, 403-409.	27.5	44
5	Melaninâ€Inspired Chromophoric Microparticles Composed of Polymeric Peptide Pigments. Angewandte Chemie, 2021, 133, 7642-7647.	2.0	2
6	Melaninâ€Inspired Chromophoric Microparticles Composed of Polymeric Peptide Pigments. Angewandte Chemie - International Edition, 2021, 60, 7564-7569.	13.8	22
7	Carbohydrate amphiphiles for supramolecular biomaterials: Design, self-assembly, and applications. CheM, 2021, 7, 2943-2964.	11.7	42
8	Elucidation of the structure of supramolecular polymorphs in peptide nanofibres using Raman spectroscopy. Journal of Raman Spectroscopy, 2021, 52, 1108-1114.	2.5	3
9	Peptide-Based Supramolecular Systems Chemistry. Chemical Reviews, 2021, 121, 13869-13914.	47.7	171
10	Expanding the Conformational Landscape of Minimalistic Tripeptides by Their <i>O</i>-Glycosylation. Journal of the American Chemical Society, 2021, 143, 19703-19710.	13.7	14
11	Discovery of phosphotyrosine-binding oligopeptides with supramolecular target selectivity. Chemical Science, 2021, 13, 210-217.	7.4	7
12	Order/Disorder in Protein and Peptideâ€Based Biomaterials. Israel Journal of Chemistry, 2020, 60, 1129-1140.	2.3	20
13	Protonâ€Conductive Melaninâ€Like Fibers through Enzymatic Oxidation of a Selfâ€Assembling Peptide. Advanced Materials, 2020, 32, e2003511.	21.0	38
14	Comparison of Methods for Surface Modification of Barium Titanate Nanoparticles for Aqueous Dispersibility: Toward Biomedical Utilization of Perovskite Oxides. ACS Applied Materials & Interfaces, 2020, 12, 51135-51147.	8.0	15
15	In Situ, Noncovalent Labeling and Stimulated Emission Depletion-Based Super-Resolution Imaging of Supramolecular Peptide Nanostructures. ACS Nano, 2020, 14, 15056-15063.	14.6	13
16	Aromatic carbohydrate amphiphile disrupts cancer spheroids and prevents relapse. Nanoscale, 2020, 12, 19088-19092.	5.6	8
17	Inhibiting cancer metabolism by aromatic carbohydrate amphiphiles that act as antagonists of the glucose transporter GLUT1. Chemical Science, 2020, 11, 3737-3744.	7.4	21
18	Spontaneous Aminolytic Cyclization and Selfâ€Assembly of Dipeptide Methyl Esters in Water. ChemSystemsChem, 2020, 2, e2000013.	2.6	9

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19	Visible-light photooxidation in water by ¹O₂-generating supramolecular hydrogels. Chemical Science, 2020, 11, 4239-4245.	7.4	19
20	Selfâ€Assembly Propensity Dictates Lifetimes in Transient Naphthalimideâ€“Dipeptide Nanofibers. Chemistry - A European Journal, 2020, 26, 8372-8376.	3.3	25
21	Catalyst: Can Systems Chemistry Unravel the Mysteries of the Chemical Origins of Life?. CheM, 2019, 5, 1917-1920.	11.7	37
22	Fmocâ€Dipeptide/Porphyrin Molar Ratio Dictates Energy Transfer Efficiency in Nanostructures Produced by Biocatalytic Coâ€Assembly. Chemistry - A European Journal, 2019, 25, 11847-11851.	3.3	14
23	Sub-10 nm Resolution Patterning of Pockets for Enzyme Immobilization with Independent Density and Quasi-3D Topography Control. ACS Applied Materials & Interfaces, 2019, 11, 41780-41790.	8.0	15
24	Minimalistic supramolecular proteoglycan mimics by co-assembly of aromatic peptide and carbohydrate amphiphiles. Chemical Science, 2019, 10, 2385-2390.	7.4	60
25	Customizing Morphology, Size, and Response Kinetics of Matrix Metalloproteinase-Responsive Nanostructures by Systematic Peptide Design. ACS Nano, 2019, 13, 1555-1562.	14.6	34
26	Unbiased Discovery of Dynamic Peptideâ€ATP Complexes. ChemSystemsChem, 2019, 1, 7-11.	2.6	12
27	High-throughput protein nanopatterning. Faraday Discussions, 2019, 219, 33-43.	3.2	13
28	Tunable Supramolecular Gel Properties by Varying Thermal History. Chemistry - A European Journal, 2019, 25, 7881-7887.	3.3	32
29	Computational prediction of tripeptide-dipeptide co-assembly. Molecular Physics, 2019, 117, 1151-1163.	1.7	22
30	Energy landscaping in supramolecular materials. Current Opinion in Structural Biology, 2018, 51, 9-18.	5.7	23
31	Biocatalytic Self-Assembly on Magnetic Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 3069-3075.	8.0	44
32	Amino-acid-encoded biocatalytic self-assembly enables the formation of transient conducting nanostructures. Nature Chemistry, 2018, 10, 696-703.	13.6	189
33	Peptide and protein nanotechnology into the 2020s: beyond biology. Chemical Society Reviews, 2018, 47, 3391-3394.	38.1	42
34	Tripeptide-Stabilized Oil-in-Water Nanoemulsion of an Oleic Acidsâ€“Platinum(II) Conjugate as an Anticancer Nanomedicine. Bioconjugate Chemistry, 2018, 29, 2514-2519.	3.6	11
35	Guiding principles for peptide nanotechnology through directed discovery. Chemical Society Reviews, 2018, 47, 3737-3758.	38.1	116
36	Hydrogel Nanomaterials for Cancer Diagnosis and Therapy. , 2018, , 170-183.		3

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37	Biocatalytic Self-Assembly Using Reversible and Irreversible Enzyme Immobilization. ACS Applied Materials & Interfaces, 2017, 9, 3266-3271.	8.0	40
38	Frontispiece: Peptideâ€Based Molecular Hydrogels as Supramolecular Protein Mimics. Chemistry - A European Journal, 2017, 23, .	3.3	1
39	Biocatalytic Selfâ€Assembly Cascades. Angewandte Chemie - International Edition, 2017, 56, 6828-6832.	13.8	65
40	Biocatalytic Self-Assembly of Tripeptide Gels and Emulsions. Langmuir, 2017, 33, 4986-4995.	3.5	26
41	Tuning Supramolecular Structure and Functions of Peptide <i>bola</i>-Amphiphile by Solvent Evaporationâ€"Dissolution. ACS Applied Materials & Interfaces, 2017, 9, 21390-21396.	8.0	32
42	Polymeric peptide pigments with sequence-encoded properties. Science, 2017, 356, 1064-1068.	12.6	244
43	Tunable Gas Sensing Gels by Cooperative Assembly. Advanced Functional Materials, 2017, 27, 1700803.	14.9	50
44	Switchable Hydrolase Based on Reversible Formation of Supramolecular Catalytic Site Using a Selfâ€Assembling Peptide. Angewandte Chemie - International Edition, 2017, 56, 14511-14515.	13.8	131
45	Switchable Hydrolase Based on Reversible Formation of Supramolecular Catalytic Site Using a Selfâ€Assembling Peptide. Angewandte Chemie, 2017, 129, 14703-14707.	2.0	109
46	Liquid Crystals: Tunable Gas Sensing Gels by Cooperative Assembly (Adv. Funct. Mater. 27/2017). Advanced Functional Materials, 2017, 27, .	14.9	0
47	Pathway-dependent gold nanoparticle formation by biocatalytic self-assembly. Nanoscale, 2017, 9, 12330-12334.	5.6	20
48	Cooperative, ion-sensitive co-assembly of tripeptide hydrogels. Chemical Communications, 2017, 53, 9562-9565.	4.1	57
49	Biocatalytic Selfâ€Assembly Cascades. Angewandte Chemie, 2017, 129, 6932-6936.	2.0	26
50	Peptideâ€Based Molecular Hydrogels as Supramolecular Protein Mimics. Chemistry - A European Journal, 2017, 23, 981-993.	3.3	147
51	Molecular dynamics simulations reveal disruptive self-assembly in dynamic peptide libraries. Organic and Biomolecular Chemistry, 2017, 15, 6541-6547.	2.8	15
52	Mesenchymal Stem Cell Fate: Applying Biomaterials for Control of Stem Cell Behavior. Frontiers in Bioengineering and Biotechnology, 2016, 4, 38.	4.1	60
53	Using experimental and computational energy equilibration to understand hierarchical self-assembly of Fmoc-dipeptide amphiphiles. Soft Matter, 2016, 12, 8307-8315.	2.7	31
54	Dynamic peptide libraries for the discovery of supramolecular nanomaterials. Nature Nanotechnology, 2016, 11, 960-967.	31.5	181

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55	Metastable hydrogels from aromatic dipeptides. Chemical Communications, 2016, 52, 13889-13892.	4.1	55
56	Tripeptide Emulsifiers. Advanced Materials, 2016, 28, 1381-1386.	21.0	73
57	Dynamic Surfaces for the Study of Mesenchymal Stem Cell Growth through Adhesion Regulation. ACS Nano, 2016, 10, 6667-6679.	14.6	93
58	MMP-9 triggered self-assembly of doxorubicin nanofiber depots halts tumor growth. Biomaterials, 2016, 98, 192-202.	11.4	131
59	Enzymatically activated emulsions stabilised by interfacial nanofibre networks. Soft Matter, 2016, 12, 2623-2631.	2.7	23
60	CHARMM force field parameterization protocol for self-assembling peptide amphiphiles: the Fmoc moiety. Physical Chemistry Chemical Physics, 2016, 18, 4659-4667.	2.8	17
61	Supramolecular Fibers in Gels Can Be at Thermodynamic Equilibrium: A Simple Packing Model Reveals Preferential Fibril Formation <i>versus</i> Crystallization. ACS Nano, 2016, 10, 2661-2668.	14.6	79
62	Analysis of enzyme-responsive peptide surfaces by Raman spectroscopy. Chemical Communications, 2016, 52, 4698-4701.	4.1	9
63	Biocatalytic Pathway Selection in Transient Tripeptide Nanostructures. Angewandte Chemie, 2015, 127, 8237-8241.	2.0	56
64	Biocatalytic Pathway Selection in Transient Tripeptide Nanostructures. Angewandte Chemie - International Edition, 2015, 54, 8119-8123.	13.8	171
65	Dynamic Peptide Library for the Discovery of Charge Transfer Hydrogels. ACS Applied Materials & Interfaces, 2015, 7, 25946-25954.	8.0	40
66	Short Peptides in Minimalistic Biocatalyst Design. Biocatalysis, 2015, 1, 67-81.	2.3	49
67	Insight into the esterase like activity demonstrated by an imidazole appended self-assembling hydrogelator. Chemical Communications, 2015, 51, 13213-13216.	4.1	74
68	Sequence Adaptive Peptideâ€“Polysaccharide Nanostructures by Biocatalytic Self-Assembly. Biomacromolecules, 2015, 16, 3473-3479.	5.4	42
69	Controlling Cancer Cell Fate Using Localized Biocatalytic Self-Assembly of an Aromatic Carbohydrate Amphiphile. Journal of the American Chemical Society, 2015, 137, 576-579.	13.7	260
70	Transient supramolecular reconfiguration of peptide nanostructures using ultrasound. Materials Horizons, 2015, 2, 198-202.	12.2	53
71	Exploring the sequence space for (tri-)peptide self-assembly to design and discover new hydrogels. Nature Chemistry, 2015, 7, 30-37.	13.6	597
72	MMP-9 triggered micelle-to-fibre transitions for slow release of doxorubicin. Biomaterials Science, 2015, 3, 246-249.	5.4	83

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73	Self-Assembly: Biocatalytic Self-Assembly of Nanostructured Peptide Microparticles using Droplet Microfluidics (Small 2/2014). Small, 2014, 10, 284-284.	10.0	1
74	Biocatalytic Selfâ€Assembly of Supramolecular Chargeâ€Transfer Nanostructures Based on nâ€Type Semiconductorâ€Appended Peptides. Angewandte Chemie - International Edition, 2014, 53, 5882-5887.	13.8	129
75	Biocatalytically Triggered Coâ€Assembly of Twoâ€Component Core/Shell Nanofibers. Small, 2014, 10, 973-979.	10.0	54
76	Biocatalysis: Biocatalytically Triggered Co-Assembly of Two-Component Core/Shell Nanofibers (Small) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	10.0	1
77	Biocatalytic amide condensation and gelation controlled by light. Chemical Communications, 2014, 50, 5462-5464.	4.1	49
78	Discovery of Catalytic Phages by Biocatalytic Self-Assembly. Journal of the American Chemical Society, 2014, 136, 15893-15896.	13.7	53
79	Tuneable Fmocâ€"Pheâ€"(4-X)â€"Pheâ€"NH2 nanostructures by variable electronic substitution. Chemical Communications, 2014, 50, 10630-10633.	4.1	31
80	Conducting Nanofibers and Organogels Derived from the Self-Assembly of Tetrathiafulvalene-Appended Dipeptides. Langmuir, 2014, 30, 12429-12437.	3.5	82
81	Differential Self-Assembly and Tunable Emission of Aromatic Peptide <i>Bola</i>-Amphiphiles Containing Perylene Bisimide in Polar Solvents Including Water. Langmuir, 2014, 30, 7576-7584.	3.5	86
82	Design of nanostructures based on aromatic peptide amphiphiles. Chemical Society Reviews, 2014, 43, 8150-8177.	38.1	690
83	Insights into the Coassembly of Hydrogelators and Surfactants Based on Aromatic Peptide Amphiphiles. Biomacromolecules, 2014, 15, 1171-1184.	5.4	91
84	Stable Emulsions Formed by Self-Assembly of Interfacial Networks of Dipeptide Derivatives. ACS Nano, 2014, 8, 7005-7013.	14.6	127
85	Extracellular matrix formation in self-assembled minimalistic bioactive hydrogels based on aromatic peptide amphiphiles. Journal of Tissue Engineering, 2014, 5, 204173141453159.	5.5	40
86	Assessing the Utility of Infrared Spectroscopy as a Structural Diagnostic Tool for Î²-Sheets in Self-Assembling Aromatic Peptide Amphiphiles. Langmuir, 2013, 29, 9510-9515.	3.5	128
87	Discovery of energy transfer nanostructures using gelation-driven dynamic combinatorial libraries. Chemical Science, 2013, 4, 3699.	7.4	78
88	Mechanistic insights into phosphatase triggered self-assembly including enhancement of biocatalytic conversion rate. Soft Matter, 2013, 9, 9430.	2.7	30
89	Antimicrobial properties of enzymatically triggered self-assembling aromatic peptide amphiphiles. Biomaterials Science, 2013, 1, 1138.	5.4	65
90	Enzyme responsive materials: design strategies and future developments. Biomaterials Science, 2013, 1, 11-39.	5.4	257

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91	Aromatic peptide amphiphiles: significance of the Fmoc moiety. Chemical Communications, 2013, 49, 10587.	4.1	112
92	Interfacing biodegradable molecular hydrogels with liquid crystals. Soft Matter, 2013, 9, 1188-1193.	2.7	14
93	Poly(vinylamine) microgels: pH-responsive particles with high primary amine contents. Soft Matter, 2013, 9, 3920.	2.7	31
94	Peptide Nanofibers with Dynamic Instability through Nonequilibrium Biocatalytic Assembly. Journal of the American Chemical Society, 2013, 135, 16789-16792.	13.7	275
95	Cooperative Self-Assembly of Peptide Gelators and Proteins. Biomacromolecules, 2013, 14, 4368-4376.	5.4	76
96	A Systematic Study on the Self-Assembly Behaviour of Multi Component Fmoc-Amino Acid-Poly(oxazoline) Systems. Polymers, 2012, 4, 1399-1415.	4.5	5
97	Phosphatase responsive peptide surfaces. Journal of Materials Chemistry, 2012, 22, 12229.	6.7	21
98	Dramatic Specificâ€ion Effect in Supramolecular Hydrogels. Chemistry - A European Journal, 2012, 18, 11723-11731.	3.3	106
99	Sequence/structure relationships in aromatic dipeptide hydrogels formed under thermodynamic control by enzyme-assisted self-assembly. Soft Matter, 2012, 8, 5595.	2.7	82
100	Charge complementary enzymatic reconfigurable polymeric nanostructures. Soft Matter, 2012, 8, 5127.	2.7	11
101	Differential supramolecular organisation of Fmoc-dipeptides with hydrophilic terminal amino acid residues by biocatalytic self-assembly. Soft Matter, 2012, 8, 11565.	2.7	48
102	Biofabricating Multifunctional Soft Matter with Enzymes and Stimuliâ€Responsive Materials. Advanced Functional Materials, 2012, 22, 3004-3012.	14.9	54
103	Micelle to fibre biocatalytic supramolecular transformation of an aromatic peptide amphiphile. Chemical Communications, 2011, 47, 728-730.	4.1	90
104	Mechanosensitive peptidegelation: mode of agitation controls mechanical properties and nano-scale morphology. Soft Matter, 2011, 7, 1732-1740.	2.7	63
105	Virtual Screening for Dipeptide Aggregation: Toward Predictive Tools for Peptide Self-Assembly. Journal of Physical Chemistry Letters, 2011, 2, 2380-2384.	4.6	185
106	Biocatalytic self-assembly of 2D peptide-based nanostructures. Soft Matter, 2011, 7, 10032.	2.7	60
107	Phosphatase/temperature responsive poly(2-isopropyl-2-oxazoline). Polymer Chemistry, 2011, 2, 306-308.	3.9	42
108	Exploiting CH-Ï€ interactions in supramolecular hydrogels of aromatic carbohydrate amphiphiles. Chemical Science, 2011, 2, 1349.	7.4	84

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109	Effect of Glycine Substitution on Fmocâ€“Diphenylalanine Self-Assembly and Gelation Properties. Langmuir, 2011, 27, 14438-14449.	3.5	177
110	Reversible Electroaddressing of Selfâ€assembling Aminoâ€Acid Conjugates. Advanced Functional Materials, 2011, 21, 1575-1580.	14.9	42
111	Characterisation of amino acid modified cellulose surfaces using ToF-SIMS and XPS. Cellulose, 2010, 17, 747-756.	4.9	35
112	Dynamic covalent chemistry in aid of peptide self-assembly. Current Opinion in Biotechnology, 2010, 21, 401-411.	6.6	64
113	Biocatalytic induction of supramolecular order. Nature Chemistry, 2010, 2, 1089-1094.	13.6	324
114	Enzymatic Catalyzed Synthesis and Triggered Gelation of Ionic Peptides. Langmuir, 2010, 26, 11297-11303.	3.5	93
115	Peptide and protein based materials in 2010: from design and structure to function and application. Chemical Society Reviews, 2010, 39, 3349.	38.1	111
116	An investigation of the conductivity of peptide nanotube networks prepared by enzyme-triggered self-assembly. Nanoscale, 2010, 2, 960.	5.6	139
117	Locking an oxidation-sensitive dynamic peptide system in the gel state. Chemical Communications, 2010, 46, 3481.	4.1	40
118	Raman optical activity of an achiral element in a chiral environment. Journal of Raman Spectroscopy, 2009, 40, 1093-1095.	2.5	16
119	Switchable surfactants: Small 5/2009. Small, 2009, 5, NA-NA.	10.0	0
120	Enzymeâ€Activated Surfactants for Dispersion of Carbon Nanotubes. Small, 2009, 5, 587-590.	10.0	62
121	Enzyme-assisted self-assembly under thermodynamic control. Nature Nanotechnology, 2009, 4, 19-24.	31.5	492
122	Self-assembled peptide-based hydrogels as scaffolds for anchorage-dependent cells. Biomaterials, 2009, 30, 2523-2530.	11.4	620
123	Fmoc-Diphenylalanine Self-Assembly Mechanism Induces Apparent p<i>K</i>_a Shifts. Langmuir, 2009, 25, 9447-9453.	3.5	390
124	Evolving nanomaterials using enzyme-driven dynamic peptide libraries (eDPL). Faraday Discussions, 2009, 143, 293.	3.2	54
125	Exploiting Enzymatic (Reversed) Hydrolysis in Directed Selfâ€Assembly of Peptide Nanostructures. Small, 2008, 4, 279-287.	10.0	145
126	Enzyme-responsive hydrogel particles for the controlled release of proteins: designing peptide actuators to match payload. Soft Matter, 2008, 4, 821.	2.7	120

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127	Protease-Triggered Dispersion of Nanoparticle Assemblies. Journal of the American Chemical Society, 2007, 129, 4156-4157.	13.7	233
128	Enzyme-Triggered Self-Assembly of Peptide Hydrogels via Reversed Hydrolysis. Journal of the American Chemical Society, 2006, 128, 1070-1071.	13.7	476
129	Solvent selection for solid-to-solid synthesis. Biotechnology and Bioengineering, 2002, 80, 509-515.	3.3	19
130	Comparison of methods for thermolysin-catalyzed peptide synthesis including a novel more active catalyst. Biotechnology and Bioengineering, 2000, 69, 633-638.	3.3	28