

James Nowick

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124
papers

5,573
citations

45
h-index

70
g-index

138
ext. papers

6,142
ext. citations

10.1
avg, IF

5.93
L-index

#	Paper	IF	Citations
124	Synthesis and application of fluorescent teixobactin analogs.. <i>Methods in Enzymology</i> , 2022 , 665, 233-258.	5.7	0
123	Visualizing Teixobactin Supramolecular Assemblies and Cell Wall Damage in Using CryoEM. <i>ACS Omega</i> , 2021 , 6, 27412-27417	3.9	0
122	Expression of N-Terminal Cysteine A and Conjugation to Generate Fluorescent and Biotinylated A. <i>Biochemistry</i> , 2021 , 60, 1191-1200	3.2	0
121	Structure-based drug design of an inhibitor of the SARS-CoV-2 (COVID-19) main protease using free software: A tutorial for students and scientists. <i>European Journal of Medicinal Chemistry</i> , 2021 , 218, 113390	6.8	10
120	An aza-Diels-Alder route to quinoline-based unnatural amino acids and polypeptide surrogates. <i>RSC Advances</i> , 2021 , 11, 14132-14139	3.7	0
119	Synthesis and study of macrocyclic hairpin peptides for investigating amyloid oligomers. <i>Methods in Enzymology</i> , 2021 , 656, 123-168	1.7	0
118	An Improved Turn Structure for Inducing Hairpin Formation in Peptides. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 22776-22782	16.4	0
117	An Improved Turn Structure for Inducing Hairpin Formation in Peptides. <i>Angewandte Chemie</i> , 2021 , 133, 22958	3.6	0
116	Exploring amyloid oligomers with peptide model systems. <i>Current Opinion in Chemical Biology</i> , 2021 , 64, 106-115	9.7	2
115	A cyclic peptide inhibitor of the SARS-CoV-2 main protease. <i>European Journal of Medicinal Chemistry</i> , 2021 , 221, 113530	6.8	5
114	Effects of N-Terminal Residues on the Assembly of Constrained Hairpin Peptides Derived from A. <i>Journal of the American Chemical Society</i> , 2020 , 142, 11593-11601	16.4	9
113	X-ray Crystallography Reveals Parallel and Antiparallel Sheet Dimers of a Hairpin Derived from A that Assemble to Form Different Tetramers. <i>ACS Chemical Neuroscience</i> , 2020 , 11, 2340-2347	5.7	9
112	A Fluorescent Teixobactin Analogue. <i>ACS Chemical Biology</i> , 2020 , 15, 1222-1231	4.9	9
111	Structure-Based Drug Design of an Inhibitor of the SARS-CoV-2 (COVID-19) Main Protease Using Free Software: A Tutorial for Students and Scientists. <i>ChemRxiv</i> , 2020 ,	4.4	3
110	Structural Interaction of Apolipoprotein A-I Mimetic Peptide with Amyloid-Generates Toxic Hetero-oligomers. <i>Journal of Molecular Biology</i> , 2020 , 432, 1020-1034	6.5	18
109	Anaphylaxis Induced by Peptide Coupling Agents: Lessons Learned from Repeated Exposure to HATU, HBTU, and HCTU. <i>Journal of Organic Chemistry</i> , 2020 , 85, 1764-1768	4.2	41
108	Design, Synthesis, and Study of Lactam and Ring-Expanded Analogues of Teixobactin. <i>Journal of Organic Chemistry</i> , 2020 , 85, 1331-1339	4.2	4

107	Phenylalanine Mutation to Cyclohexylalanine Facilitates Triangular Trimer Formation by β Hairpins Derived from A β . <i>Journal of the American Chemical Society</i> , 2020 , 142, 20708-20716	16.4	3
106	Interpenetrating Cubes in the X-ray Crystallographic Structure of a Peptide Derived from Medin. <i>Journal of the American Chemical Society</i> , 2020 , 142, 15870-15875	16.4	5
105	Structure-Based Peptide Inhibitor Design of Amyloid- β Aggregation. <i>Frontiers in Molecular Neuroscience</i> , 2019 , 12, 54	6.1	36
104	Elucidating the Structures of Amyloid Oligomers with Macrocyclic β Hairpin Peptides: Insights into Alzheimer's Disease and Other Amyloid Diseases. <i>Accounts of Chemical Research</i> , 2018 , 51, 706-718	24.3	62
103	Controlling the Oligomerization State of A β Derived Peptides with Light. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5842-5852	16.4	13
102	Effects of charge and hydrophobicity on the oligomerization of peptides derived from IAPP. <i>Bioorganic and Medicinal Chemistry</i> , 2018 , 26, 1151-1156	3.4	8
101	Repurposing Triphenylmethane Dyes to Bind to Trimers Derived from A β . <i>Journal of the American Chemical Society</i> , 2018 , 140, 11745-11754	16.4	20
100	X-ray Crystallographic Structure of a Teixobactin Derivative Reveals Amyloid-like Assembly. <i>Journal of the American Chemical Society</i> , 2018 , 140, 14028-14032	16.4	19
99	Structural Polymorphs Suggest Competing Pathways for the Formation of Amyloid Fibrils That Diverge from a Common Intermediate Species. <i>Biochemistry</i> , 2018 , 57, 6470-6478	3.2	14
98	An Efficient Method for the Expression and Purification of A β (M1-42). <i>Biochemistry</i> , 2018 , 57, 3861-3866	3.2	10
97	X-ray crystallographic structure of a teixobactin analogue reveals key interactions of the teixobactin pharmacophore. <i>Chemical Communications</i> , 2017 , 53, 2772-2775	5.8	43
96	X-ray Crystallographic Structure of a Compact Dodecamer from a Peptide Derived from A β . <i>Organic Letters</i> , 2017 , 19, 3462-3465	6.2	14
95	X-ray Crystallographic Structure of a Giant Double-Walled Peptide Nanotube Formed by a Macrocyclic β Sheet Containing A β . <i>Journal of the American Chemical Society</i> , 2017 , 139, 8102-8105	16.4	14
94	Stabilization, Assembly, and Toxicity of Trimers Derived from A β . <i>Journal of the American Chemical Society</i> , 2017 , 139, 966-975	16.4	43
93	Alanine scan reveals modifiable residues in teixobactin. <i>Chemical Communications</i> , 2017 , 53, 11357-11359	5.8	28
92	A Hexamer of a Peptide Derived from A β . <i>Biochemistry</i> , 2017 , 56, 6061-6071	3.2	13
91	Transmembrane Proteins: Amyloids Hidden in Plain Sight?. <i>Biochemistry</i> , 2017 , 56, 4735-4736	3.2	1
90	A Tetramer Derived from Islet Amyloid Polypeptide. <i>Journal of Organic Chemistry</i> , 2017 , 82, 7905-7912	4.2	11

89	Coassembly of Peptides Derived from β -Sheet Regions of β -Amyloid. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13891-13900	16.4	21
88	Elucidation of the Teixobactin Pharmacophore. <i>ACS Chemical Biology</i> , 2016 , 11, 1823-6	4.9	69
87	X-ray Crystallographic Structures of a Trimer, Dodecamer, and Annular Pore Formed by an A β 17-36 β -Hairpin. <i>Journal of the American Chemical Society</i> , 2016 , 138, 4634-42	16.4	54
86	Square channels formed by a peptide derived from transthyretin. <i>Chemical Science</i> , 2016 , 7, 6946-6951	9.4	6
85	X-ray Crystallographic Structure of Oligomers Formed by a Toxic β -Hairpin Derived from β -Synuclein: Trimers and Higher-Order Oligomers. <i>Journal of the American Chemical Society</i> , 2016 , 138, 4458-67	16.4	39
84	Assembly of Peptides Derived from β -Sheet Regions of β -Amyloid. <i>Journal of the American Chemical Society</i> , 2016 , 138, 13882-13890	16.4	27
83	X-ray Crystallographic Structures of Oligomers of Peptides Derived from α -Microglobulin. <i>Journal of the American Chemical Society</i> , 2015 , 137, 6304-11	16.4	31
82	Diversification of β -Augmentation Interactions between CDI Toxin/Immunity Proteins. <i>Journal of Molecular Biology</i> , 2015 , 427, 3766-84	6.5	28
81	A Newcomer's Guide to Peptide Crystallography. <i>Israel Journal of Chemistry</i> , 2015 , 55, 698-710	3.4	17
80	X-ray crystallographic structures of trimers and higher-order oligomeric assemblies of a peptide derived from A β (17-36). <i>Journal of the American Chemical Society</i> , 2014 , 136, 5595-8	16.4	69
79	A fibril-like assembly of oligomers of a peptide derived from β -amyloid. <i>Journal of the American Chemical Society</i> , 2014 , 136, 12682-90	16.4	30
78	Polymorphism of oligomers of a peptide from β -amyloid. <i>Journal of the American Chemical Society</i> , 2014 , 136, 5432-42	16.4	23
77	Structures of oligomers of a peptide from β -amyloid. <i>Journal of the American Chemical Society</i> , 2013 , 135, 12460-7	16.4	46
76	Mechanism of IAPP amyloid fibril formation involves an intermediate with a transient β -sheet. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 19285-90	11.5	182
75	The supramolecular chemistry of β -sheets. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5477-92	16.4	125
74	A hydrophobic surface is essential to inhibit the aggregation of a tau-protein-derived hexapeptide. <i>Journal of the American Chemical Society</i> , 2013 , 135, 6846-52	16.4	21
73	Recipe for β -sheets: Foldamers Containing Amyloidogenic Peptide Sequences. <i>European Journal of Organic Chemistry</i> , 2013 , 2013, 3523-3528	3.2	33
72	Litter decay rates are determined by lignin chemistry. <i>Biogeochemistry</i> , 2012 , 108, 279-295	3.8	118

71	Out-of-register β -sheets suggest a pathway to toxic amyloid aggregates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 20913-8	11.5	149
70	Heterodivalent linked macrocyclic β -sheets with enhanced activity against A β aggregation: two sites are better than one. <i>Journal of the American Chemical Society</i> , 2012 , 134, 14179-84	16.4	20
69	Amyloid β -sheet mimics that antagonize protein aggregation and reduce amyloid toxicity. <i>Nature Chemistry</i> , 2012 , 4, 927-33	17.6	174
68	Giant macrolactams based on β -sheet peptides. <i>Journal of Organic Chemistry</i> , 2011 , 76, 3166-73	4.2	13
67	Characteristics of amyloid-related oligomers revealed by crystal structures of macrocyclic β -sheet mimics. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6736-44	16.4	73
66	Macrocyclic β -sheet peptides that inhibit the aggregation of a tau-protein-derived hexapeptide. <i>Journal of the American Chemical Society</i> , 2011 , 133, 3144-57	16.4	98
65	X-ray crystallographic structure of an artificial beta-sheet dimer. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11622-8	16.4	36
64	Nanometer-scale water-soluble macrocycles from nanometer-sized amino acids. <i>Journal of Organic Chemistry</i> , 2010 , 75, 1822-30	4.2	9
63	A new artificial beta-sheet that dimerizes through parallel beta-sheet interactions. <i>Organic Letters</i> , 2009 , 11, 1003-6	6.2	9
62	Use of disulfide "staples" to stabilize beta-sheet quaternary structure. <i>Organic Letters</i> , 2009 , 11, 3000-3	6.2	30
61	Exploring beta-sheet structure and interactions with chemical model systems. <i>Accounts of Chemical Research</i> , 2008 , 41, 1319-30	24.3	185
60	Functionalized analogues of an unnatural amino acid that mimics a tripeptide beta-strand. <i>Organic Letters</i> , 2008 , 10, 5293-6	6.2	18
59	Artificial beta-sheets: chemical models of beta-sheets. <i>Current Opinion in Chemical Biology</i> , 2008 , 12, 722-9	9.7	63
58	An artificial beta-sheet that dimerizes through parallel beta-sheet interactions. <i>Journal of the American Chemical Society</i> , 2007 , 129, 13043-8	16.4	30
57	Cyclic modular beta-sheets. <i>Journal of the American Chemical Society</i> , 2007 , 129, 2548-58	16.4	47
56	Macrocyclic beta-sheet peptides that mimic protein quaternary structure through intermolecular beta-sheet interactions. <i>Journal of the American Chemical Society</i> , 2007 , 129, 5558-69	16.4	67
55	Nanometer-sized amino acids for the synthesis of nanometer-scale water-soluble molecular rods of precise length. <i>Journal of the American Chemical Society</i> , 2007 , 129, 7272-3	16.4	31
54	A new class of macrocyclic receptors from iota-peptides. <i>Journal of the American Chemical Society</i> , 2007 , 129, 1486-7	16.4	29

53	What I have learned by using chemical model systems to study biomolecular structure and interactions. <i>Organic and Biomolecular Chemistry</i> , 2006 , 4, 3869-85	3.9	46
52	The absence of favorable aromatic interactions between beta-sheet peptides. <i>Journal of the American Chemical Society</i> , 2005 , 127, 9998-9	16.4	42
51	Enantioselective molecular recognition between beta-sheets. <i>Journal of the American Chemical Society</i> , 2004 , 126, 3062-3	16.4	45
50	Sequence-selective molecular recognition between beta sheets. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 1765-8	16.4	39
49	A ribozyme with michaelase activity: synthesis of the substrate precursors. <i>Bioorganic and Medicinal Chemistry</i> , 2003 , 11, 235-49	3.4	55
48	DSA: a new internal standard for NMR studies in aqueous solution. <i>Organic Letters</i> , 2003 , 5, 3511-3	6.2	57
47	A new turn structure for the formation of beta-hairpins in peptides. <i>Journal of the American Chemical Society</i> , 2003 , 125, 876-7	16.4	83
46	Dityrosine cross-linked Abeta peptides: fibrillar beta-structure in Abeta(1-40) is conducive to formation of dityrosine cross-links but a dityrosine cross-link in Abeta(8-14) does not induce beta-structure. <i>Chemical Research in Toxicology</i> , 2003 , 16, 531-5	4	32
45	Three-stranded mixed artificial β sheets. <i>Tetrahedron</i> , 2002 , 58, 727-739	2.4	21
44	An unnatural amino acid that induces beta-sheet folding and interaction in peptides. <i>Journal of the American Chemical Society</i> , 2002 , 124, 4972-3	16.4	80
43	Methylglyoxal synthetase, enol-pyruvaldehyde, glutathione and the glyoxalase system. <i>Journal of the American Chemical Society</i> , 2002 , 124, 13047-52	16.4	11
42	Novel RNA catalysts for the Michael reaction. <i>Chemistry and Biology</i> , 2001 , 8, 459-73		95
41	A triply templated artificial beta-sheet. <i>Journal of the American Chemical Society</i> , 2001 , 123, 5176-80	16.4	41
40	Synthesis, incorporation efficiency, and stability of disulfide bridged functional groups at RNA 5' ends. <i>Bioorganic and Medicinal Chemistry</i> , 2000 , 8, 1317-29	3.4	45
39	An Unnatural Amino Acid that Mimics a Tripeptide β Strand and Forms β Sheetlike Hydrogen-Bonded Dimers. <i>Journal of the American Chemical Society</i> , 2000 , 122, 7654-7661	16.4	130
38	Fmoc: a more soluble analogue of the 9-fluorenylmethoxycarbonyl protecting group. <i>Journal of Organic Chemistry</i> , 2000 , 65, 3858-60	4.2	40
37	Designed molecules that fold to mimic protein secondary structures. <i>Current Opinion in Chemical Biology</i> , 1999 , 3, 714-23	9.7	196
36	Two new beta-strand mimics. <i>Bioorganic and Medicinal Chemistry</i> , 1999 , 7, 29-38	3.4	25

- 35 Folding of an Artificial β -sheet in Competitive Solvents. *Journal of Organic Chemistry*, **1999**, 64, 2527-2531. 4.2 18
- 34 Chemical Models of Protein β -sheets. *Accounts of Chemical Research*, **1999**, 32, 287-296 24.3 170
- 33 A Chemical Model of a Protein β -sheet Dimer. *Journal of the American Chemical Society*, **1999**, 121, 8409-8410. 4.1 52
- 32 A Peptide/Oligourea/Azapeptide Hybrid That Adopts a Hairpin Turn. *Journal of Organic Chemistry*, **1999**, 64, 276-281 4.2 33
- 31 Design and synthesis of a transition state analogue for the Diels-Alder reaction. *Bioorganic and Medicinal Chemistry*, **1998**, 6, 1421-8 3.4 6
- 30 An efficient synthesis of N,N'-linked oligoureas. *Tetrahedron Letters*, **1998**, 39, 6613-6616 2 28
- 29 The Alginate Demonstration: Polymers, Food Science, and Ion Exchange. *Journal of Chemical Education*, **1998**, 75, 1430 2.4 23
- 28 An Artificial Antiparallel β -sheet Containing a New Peptidomimetic Template. *Journal of Organic Chemistry*, **1997**, 62, 7906-7907 4.2 29
- 27 The Propensities of Amino Acids To Form Parallel β -sheets. *Journal of the American Chemical Society*, **1997**, 119, 10903-10908 16.4 34
- 26 Solid-Phase Synthesis of Artificial β -sheets. *Journal of the American Chemical Society*, **1997**, 119, 7665-7669. 16.4 64
- 25 An Extended β -strand Mimic for a Larger Artificial β -sheet. *Journal of the American Chemical Society*, **1997**, 119, 5413-5424 16.4 65
- 24 Unnatural oligomers and unnatural oligomer libraries. *Current Opinion in Chemical Biology*, **1997**, 1, 120-9. 7 46
- 23 Synthesis of Peptide Isocyanates and Isothiocyanates. *Journal of Organic Chemistry*, **1996**, 61, 3929-3934. 4.2 109
- 22 Triurea Derivatives of Diethylenetriamine as Potential Templates for the Formation of Artificial β -sheets¹. *Journal of the American Chemical Society*, **1996**, 118, 1066-1072 16.4 77
- 21 An Artificial β -sheet Comprising a Molecular Scaffold, a β -strand Mimic, and a Peptide Strand¹. *Journal of the American Chemical Society*, **1996**, 118, 2764-2765 16.4 79
- 20 A Coordinated Chemistry Outreach Program for Thousands of High School Students. *Journal of Chemical Education*, **1996**, 73, 762 2.4 12
- 19 Artificial β -sheets. *Chemical Society Reviews*, **1996**, 25, 401-415 58.5 89
- 18 Molecular Scaffolds. 2. Intramolecular Hydrogen Bonding in 1,2-Diaminoethane Diureas. *Journal of the American Chemical Society*, **1995**, 117, 89-99 16.4 76

17	Molecular Scaffolds. 3. An Artificial Parallel .beta.-Sheet. <i>Journal of Organic Chemistry</i> , 1995 , 60, 7386-7387	4.2	73
16	A Novel Hydrogen-Bonded Dimer Containing a 16-Membered Ring. <i>Journal of Organic Chemistry</i> , 1995 , 60, 1888-1890	4.2	7
15	Molecular Recognition between Uncharged Molecules in Aqueous Micelles. <i>Journal of the American Chemical Society</i> , 1994 , 116, 3285-9	16.4	84
14	Molecular recognition in micelles: the roles of hydrogen bonding and hydrophobicity in adenine-thymine base-pairing in SDS micelles. <i>Journal of the American Chemical Society</i> , 1993 , 115, 7636-7644	16.4	149
13	Molecular scaffolds. I. Intramolecular hydrogen bonding in a family of di- and triureas. <i>Journal of Organic Chemistry</i> , 1992 , 57, 3763-3765	4.2	77
12	Molecular recognition in aqueous micellar solution: adenine-thymine base-pairing in SDS micelles. <i>Journal of the American Chemical Society</i> , 1992 , 114, 1107-1108	16.4	68
11	An improved method for the synthesis of enantiomerically pure amino acid ester isocyanates. <i>Journal of Organic Chemistry</i> , 1992 , 57, 7364-7366	4.2	136
10	Kinetic studies and modeling of a self-replicating system. <i>Journal of the American Chemical Society</i> , 1991 , 113, 8831-8839	16.4	129
9	A practical and efficient method for the synthesis of .beta.-lactones. <i>Journal of Organic Chemistry</i> , 1991 , 56, 1176-1185	4.2	87
8	Convergent functional groups. 9. Complexation in new molecular clefts. <i>Journal of the American Chemical Society</i> , 1990 , 112, 8902-8906	16.4	95
7	The MIT Chemistry Outreach Program: Graduate students presenting chemistry to high school students. <i>Journal of Chemical Education</i> , 1989 , 66, 668	2.4	3
6	Application of (.alpha.-phosphonoacyl)silane reagents to the synthesis of .alpha.,.beta.-unsaturated acylsilanes. <i>Journal of Organic Chemistry</i> , 1989 , 54, 2798-2802	4.2	36
5	Chemistry of cyclopropylacylsilanes I. Functionalized acylsilane reagents for the cyclopropanation of electrophilic alkenes. <i>Tetrahedron</i> , 1988 , 44, 4113-4134	2.4	37
4	Apolipoprotein A-I Mimetic 4F Peptide Generates Amyloid Cytotoxins by Forming Hetero-oligomers with β -Amyloid		1
3	Structure-Based Design of a Cyclic Peptide Inhibitor of the SARS-CoV-2 Main Protease		1
2	Synthesis of β -Lactones and Alkenes via Thiol Esters: (E)-2,3-Dimethyl-3-Dodecene61-61		1
1	Synthesis of Amino Acid Ester Isocyanates: Methyl (S)-2-Isocyanato-3-Phenylpropanoate220-220		3