Bradley L Nilsson

List of Publications by Year
in descending order

77	5,611	37	73
papers	citations	h-index	g-index
		94433	79698

84	84	84	5204
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Staudinger Ligation:â€‰ A Peptide from a Thioester and Azide. Organic Letters, 2000, 2, 1939-1941.	4.6	482
2	Chemical Synthesis of Proteins. Annual Review of Biophysics and Biomolecular Structure, 2005, 34, 91-118.	18.3	290
3	Multicomponent peptide assemblies. Chemical Society Reviews, 2018, 47, 3659-3720.	38.1	264
4	Selenocysteine in Native Chemical Ligation and Expressed Protein Ligation. Journal of the American Chemical Society, 2001, 123, 5140-5141.	13.7	263
5	High-Yielding Staudinger Ligation of a Phosphinothioester and Azide To Form a Peptide. Organic Letters, 2001, 3, 9-12.	4.6	234
6	Site-Specific Protein Immobilization by Staudinger Ligation. Journal of the American Chemical Society, 2003, 125, 11790-11791.	13.7	228
7	Self-assembled amino acids and dipeptides as noncovalent hydrogels for tissue engineering. Polymer Chemistry, 2012, 3, 18-33.	3.9	225
8	A Reductive Trigger for Peptide Self-Assembly and Hydrogelation. Journal of the American Chemical Society, 2010, 132, 9526-9527.	13.7	203
9	Review selfâ€assembly of amphipathic Î²â€sheet peptides: Insights and applications. Biopolymers, 2012, 98, 169-184.	2.4	199
10	Self-assembly and hydrogelation promoted by F₅-phenylalanine. Soft Matter, 2010, 6, 475-479.	2.7	171
11	Tuning Î²-Sheet Peptide Self-Assembly and Hydrogelation Behavior by Modification of Sequence Hydrophobicity and Aromaticity. Biomacromolecules, 2011, 12, 2735-2745.	5.4	169
12	Coassembly of Enantiomeric Amphipathic Peptides into Amyloid-Inspired Rippled Î²-Sheet Fibrils. Journal of the American Chemical Society, 2012, 134, 5556-5559.	13.7	169
13	Reaction Mechanism and Kinetics of the Traceless Staudinger Ligation. Journal of the American Chemical Society, 2006, 128, 8820-8828.	13.7	157
14	The influence of side-chain halogenation on the self-assembly and hydrogelation of Fmoc-phenylalanine derivatives. Soft Matter, 2010, 6, 3220.	2.7	148
15	Protein Assembly by Orthogonal Chemical Ligation Methods. Journal of the American Chemical Society, 2003, 125, 5268-5269.	13.7	133
16	Effect of <i>C</i>-Terminal Modification on the Self-Assembly and Hydrogelation of Fluorinated Fmoc-Phe Derivatives. Langmuir, 2011, 27, 4029-4039.	3.5	129
17	Protein Prosthesis:â€‰ A Semisynthetic Enzyme with a Î²-Peptide Reverse Turn. Journal of the American Chemical Society, 2002, 124, 8522-8523.	13.7	117
18	The effect of increasing hydrophobicity on the self-assembly of amphipathic Î²-sheet peptides. Molecular BioSystems, 2009, 5, 1058.	2.9	106

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19	Staudinger Ligation of Î±-Azido Acids Retains Stereochemistry. Journal of Organic Chemistry, 2002, 67, 4993-4996.	3.2	96
20	Effects of Varied Sequence Pattern on the Self-Assembly of Amphipathic Peptides. Biomacromolecules, 2013, 14, 3267-3277.	5.4	94
21	Concise Synthesis of Guanidine-Containing Heterocycles Using the Biginelli Reaction. Journal of Organic Chemistry, 2006, 71, 7706-7714.	3.2	92
22	Stabilizing self-assembled Fmocâ€“F₅â€“Phe hydrogels by co-assembly with PEG-functionalized monomers. Chemical Communications, 2011, 47, 475-477.	4.1	89
23	Complementary Ï€â€“Ï€ Interactions Induce Multicomponent Coassembly into Functional Fibrils. Langmuir, 2011, 27, 11145-11156.	3.5	86
24	Substituent Effects on the Self-Assembly/Coassembly and Hydrogelation of Phenylalanine Derivatives. Langmuir, 2016, 32, 787-799.	3.5	84
25	Probing aromatic, hydrophobic, and steric effects on the self-assembly of an amyloid-Î² fragment peptide. Molecular BioSystems, 2011, 7, 486-496.	2.9	83
26	Role of amino acid hydrophobicity, aromaticity, and molecular volume on IAPP(20â€“29) amyloid selfâ€•assembly. Proteins: Structure, Function and Bioinformatics, 2012, 80, 1053-1065.	2.6	64
27	Multicomponent dipeptide hydrogels as extracellular matrix-mimetic scaffolds for cell culture applications. Chemical Communications, 2015, 51, 11260-11263.	4.1	63
28	Total Synthesis of (+)-Nankakurines A and B and (Â±)-5-<i>epi</i>-Nankakurine A. Journal of Organic Chemistry, 2010, 75, 7519-7534.	3.2	61
29	Low-Molecular-Weight Supramolecular Hydrogels for Sustained and Localized <i>in Vivo</i> Drug Delivery. ACS Applied Bio Materials, 2019, 2, 2116-2124.	4.6	59
30	Clarifying the influence of core amino acid hydrophobicity, secondary structure propensity, and molecular volume on amyloid-Î² 16â€“22 self-assembly. Molecular BioSystems, 2011, 7, 497-510.	2.9	57
31	Enantioselective Total Syntheses of Nankakurines A and B: Confirmation of Structure and Establishment of Absolute Configuration. Journal of the American Chemical Society, 2008, 130, 11297-11299.	13.7	54
32	Proteolytic stability of amphipathic peptide hydrogels composed of self-assembled pleated Î²-sheet or coassembled rippled Î²-sheet fibrils. Chemical Communications, 2014, 50, 10133-10136.	4.1	53
33	Amyloid-binding Small Molecules Efficiently Block SEVI (Semen-derived Enhancer of Virus Infection)- and Semen-mediated Enhancement of HIV-1 Infection. Journal of Biological Chemistry, 2010, 285, 35488-35496.	3.4	51
34	Spontaneous Transition of Self-assembled Hydrogel Fibrils into Crystalline Microtubes Enables a Rational Strategy To Stabilize the Hydrogel State. Langmuir, 2015, 31, 9933-9942.	3.5	48
35	Reversible photocontrol of self-assembled peptide hydrogel viscoelasticity. Polymer Chemistry, 2014, 5, 241-248.	3.9	45
36	Seminal Plasma Accelerates Semen-derived Enhancer of Viral Infection (SEVI) Fibril Formation by the Prostatic Acid Phosphatase (PAP248â€“286) Peptide. Journal of Biological Chemistry, 2012, 287, 11842-11849.	3.4	41

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37	Mechanisms of tau and AÎ²-induced excitotoxicity. Brain Research, 2016, 1634, 119-131.	2.2	40
38	An Azobenzene Photoswitch Sheds Light on Turn Nucleation in Amyloid-Î² Self-Assembly. ACS Chemical Neuroscience, 2012, 3, 211-220.	3.5	36
39	Modulating Supramolecular Peptide Hydrogel Viscoelasticity Using Biomolecular Recognition. Biomacromolecules, 2017, 18, 3591-3599.	5.4	34
40	Amide-Linked Ribonucleoside Dimers Derived from 5â€˜-Amino-5â€˜-deoxy- and 3â€˜-(Carboxymethyl)-3â€˜-deoxynucleoside Precursors1. Journal of Organic Chemistry, 1999, 64, 8183-8192.	3.2	33
41	Enhancement of HIV-1 Infectivity by Simple, Self-Assembling Modular Peptides. Biophysical Journal, 2011, 100, 1325-1334.	0.5	33
42	Synthesis and characterization of a novel class of reducing agents that are highly neuroprotective for retinal ganglion cells. Experimental Eye Research, 2006, 83, 1252-1259.	2.6	30
43	Sequence length determinants for selfâ€assembly of amphipathic Î²â€sheet peptides. Biopolymers, 2013, 100, 738-750.	2.4	30
44	Turn Nucleation Perturbs Amyloid Î² Self-Assembly and Cytotoxicity. Journal of Molecular Biology, 2012, 421, 315-328.	4.2	29
45	Self-Assembly, Hydrogelation, and Nanotube Formation by Cation-Modified Phenylalanine Derivatives. Langmuir, 2017, 33, 5803-5813.	3.5	29
46	Synthesis of Amide-Linked [(3â€²)CH₂CO-NH(5â€²)] Nucleoside Analogues of Small Oligonucleotides. Nucleosides, Nucleotides and Nucleic Acids, 2000, 19, 69-86.	1.1	28
47	Functional Delivery of siRNA by Disulfide-Constrained Cyclic Amphipathic Peptides. ACS Medicinal Chemistry Letters, 2016, 7, 584-589.	2.8	28
48	Rippled Î²-Sheet Formation by an Amyloid-Î² Fragment Indicates Expanded Scope of Sequence Space for Enantiomeric Î²-Sheet Peptide Coassembly. Molecules, 2019, 24, 1983.	3.8	27
49	Strategy to Identify Improved N-Terminal Modifications for Supramolecular Phenylalanine-Derived Hydrogelators. Langmuir, 2019, 35, 14939-14948.	3.5	24
50	Comparison of the Self-Assembly Behavior of Fmoc-Phenylalanine and Corresponding Peptoid Derivatives. Crystal Growth and Design, 2018, 18, 623-632.	3.0	23
51	Electrostatic interactions regulate the release of small molecules from supramolecular hydrogels. Journal of Materials Chemistry B, 2020, 8, 6366-6377.	5.8	23
52	Balancing hydrophobicity and sequence pattern to influence selfâ€assembly of amphipathic peptides. Peptide Science, 2018, 110, e23099.	1.8	22
53	Defining the Landscape of the Pauling-Corey Rippled Sheet: An Orphaned Motif Finding New Homes. Accounts of Chemical Research, 2021, 54, 2488-2501.	15.6	21
54	Investigating the effects of peptoid substitutions in selfâ€assembly of Fmocâ€diphenylalanine derivatives. Biopolymers, 2017, 108, e22994.	2.4	20

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55	Binding Mechanisms of Amyloid-like Peptides to Lipid Bilayers and Effects of Divalent Cations. ACS Chemical Neuroscience, 2021, 12, 2027-2035.	3.5	19
56	Thermodynamic Stability of Polar and Nonpolar Amyloid Fibrils. Journal of Chemical Theory and Computation, 2019, 15, 3868-3874.	5.3	16
57	RNAi therapeutic strategies for acute respiratory distress syndrome. Translational Research, 2019, 214, 30-49.	5.0	15
58	Using all-atom simulations in explicit solvent to study aggregation of amphipathic peptides into amyloid-like fibrils. Journal of Molecular Liquids, 2022, 347, 118283.	4.9	15
59	Selective Suspension of Single-Walled Carbon Nanotubes Using Î²-Sheet Polypeptides. Journal of Physical Chemistry C, 2014, 118, 5935-5944.	3.1	14
60	Display of functional proteins on supramolecular peptide nanofibrils using a split-protein strategy. Organic and Biomolecular Chemistry, 2017, 15, 5279-5283.	2.8	14
61	Impact of gelation method on thixotropic properties of phenylalanine-derived supramolecular hydrogels. Soft Matter, 2020, 16, 10158-10168.	2.7	14
62	Fluorescence detection of cationic amyloid fibrils in human semen. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5199-5202.	2.2	13
63	Quantum Dots for Improved Single-Molecule Localization Microscopy. Journal of Physical Chemistry B, 2021, 125, 2566-2576.	2.6	12
64	Redox-sensitive reversible self-assembly of amino acidâ€“naphthalene diimide conjugates. Interface Focus, 2017, 7, 20160099.	3.0	11
65	Capacity for increased surface area in the hydrophobic core of <i>Î²</i>â€sheet peptide bilayer nanoribbons. Journal of Peptide Science, 2021, 27, e3334.	1.4	11
66	Self-Assembling Hydrogels. , 2016, , 219-250.		9
67	Multivalent display of chemical signals on <scp>selfâ€assembled</scp> peptide scaffolds. Peptide Science, 2021, 113, e24224.	1.8	8
68	Amyloidâ€Inspired Optical Waveguides from Multicomponent Crystalline Microtubes. ChemNanoMat, 2016, 2, 800-804.	2.8	7
69	An Efficient Synthesis of [15N]-Carbazole from [15N]-Aniline. Synthetic Communications, 1999, 29, 3821-3827.	2.1	4
70	Effects of Ions and Small Compounds on the Structure of AÎ²42 Monomers. Journal of Physical Chemistry B, 2021, 125, 1085-1097.	2.6	3
71	Synthesis and Application of Peptideâ€“siRNA Nanoparticles from Disulfide-Constrained Cyclic Amphipathic Peptides for the Functional Delivery of Therapeutic Oligonucleotides to the Lung. Methods in Molecular Biology, 2021, 2208, 49-67.	0.9	3
72	Incorporation of an Azobenzene Î²-Turn Peptidomimetic into Amyloid-Î² to Probe Potential Structural Motifs Leading to Î²-Sheet Self-Assembly. Methods in Molecular Biology, 2018, 1777, 387-406.	0.9	2

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73	Correction to An Azobenzene Photoswitch Sheds Light on Turn Nucleation in Amyloid-Î² Self-Assembly. ACS Chemical Neuroscience, 2012, 3, 336-336.	3.5	1
74	Self-Assembled Peptide Materials for Prevention of HIV-1 Transmission. , 2013, , .		1
75	Protein Assembly to Mine the Human Genome. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2003, , 359-369.	0.1	1
76	Elucidating the neuropathophysiology of COVID-19 using quantum dot biomimetics of SARS-CoV-2. , 2022, , .		1
77	Peptide Cross-Î² Nanoarchitectures: Characterizing Self-Assembly Mechanisms, Structure, and Physicochemical Properties. Nanostructure Science and Technology, 2022, , 179-207.	0.1	0