

Stephen B H Kent

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.

118
papers

9,259
citations

47
h-index

95
g-index

128
ext. papers

9,736
ext. citations

9.8
avg, IF

6.53
L-index

#	Paper	IF	Citations
118	Characterization of Protein Molecules Prepared by Total Chemical Synthesis 2021 , 1-15		
117	A Non-immunogenic Bivalent d-Protein Potently Inhibits Retinal Vascularization and Tumor Growth. <i>ACS Chemical Biology</i> , 2021 , 16, 548-556	4.9	0
116	Chemical Synthesis of an Enzyme Containing an Artificial Catalytic Apparatus. <i>Australian Journal of Chemistry</i> , 2020 , 73, 321	1.2	
115	Visualizing Tetrahedral Oxyanion Bound in HIV-1 Protease Using Neutrons: Implications for the Catalytic Mechanism and Drug Design. <i>ACS Omega</i> , 2020 , 5, 11605-11617	3.9	2
114	Total synthesis of bovine pancreatic trypsin inhibitor and the protein diastereomer [Gly37D-Ala]BPTI using Boc chemistry solid phase peptide synthesis. <i>Peptide Science</i> , 2020 , 112, e24166 ³		4
113	Novel protein science enabled by total chemical synthesis. <i>Protein Science</i> , 2019 , 28, 313-328	6.3	45
112	Inversion of the Side-Chain Stereochemistry of Individual Thr or Ile Residues in a Protein Molecule: Impact on the Folding, Stability, and Structure of the ShK Toxin. <i>Angewandte Chemie</i> , 2017 , 129, 3372-3376 ^{3,6}		0
111	Inversion of the Side-Chain Stereochemistry of Individual Thr or Ile Residues in a Protein Molecule: Impact on the Folding, Stability, and Structure of the ShK Toxin. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 3324-3328	16.4	12
110	Perplexing cooperative folding and stability of a low-sequence complexity, polyproline 2 protein lacking a hydrophobic core. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 2241-2246	11.5	21
109	Mapping of voltage sensor positions in resting and inactivated mammalian sodium channels by LRET. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E1857-E1865 ^{11,5}		29
108	Scope and Limitations of Fmoc Chemistry SPPS-Based Approaches to the Total Synthesis of Insulin Lispro via Ester Insulin. <i>Chemistry - A European Journal</i> , 2017 , 23, 1709-1716	4.8	10
107	Chemical protein synthesis: Inventing synthetic methods to decipher how proteins work. <i>Bioorganic and Medicinal Chemistry</i> , 2017 , 25, 4926-4937	3.4	45
106	Reinvestigation of the biological activity of d-allo-ShK protein. <i>Journal of Biological Chemistry</i> , 2017 , 292, 12599-12605	5.4	5
105	Chemical synthesis and enzymatic properties of RNase A analogues designed to enhance second-step catalytic activity. <i>Organic and Biomolecular Chemistry</i> , 2016 , 14, 8804-8814	3.9	1
104	Obviation of hydrogen fluoride in Boc chemistry solid phase peptide synthesis of peptide-thioesters. <i>Chemical Communications</i> , 2016 , 52, 13979-13982	5.8	9
103	A Potent d-Protein Antagonist of VEGF-A is Nonimmunogenic, Metabolically Stable, and Longer-Circulating in Vivo. <i>ACS Chemical Biology</i> , 2016 , 11, 1058-65	4.9	51
102	Elucidation of the Covalent and Tertiary Structures of Biologically Active Ts3 Toxin. <i>Angewandte Chemie</i> , 2016 , 128, 8781-8784	3.6	2

101	Elucidation of the Covalent and Tertiary Structures of Biologically Active Ts3 Toxin. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 8639-42	16.4	13
100	Crystallization of Enantiomerically Pure Proteins from Quasi-Racemic Mixtures: Structure Determination by X-Ray Diffraction of Isotope-Labeled Ester Insulin and Human Insulin. <i>ChemBioChem</i> , 2016 , 17, 421-5	3.8	10
99	Efficient Total Chemical Synthesis of (13) C=(18) O Isotopomers of Human Insulin for Isotope-Edited FTIR. <i>ChemBioChem</i> , 2016 , 17, 415-20	3.8	16
98	β -subunit-induced structural rearrangements of the Ca ²⁺ - and voltage-activated K ⁺ (BK) channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E3231-9	11.5	13
97	Enhanced Solvation of Peptides Attached to "Solid-Phase" Resins: Straightforward Syntheses of the Elastin Sequence Pro-Gly-Val-Gly-Val-Pro-Gly-Val-Gly-Val. <i>Organic Letters</i> , 2015 , 17, 3521-3	6.2	13
96	Photosensitivity of neurons enabled by cell-targeted gold nanoparticles. <i>Neuron</i> , 2015 , 86, 207-17	13.9	221
95	A functional role of Rv1738 in Mycobacterium tuberculosis persistence suggested by racemic protein crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 4310-5	11.5	34
94	The critical role of peptide chemistry in the life sciences. <i>Journal of Peptide Science</i> , 2015 , 21, 136-8	2.1	14
93	(Quasi-)racemic X-ray structures of glycosylated and non-glycosylated forms of the chemokine Ser-CCL1 prepared by total chemical synthesis. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5194-8	16.4	50
92	Total chemical synthesis of the enzyme sortase A(N59) with full catalytic activity. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 4662-6	16.4	21
91	Total chemical synthesis and biological activities of glycosylated and non-glycosylated forms of the chemokines CCL1 and Ser-CCL1. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5188-93	16.4	33
90	(Quasi-)Racemic X-ray Structures of Glycosylated and Non-Glycosylated Forms of the Chemokine Ser-CCL1 Prepared by Total Chemical Synthesis. <i>Angewandte Chemie</i> , 2014 , 126, 5294-5298	3.6	11
89	Total Chemical Synthesis of the Enzyme Sortase AN59 with Full Catalytic Activity. <i>Angewandte Chemie</i> , 2014 , 126, 4750-4754	3.6	6
88	Total Chemical Synthesis and Biological Activities of Glycosylated and Non-Glycosylated Forms of the Chemokines CCL1 and Ser-CCL1. <i>Angewandte Chemie</i> , 2014 , 126, 5288-5293	3.6	3
87	Total chemical synthesis of biologically active fluorescent dye-labeled Ts1 toxin. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 8970-4	16.4	24
86	Total Chemical Synthesis of Biologically Active Fluorescent Dye-Labeled Ts1 Toxin. <i>Angewandte Chemie</i> , 2014 , 126, 9116-9120	3.6	3
85	Deciphering a molecular mechanism of neonatal diabetes mellitus by the chemical synthesis of a protein diastereomer, [D-AlaB8]human proinsulin. <i>Journal of Biological Chemistry</i> , 2014 , 289, 23683-92	5.4	15
84	Native chemical ligation at Asx-Cys, Glx-Cys: chemical synthesis and high-resolution X-ray structure of ShK toxin by racemic protein crystallography. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11911-9	16.4	75

83	Total chemical synthesis of fully functional Photoactive Yellow Protein. <i>Bioorganic and Medicinal Chemistry</i> , 2013 , 21, 3436-42	3.4	8
82	Neoglycoprotein Synthesis Using the Copper-Catalyzed Azide-Alkyne Click Reaction and Native Chemical Ligation 2013 , 251-270		2
81	Fully convergent chemical synthesis of ester insulin: determination of the high resolution X-ray structure by racemic protein crystallography. <i>Journal of the American Chemical Society</i> , 2013 , 135, 3173-85	16.4	73
80	Die Wissenschaft von Proteinen im Reich der organischen Chemie begründen: Totalsynthese von SEP (synthetisches Erythropoeseprotein). <i>Angewandte Chemie</i> , 2013 , 125, 12208-12217	3.6	10
79	Bringing the science of proteins into the realm of organic chemistry: total chemical synthesis of SEP (synthetic erythropoiesis protein). <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 11988-96	16.4	28
78	Total Chemical Protein Synthesis for the Determination of Novel X-ray Structures by Racemic Protein Crystallography. <i>NATO Science for Peace and Security Series A: Chemistry and Biology</i> , 2013 , 11-22 ^{0.1}		
77	Convergent chemical synthesis of [lysine(24,38,83)] human erythropoietin. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 993-9	16.4	69
76	Design, total chemical synthesis, and X-ray structure of a protein having a novel linear-loop polypeptide chain topology. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 1481-6	16.4	42
75	Ionization state of the catalytic dyad Asp25/25R in the HIV-1 protease: NMR studies of site-specifically ¹³ C labelled HIV-1 protease prepared by total chemical synthesis. <i>Organic and Biomolecular Chemistry</i> , 2012 , 10, 5887-91	3.9	22
74	Racemic protein crystallography. <i>Annual Review of Biophysics</i> , 2012 , 41, 41-61	21.1	128
73	Single-wavelength phasing strategy for quasi-racemic protein crystal diffraction data. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2012 , 68, 62-8		9
72	Through the looking glass--a new world of proteins enabled by chemical synthesis. <i>Journal of Peptide Science</i> , 2012 , 18, 428-36	2.1	33
71	Convergent Chemical Synthesis of [Lysine24, 38, 83] Human Erythropoietin. <i>Angewandte Chemie</i> , 2012 , 124, 1017-1023	3.6	32
70	Design, Total Chemical Synthesis, and X-Ray Structure of a Protein Having a Novel Linear-Loop Polypeptide Chain Topology. <i>Angewandte Chemie</i> , 2012 , 124, 1510-1515	3.6	13
69	Chemical synthesis and X-ray structure of a heterochiral {D-protein antagonist plus vascular endothelial growth factor} protein complex by racemic crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 14779-84	11.5	100
68	Single-Molecule Studies of HIV-1 Protease Catalysis Enabled by Chemical Protein Synthesis. <i>Israel Journal of Chemistry</i> , 2011 , 51, 960-967	3.4	5
67	Total Chemical Synthesis of Biologically Active Vascular Endothelial Growth Factor. <i>Angewandte Chemie</i> , 2011 , 123, 8179-8183	3.6	12
66	Total chemical synthesis of biologically active vascular endothelial growth factor. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 8029-33	16.4	47

65	Synthesis of tripeptide mimetics based on dihydroquinolinone and benzoxazinone scaffolds. <i>Chemistry - A European Journal</i> , 2011 , 17, 13983-6	4.8	8
64	Protein conformational dynamics in the mechanism of HIV-1 protease catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 20982-7	11.5	77
63	Contribution of residue B5 to the folding and function of insulin and IGF-I: constraints and fine-tuning in the evolution of a protein family. <i>Journal of Biological Chemistry</i> , 2010 , 285, 5040-55	5.4	20
62	Total chemical synthesis and X-ray structure of kalitoxin by racemic protein crystallography. <i>Chemical Communications</i> , 2010 , 46, 8174-6	5.8	42
61	Total chemical synthesis of human proinsulin. <i>Chemical Communications</i> , 2010 , 46, 8177-9	5.8	17
60	Design and folding of [GluA4(ObetaThrB30)]insulin ("ester insulin"): a minimal proinsulin surrogate that can be chemically converted into human insulin. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 5489-93	16.4	54
59	Determination of the X-ray structure of the snake venom protein omwaprin by total chemical synthesis and racemic protein crystallography. <i>Protein Science</i> , 2010 , 19, 1840-9	6.3	45
58	Synthesis and comparative properties of two amide-generating resin linkers for use in solid phase peptide synthesis. <i>Journal of Peptide Science</i> , 2010 , 16, 545-50	2.1	6
57	Racemic crystallography of synthetic protein enantiomers used to determine the X-ray structure of plectasin by direct methods. <i>Protein Science</i> , 2009 , 18, 1146-54	6.3	68
56	Biomimetic synthesis of lispro insulin via a chemically synthesized "mini-proinsulin" prepared by oxime-forming ligation. <i>Journal of the American Chemical Society</i> , 2009 , 131, 16313-8	16.4	56
55	X-ray structure of native scorpion toxin BmBKTx1 by racemic protein crystallography using direct methods. <i>Journal of the American Chemical Society</i> , 2009 , 131, 1362-3	16.4	42
54	Total chemical synthesis of proteins. <i>Chemical Society Reviews</i> , 2009 , 38, 338-51	58.5	761
53	Role of a salt bridge in the model protein crambin explored by chemical protein synthesis: X-ray structure of a unique protein analogue, [V15A]crambin-alpha-carboxamide. <i>Molecular BioSystems</i> , 2009 , 5, 750-6		12
52	A one-pot approach to neoglycopeptides using orthogonal native chemical ligation and click chemistry. <i>Organic Letters</i> , 2009 , 11, 5270-3	6.2	69
51	X-ray structure of snow flea antifreeze protein determined by racemic crystallization of synthetic protein enantiomers. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9695-701	16.4	186
50	Mirror image forms of snow flea antifreeze protein prepared by total chemical synthesis have identical antifreeze activities. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9702-7	16.4	64
49	Reprint of "Crystal structure of chemically synthesized HIV-1 protease and a ketomethylene isostere inhibitor based on the p2/NC cleavage site" [Bioorg. Med. Chem. Lett. 18 (2008) 4554-4557]. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008 , 18, 6012-5	2.9	3
48	Total synthesis by modern chemical ligation methods and high resolution (1.1 Å) X-ray structure of ribonuclease A. <i>Biopolymers</i> , 2008 , 90, 278-86	2.2	49

47	Comparative properties of insulin-like growth factor 1 (IGF-1) and [Gly7D-Ala]IGF-1 prepared by total chemical synthesis. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 1102-6	16.4	44
46	Crystal structure of chemically synthesized HIV-1 protease and a ketomethylene isostere inhibitor based on the p2/NC cleavage site. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008 , 18, 4554-7	2.9	13
45	Synthesis of photoactive analogues of a cystine knot trypsin inhibitor protein. <i>Organic Letters</i> , 2007 , 9, 5497-500	6.2	9
44	Modular total chemical synthesis of a human immunodeficiency virus type 1 protease. <i>Journal of the American Chemical Society</i> , 2007 , 129, 11480-90	16.4	67
43	Exploratory synthesis of peptide-alpha-thioester segments spanning the polypeptide sequence of the delta-opioid receptor, a G protein-coupled receptor. <i>Biopolymers</i> , 2007 , 88, 340-9	2.2	3
42	Convergent chemical synthesis and crystal structure of a 203 amino acid "covalent dimer" HIV-1 protease enzyme molecule. <i>Angewandte Chemie - International Edition</i> , 2007 , 46, 1667-70	16.4	153
41	Towards the total chemical synthesis of integral membrane proteins: a general method for the synthesis of hydrophobic peptide-thioester building blocks. <i>Tetrahedron Letters</i> , 2007 , 48, 1795-1799	2	87
40	Total chemical synthesis and biophysical characterization of the minimal isoform of the KCHIP2 potassium channel regulatory subunit. <i>Protein Science</i> , 2007 , 16, 2056-64	6.3	10
39	Special Issue Tribute to Bruce Merrifield. <i>International Journal of Peptide Research and Therapeutics</i> , 2007 , 13, 29-29	2.1	
38	In Situ Neutralization in Boc-chemistry Solid Phase Peptide Synthesis. <i>International Journal of Peptide Research and Therapeutics</i> , 2007 , 13, 31-44	2.1	143
37	Convergent chemical synthesis and high-resolution x-ray structure of human lysozyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 4846-51	11.5	148
36	Selective desulfurization of cysteine in the presence of Cys(Acm) in polypeptides obtained by native chemical ligation. <i>Organic Letters</i> , 2007 , 9, 687-90	6.2	185
35	Total chemical synthesis, folding, and assay of a small protein on a water-compatible solid support. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 3283-7	16.4	49
34	Kinetically controlled ligation for the convergent chemical synthesis of proteins. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 3985-8	16.4	251
33	Chemistry of Peptide Synthesis. Von N. Leo Benoiton.. <i>Angewandte Chemie</i> , 2006 , 118, 4340-4340	3.6	
32	Total Chemical Synthesis, Folding, and Assay of a Small Protein on a Water-Compatible Solid Support. <i>Angewandte Chemie</i> , 2006 , 118, 3361-3365	3.6	16
31	Kinetically Controlled Ligation for the Convergent Chemical Synthesis of Proteins. <i>Angewandte Chemie</i> , 2006 , 118, 4089-4092	3.6	84
30	Insights into the mechanism and catalysis of the native chemical ligation reaction. <i>Journal of the American Chemical Society</i> , 2006 , 128, 6640-6	16.4	508

29	Studies on the insolubility of a transmembrane peptide from signal peptide peptidase. <i>Journal of the American Chemical Society</i> , 2006 , 128, 7140-1	16.4	36
28	His6 tag-assisted chemical protein synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 5014-9	11.5	54
27	Synthetic erythropoietic proteins: tuning biological performance by site-specific polymer attachment. <i>Chemistry and Biology</i> , 2005 , 12, 371-83		43
26	Medicinal chemistry applied to a synthetic protein: development of highly potent HIV entry inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 16460-5	11.5	134
25	A one-pot total synthesis of crambin. <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 2534-8	16.4	307
24	A One-Pot Total Synthesis of Crambin. <i>Angewandte Chemie</i> , 2004 , 116, 2588-2592	3.6	98
23	Novel forms of chemical protein diversity -- in nature and in the laboratory. <i>Current Opinion in Biotechnology</i> , 2004 , 15, 607-14	11.4	36
22	Total chemical synthesis of crambin. <i>Journal of the American Chemical Society</i> , 2004 , 126, 1377-83	16.4	89
21	Total chemical synthesis of enzymes. <i>Journal of Peptide Science</i> , 2003 , 9, 574-93	2.1	63
20	Design and chemical synthesis of a homogeneous polymer-modified erythropoiesis protein. <i>Science</i> , 2003 , 299, 884-7	33.3	295
19	Chemical synthesis of lymphotactin: a glycosylated chemokine with a C-terminal mucin-like domain. <i>Chemistry - A European Journal</i> , 2001 , 7, 1129-32	4.8	87
18	Synthesis of native proteins by chemical ligation. <i>Annual Review of Biochemistry</i> , 2000 , 69, 923-60	29.1	982
17	Determining the 3D structure of HIV-1 protease. <i>Science</i> , 2000 , 288, 1590	33.3	4
16	Chemical Protein Synthesis by Solid Phase Ligation of Unprotected Peptide Segments. <i>Journal of the American Chemical Society</i> , 1999 , 121, 8720-8727	16.4	135
15	Probing intermolecular main chain hydrogen bonding in serine proteinase-protein inhibitor complexes: chemical synthesis of backbone-engineered turkey ovomucoid third domain. <i>Biochemistry</i> , 1997 , 36, 673-9	3.2	83
14	Modulation of Reactivity in Native Chemical Ligation through the Use of Thiol Additives. <i>Journal of the American Chemical Society</i> , 1997 , 119, 4325-4329	16.4	239
13	Extending the Applicability of Native Chemical Ligation. <i>Journal of the American Chemical Society</i> , 1996 , 118, 5891-5896	16.4	238
12	Total Chemical Synthesis of a Unique Transcription Factor-Related Protein: cMyc-Max. <i>Journal of the American Chemical Society</i> , 1995 , 117, 2998-3007	16.4	183

11	Total Chemical Synthesis and Catalytic Properties of the Enzyme Enantiomers L- and D-4-Oxalocrotonate Tautomerase. <i>Journal of the American Chemical Society</i> , 1995 , 117, 11075-11080	16.4	62
10	Chemical Ligation of Cysteine-Containing Peptides: Synthesis of a 22 kDa Tethered Dimer of HIV-1 Protease. <i>Journal of the American Chemical Society</i> , 1995 , 117, 1881-1887	16.4	88
9	Structural engineering of the HIV-1 protease molecule with a beta-turn mimic of fixed geometry. <i>Protein Science</i> , 1993 , 2, 1085-91	6.3	43
8	In situ neutralization in Boc chemistry SPPS: High yield assembly of difficult sequences 1992 , 623-624		2
7	Structure at 2.5-A resolution of chemically synthesized human immunodeficiency virus type 1 protease complexed with a hydroxyethylene-based inhibitor. <i>Biochemistry</i> , 1991 , 30, 1600-9	3.2	221
6	Studies on the total chemical synthesis of crystalline [Aba67,95,167,195]HIV-1 proteinase 1991 , 172-173		1
5	Rapid manual Boc- and Fmoc-solid phase peptide synthesis 1991 , 174-175		2
4	Chemical synthesis of peptides and proteins. <i>Annual Review of Biochemistry</i> , 1988 , 57, 957-89	29.1	436
3	Synthesis and characterization of peptides and proteins 1988 , 173-178		4
2	Properties of swollen polymer networks. Solvation and swelling of peptide-containing resins in solid-phase peptide synthesis. <i>Journal of the American Chemical Society</i> , 1980 , 102, 5463-5470	16.4	162
1	A new synthetic route to tert-butyloxycarbonylaminoacyl-4-(oxymethyl)phenylacetamidomethyl-resin, an improved support for solid-phase peptide synthesis. <i>Journal of Organic Chemistry</i> , 1978 , 43, 2845-2852	4.2	320