

Christian F W Becker

List of Publications by Year in descending order

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105
papers

3,106
citations

186254

28
h-index

175241

52
g-index

118
all docs

118
docs citations

118
times ranked

3961
citing authors

#	ARTICLE	IF	CITATIONS
1	Substrates and Regulation Mechanisms for the Human Mitochondrial Sirtuins Sirt3 and Sirt5. <i>Journal of Molecular Biology</i> , 2008, 382, 790-801.	4.2	474
2	Native chemical ligation in protein synthesis and semi-synthesis. <i>Chemical Society Reviews</i> , 2018, 47, 9046-9068.	38.1	232
3	An acetylome peptide microarray reveals specificities and deacetylation substrates for all human sirtuin isoforms. <i>Nature Communications</i> , 2013, 4, 2327.	12.8	179
4	Silaffins in Silica Biomineralization and Biomimetic Silica Precipitation. <i>Marine Drugs</i> , 2015, 13, 5297-5333.	4.6	96
5	Semisynthesis of a Glycosylphosphatidylinositol-Anchored Prion Protein. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8215-8219.	13.8	93
6	HIV-1 Nef membrane association depends on charge, curvature, composition and sequence. <i>Nature Chemical Biology</i> , 2010, 6, 46-53.	8.0	88
7	Green tea extracts interfere with the stress-protective activity of PrP ^C and the formation of PrP ^{Sc} . <i>Journal of Neurochemistry</i> , 2008, 107, 218-229.	3.9	64
8	Protein semi-synthesis: New proteins for functional and structural studies. <i>New Biotechnology</i> , 2005, 22, 153-172.	2.7	63
9	Total Chemical Synthesis of an Integral Membrane Enzyme: Diacylglycerol Kinase from <i>Escherichia coli</i> . <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3988-3992.	13.8	61
10	A sequence-function analysis of the silica precipitating silaffin R5 peptide. <i>Journal of Peptide Science</i> , 2014, 20, 152-158.	1.4	60
11	One-shot NMR analysis of microbial secretions identifies highly potent proteasome inhibitor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18367-18371.	7.1	58
12	Total chemical synthesis of a functional interacting protein pair: The protooncogene H-Ras and the Ras-binding domain of its effector c-Raf1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 5075-5080.	7.1	57
13	Semisynthetic Murine Prion Protein Equipped with a GPI Anchor Mimic Incorporates into Cellular Membranes. <i>Chemistry and Biology</i> , 2007, 14, 994-1006.	6.0	56
14	A PEGylated Photocleavable Auxiliary Mediates the Sequential Enzymatic Glycosylation and Native Chemical Ligation of Peptides. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 7711-7715.	13.8	55
15	O-GlcNAc modification of small heat shock proteins enhances their anti-amyloid chaperone activity. <i>Nature Chemistry</i> , 2021, 13, 441-450.	13.6	54
16	Generation of Live-Cell Microarrays by Means of DNA-Directed Immobilization of Specific Cell-Surface Ligands. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 4180-4183.	13.8	53
17	Labeling and Natural Post-Translational Modification of Peptides and Proteins via Chemoselective Pd-Catalyzed Prenylation of Cysteine. <i>Journal of the American Chemical Society</i> , 2019, 141, 14931-14937.	13.7	48
18	Chemical synthesis and semisynthesis of membrane proteins. <i>Molecular BioSystems</i> , 2008, 4, 733.	2.9	47

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19	Chemical Synthesis and Single Channel Properties of Tetrameric and Pentameric TASP _s (Template-assembled Synthetic Proteins) Derived from the Transmembrane Domain of HIV Virus Protein u (Vpu). <i>Journal of Biological Chemistry</i> , 2004, 279, 17483-17489.	3.4	46
20	Direct Readout of Protein-Protein Interactions by Mass Spectrometry from Protein-DNA Microarrays. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7635-7639.	13.8	43
21	Surface immobilization of biomolecules by click sulfonamide reaction. <i>Chemical Communications</i> , 2008, , 3723.	4.1	42
22	Modified silaffin R5 peptides enable encapsulation and release of cargo molecules from biomimetic silica particles. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 3533-3541.	3.0	42
23	Conformational Selection in Substrate Recognition by Hsp70 Chaperones. <i>Journal of Molecular Biology</i> , 2013, 425, 466-474.	4.2	38
24	Single Posttranslational Modifications in the Central Repeat Domains of Tau4 Impact its Aggregation and Tubulin Binding. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1616-1620.	13.8	38
25	Incorporation of spin-labelled amino acids into proteins. <i>Magnetic Resonance in Chemistry</i> , 2005, 43, S34-S39.	1.9	37
26	Site-Specific Attachment of Polyethylene Glycol-like Oligomers to Proteins and Peptides. <i>Bioconjugate Chemistry</i> , 2006, 17, 1492-1498.	3.6	35
27	Exploring the effect of native and artificial peptide modifications on silaffin induced silica precipitation. <i>Chemical Science</i> , 2012, 3, 3500.	7.4	31
28	Recent Advances in Peptide-Based Approaches for Cancer Treatment. <i>Current Medicinal Chemistry</i> , 2020, 27, 1174-1205.	2.4	30
29	MALDI TOF/TOF-Based Approach for the Identification of <sc>d</sc>- Amino Acids in Biologically Active Peptides and Proteins. <i>Journal of Proteome Research</i> , 2016, 15, 1487-1496.	3.7	29
30	Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins. <i>Biological Chemistry</i> , 2005, 386, 1105-14.	2.5	27
31	A C-terminal Membrane Anchor Affects the Interactions of Prion Proteins with Lipid Membranes. <i>Journal of Biological Chemistry</i> , 2014, 289, 30144-30160.	3.4	27
32	Immobilising proteins on silica with site-specifically attached modified silaffin peptides. <i>Biomaterials Science</i> , 2015, 3, 288-297.	5.4	26
33	Atomic-Level Quality Assessment of Enzymes Encapsulated in Bioinspired Silica. <i>Chemistry - A European Journal</i> , 2016, 22, 425-432.	3.3	25
34	On-Resin Assembly of a Linkerless Lanthanide(III)-Based Luminescence Label and Its Application to the Total Synthesis of Site-Specifically Labeled Mechanosensitive Channels. <i>Bioconjugate Chemistry</i> , 2004, 15, 1118-1124.	3.6	24
35	Functional Immobilization of the Small GTPase Rab6A on DNA-Gold Nanoparticles by Using a Site-Specifically Attached Poly(ethylene glycol) Linker and Thiol Place-Exchange Reaction. <i>ChemBioChem</i> , 2007, 8, 32-36.	2.6	24
36	Random coil shifts of posttranslationally modified amino acids. <i>Journal of Biomolecular NMR</i> , 2019, 73, 587-599.	2.8	24

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37	A quantitative and site-specific chemoenzymatic glycosylation approach for PEGylated MUC1 peptides. <i>Chemical Science</i> , 2014, 5, 1634.	7.4	23
38	C-Terminal Fluorescence Labeling of Proteins for Interaction Studies on the Single-Molecule Level. <i>ChemBioChem</i> , 2006, 7, 891-895.	2.6	22
39	A sensitive fluorescence monitor for the detection of activated Ras: total chemical synthesis of site-specifically labeled Ras binding domain of c-Raf1 immobilized on a surface. <i>Chemistry and Biology</i> , 2001, 8, 243-252.	6.0	21
40	Chemical synthesis and characterization of elastin-like polypeptides (ELPs) with variable guest residues. <i>Journal of Peptide Science</i> , 2016, 22, 334-342.	1.4	21
41	Arginine side-chain modification that occurs during copper-catalysed azide-alkyne click reactions resembles an advanced glycation end product. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 6205-6211.	2.8	21
42	Biomimetic and biopolymer-based enzyme encapsulation. <i>Enzyme and Microbial Technology</i> , 2021, 150, 109864.	3.2	21
43	Assembly of a transmembrane b-Type cytochrome is mainly driven by transmembrane helix interactions. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 1815-1822.	2.6	20
44	Protein immobilization on liposomes and lipid-coated nanoparticles by protein trans-splicing. <i>Journal of Peptide Science</i> , 2010, 16, 582-588.	1.4	20
45	Expressed Protein Selenoester Ligation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	20
46	Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Site-Specifically Modified with Argpyrimidine. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11397-11402.	13.8	19
47	A peptide extension dictates IgM assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8575-E8584.	7.1	19
48	Semisynthetic prion protein (PrP) variants carrying glycan mimics at position 181 and 197 do not form fibrils. <i>Chemical Science</i> , 2017, 8, 6626-6632.	7.4	19
49	Chemical Synthesis and Semisynthesis of Lipidated Proteins. <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202111266.	13.8	19
50	Multifunctional γ - γ -Integrin-Specific Peptide-Pt(IV) Conjugates for Cancer Cell Targeting. <i>Bioconjugate Chemistry</i> , 2017, 28, 2429-2439.	3.6	18
51	SDS-Facilitated In vitro Formation of a Transmembrane B-Type Cytochrome Is Mediated by Changes in Local pH. <i>Journal of Molecular Biology</i> , 2011, 407, 594-606.	4.2	17
52	Utility of the Phenacyl Protecting Group in Traceless Protein Semisynthesis through Ligation-Desulfurization Chemistry. <i>ChemistryOpen</i> , 2018, 7, 106-110.	1.9	16
53	Conversion of a Mechanosensitive Channel Protein from a Membrane-embedded to a Water-soluble Form by Covalent Modification with Amphiphiles. <i>Journal of Molecular Biology</i> , 2004, 343, 747-758.	4.2	15
54	Continuous Flow Reactors from Microfluidic Compartmentalization of Enzymes within Inorganic Microparticles. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 32951-32960.	8.0	15

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55	Chapter 9 Semisynthesis of Membrane-Attached Prion Proteins. <i>Methods in Enzymology</i> , 2009, 462, 177-193.	1.0	13
56	Efficient generation of peptide hydrazides via direct hydrazinolysis of Peptidyl-Wang-TentaGel resins. <i>Journal of Peptide Science</i> , 2015, 21, 201-207.	1.4	13
57	A dual functional peptide-auxiliary conjugate for C-to-N and N-to-C sequential native chemical ligation of glycopeptides. <i>Bioorganic and Medicinal Chemistry</i> , 2017, 25, 5016-5021.	3.0	13
58	Synthesis of a GPI anchor module suitable for protein post-translational modification. <i>Biopolymers</i> , 2010, 94, 457-464.	2.4	12
59	Protein-DNA Arrays as Tools for Detection of Protein-Protein Interactions by Mass Spectrometry. <i>ChemBioChem</i> , 2013, 14, 92-99.	2.6	11
60	Single Posttranslational Modifications in the Central Repeat Domains of Tau4 Impact its Aggregation and Tubulin Binding. <i>Angewandte Chemie</i> , 2019, 131, 1630-1634.	2.0	11
61	Alum triggers infiltration of human neutrophils ex vivo and causes lysosomal destabilization and mitochondrial membrane potential-dependent NET formation. <i>FASEB Journal</i> , 2020, 34, 14024-14041.	0.5	11
62	Multi-scale microporous silica microcapsules from gas-in water-in oil emulsions. <i>Soft Matter</i> , 2020, 16, 3082-3087.	2.7	11
63	Chemical Synthesis Approaches to the Engineering of Ion Channels. <i>Protein and Peptide Letters</i> , 2005, 12, 737-741.	0.9	10
64	Photocontrol of STAT6 dimerization and translocation. <i>Molecular BioSystems</i> , 2010, 6, 2423.	2.9	10
65	Studying Weak and Dynamic Interactions of Posttranslationally Modified Proteins using Expressed Protein Ligation. <i>ACS Chemical Biology</i> , 2014, 9, 347-352.	3.4	10
66	Synthetic integrin-binding immune stimulators target cancer cells and prevent tumor formation. <i>Scientific Reports</i> , 2017, 7, 17592.	3.3	9
67	Ovalbumin Epitope SIINFELK Self-Assembles into a Supramolecular Hydrogel. <i>Scientific Reports</i> , 2019, 9, 2696.	3.3	9
68	Segmental and site-specific isotope labelling strategies for structural analysis of posttranslationally modified proteins. <i>RSC Chemical Biology</i> , 2021, 2, 1441-1461.	4.1	9
69	Synthesis of 2-Iodo- and 2-Bromo-ATP and GTP Analogues as Potential Phasing Tools for X-ray Crystallography. <i>Nucleosides & Nucleotides</i> , 1999, 18, 137-151.	0.5	8
70	N-terminal residues of silaffin peptides impact morphology of biomimetic silica particles. <i>Materials Letters</i> , 2018, 212, 114-117.	2.6	8
71	Silica particles with a quercetin-R5 peptide conjugate are taken up into HT-29 cells and translocate into the nucleus. <i>Chemical Communications</i> , 2019, 55, 9649-9652.	4.1	8
72	Design, synthesis, and conformational studies of [DOTA]-Octreotide analogs containing [1,2,3]triazolyl as a disulfide mimetic. <i>Peptide Science</i> , 2018, 110, e24071.	1.8	7

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73	Prion proteinâ€”Semisynthetic prion protein (PrP) variants with posttranslational modifications. <i>Journal of Peptide Science</i> , 2019, 25, e3216.	1.4	7
74	Site-specific modification and segmental isotope labelling of HMGN1 reveals long-range conformational perturbations caused by posttranslational modifications. <i>RSC Chemical Biology</i> , 2021, 2, 537-550.	4.1	7
75	Semisynthesis of H-Ras with a glutamic acid methylester at position 61. <i>Biopolymers</i> , 2008, 90, 399-405.	2.4	6
76	Recombinant expression of soluble murine prion protein for Câ€”terminal modification. <i>FEBS Letters</i> , 2013, 587, 430-435.	2.8	6
77	Silaffinâ€”inspired Peptide Assemblies Template Silica Particles with Variable Morphologies. <i>ChemNanoMat</i> , 2018, 4, 1209-1213.	2.8	6
78	Rapid Production of Functionalized Recombinant Proteins:â€”Marrying Ligation Independent Cloning and in Vitro Protein Ligation. <i>Bioconjugate Chemistry</i> , 2006, 17, 610-617.	3.6	5
79	Molecular dynamics simulations and conductance studies of the interaction of VP1 N-terminus from Polio virus and gp41 fusion peptide from HIV-1 with lipid membranes. <i>Molecular Membrane Biology</i> , 2012, 29, 9-25.	2.0	5
80	Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Siteâ€”Specifically Modified with Argpyrimidine. <i>Angewandte Chemie</i> , 2016, 128, 11569-11574.	2.0	5
81	A comparative study of synthetic and semisynthetic approaches for ligating the epidermal growth factor to a bivalent scaffold. <i>Journal of Peptide Science</i> , 2017, 23, 871-879.	1.4	5
82	Synthetic Cancerâ€”Targeting Innate Immune Stimulators Give Insights into Avidity Effects. <i>ChemBioChem</i> , 2018, 19, 459-469.	2.6	5
83	Synthetic Approach to Argpyrimidine as a Tool for Investigating Nonenzymatic Posttranslational Modification of Proteins. <i>Synlett</i> , 2017, 28, 1950-1955.	1.8	4
84	Cytoskeleton-dependent clustering of membrane-bound prion protein on the cell surface. <i>Journal of Biological Chemistry</i> , 2021, 296, 100359.	3.4	4
85	Probing Ras Effector Interactions on Nanoparticle Supported Lipid Bilayers. <i>Bioconjugate Chemistry</i> , 2008, 19, 1938-1944.	3.6	3
86	Multifunctional Scaffolds for Assembling Cancer-Targeting Immune Stimulators Using Chemoselective Ligations. <i>Frontiers in Chemistry</i> , 2019, 7, 113.	3.6	3
87	Biomimetic Silica Encapsulation of Lipid Nanodiscs and β -Sheet-Stabilized Diacylglycerol Kinase. <i>Bioconjugate Chemistry</i> , 2021, 32, 1742-1752.	3.6	3
88	Highly Precise Protein Semisynthesis through Ligationâ€”Desulfurization Chemistry in Combination with Phenacyl Protection of Native Cysteines. <i>Methods in Molecular Biology</i> , 2020, 2133, 343-358.	0.9	3
89	Expressed Protein Selenoester Ligation. <i>Angewandte Chemie</i> , 0, , .	2.0	3
90	Semisynthesis of human thymidine monophosphate kinase. <i>Biopolymers</i> , 2010, 94, 433-440.	2.4	2

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91	Chemical protein synthesis. <i>Journal of Peptide Science</i> , 2014, 20, 63-63.	1.4	2
92	Semisynthesis of Membrane-Attached Proteins Using Split Inteins. <i>Methods in Molecular Biology</i> , 2017, 1495, 93-109.	0.9	2
93	Just a spoonful of sugar: Short glycans affect protein properties and functions. <i>Journal of Peptide Science</i> , 2019, 25, e3167.	1.4	2
94	Mannosylated hemagglutinin peptides bind cyanovirin-N independent of disulfide-bonds in complementary binding sites. <i>RSC Advances</i> , 2020, 10, 11079-11087.	3.6	2
95	Chemical Synthesis and Semisynthesis of Lipidated Proteins. <i>Angewandte Chemie</i> , 0, , .	2.0	2
96	Chemical Synthesis of an Integral Membrane Enzyme – The Challenges of Diacylglycerol Kinase. <i>Israel Journal of Chemistry</i> , 2011, 51, 930-939.	2.3	1
97	Finding the best ligase. <i>Nature Chemical Biology</i> , 2018, 14, 2-3.	8.0	1
98	Tumor-Targeting Immune System Engagers (ISERs) Activate Human Neutrophils after Binding to Cancer Cells. <i>Biochemistry</i> , 2019, 58, 2642-2652.	2.5	1
99	Genome Mining-Based Discovery of Blenny Fish-Derived Peptides Targeting the Mouse μ -Opioid Receptor. <i>Frontiers in Pharmacology</i> , 2021, 12, 773029.	3.5	1
100	Protein Arrays as Tools for Detection of Protein-Protein Interactions by Mass Spectrometry. , 2006, , 725-727.		0
101	Size Matters: Side Chain Length Affects SH2 Substrate Binding. <i>Chemistry and Biology</i> , 2010, 17, 211-212.	6.0	0
102	Ambiguous Origin: Two Sides of an Ephrin Receptor Tyrosine Kinase. <i>Chemistry and Biology</i> , 2011, 18, 279-281.	6.0	0
103	Titelbild: Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Site-Specifically Modified with Argpyrimidine (<i>Angew. Chem.</i> 38/2016). <i>Angewandte Chemie</i> , 2016, 128, 11473-11473.	2.0	0
104	Peptide & protein ligation. <i>Bioorganic and Medicinal Chemistry</i> , 2017, 25, 4925.	3.0	0
105	Protein Chemistry Looking Ahead: 8th Chemical Protein Synthesis Meeting 16-19 June 2019, Berlin, Germany. <i>Cell Chemical Biology</i> , 2019, 26, 1349-1354.	5.2	0