Christian F W Becker

List of Publications by Citations

107 papers	2,480 citations	25 h-index	47 g-index
118 ext. papers	2,800 ext. citations	6.5 avg, IF	5.2 L-index

#	Paper	IF	Citations
107	Substrates and regulation mechanisms for the human mitochondrial sirtuins Sirt3 and Sirt5. *Journal of Molecular Biology*, **2008**, 382, 790-801	6.5	424
106	Native chemical ligation in protein synthesis and semi-synthesis. *Chemical Society Reviews*, **2018**, 47, 9046-9068	58.9	158
105	An acetylome peptide microarray reveals specificities and deacetylation substrates for all human sirtuin isoforms. *Nature Communications*, **2013**, 4, 2327	17.4	145
104	Semisynthesis of a glycosylphosphatidylinositol-anchored prion protein. *Angewandte Chemie - International Edition*, **2008**, 47, 8215-9	16.4	84
103	HIV-1 Nef membrane association depends on charge, curvature, composition and sequence. *Nature Chemical Biology*, **2010**, 6, 46-53	11.7	77
102	Silaffins in Silica Biomineralization and Biomimetic Silica Precipitation. *Marine Drugs*, **2015**, 13, 5297-333	6	75
101	Total chemical synthesis of an integral membrane enzyme: diacylglycerol kinase from Escherichia coli. *Angewandte Chemie - International Edition*, **2011**, 50, 3988-92	16.4	58
100	Green tea extracts interfere with the stress-protective activity of PrP and the formation of PrP. *Journal of Neurochemistry*, **2008**, 107, 218-29	6	58
99	Protein semi-synthesis: new proteins for functional and structural studies. *New Biotechnology*, **2005**, 22, 153-72		58
98	Total chemical synthesis of a functional interacting protein pair: the protooncogene H-Ras and the Ras-binding domain of its effector c-Raf1. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 5075-80	11.5	57
97	Generation of live-cell microarrays by means of DNA-Directed immobilization of specific cell-surface ligands. *Angewandte Chemie - International Edition*, **2007**, 46, 4180-3	16.4	51
96	Semisynthetic murine prion protein equipped with a GPI anchor mimic incorporates into cellular membranes. *Chemistry and Biology*, **2007**, 14, 994-1006		51
95	A sequence-function analysis of the silica precipitating silaffin R5 peptide. *Journal of Peptide Science*, **2014**, 20, 152-8	2.1	49
94	One-shot NMR analysis of microbial secretions identifies highly potent proteasome inhibitor. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 18367-71	11.5	46
93	Chemical synthesis and semisynthesis of membrane proteins. *Molecular BioSystems*, **2008**, 4, 733-40		45
92	Chemical synthesis and single channel properties of tetrameric and pentameric TASPs (template-assembled synthetic proteins) derived from the transmembrane domain of HIV virus protein u (Vpu). *Journal of Biological Chemistry*, **2004**, 279, 17483-9	5.4	44
91	Direct readout of protein-protein interactions by mass spectrometry from protein-DNA microarrays. *Angewandte Chemie - International Edition*, **2005**, 44, 7635-9	16.4	43

90	A PEGylated photocleavable auxiliary mediates the sequential enzymatic glycosylation and native chemical ligation of peptides. *Angewandte Chemie - International Edition*, **2015**, 54, 7711-5	16.4	42
89	Surface immobilization of biomolecules by click sulfonamide reaction. *Chemical Communications*, **2008**, 3723-5	5.8	39
88	Site-specific attachment of polyethylene glycol-like oligomers to proteins and peptides. *Bioconjugate Chemistry*, **2006**, 17, 1492-8	6.3	35
87	Modified silaffin R5 peptides enable encapsulation and release of cargo molecules from biomimetic silica particles. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 3533-41	3.4	34
86	Conformational selection in substrate recognition by Hsp70 chaperones. *Journal of Molecular Biology*, **2013**, 425, 466-74	6.5	32
85	Incorporation of spin-labelled amino acids into proteins. *Magnetic Resonance in Chemistry*, **2005**, 43 Spec no., S34-9	2.1	31
84	Exploring the effect of native and artificial peptide modifications on silaffin induced silica precipitation. *Chemical Science*, **2012**, 3, 3500	9.4	27
83	Single Posttranslational Modifications in the Central Repeat Domains of Tau4 Impact its Aggregation and Tubulin Binding. *Angewandte Chemie - International Edition*, **2019**, 58, 1616-1620	16.4	26
82	Labeling and Natural Post-Translational Modification of Peptides and Proteins via Chemoselective Pd-Catalyzed Prenylation of Cysteine. *Journal of the American Chemical Society*, **2019**, 141, 14931-14937	16.4	25
81	Monitoring the real-time kinetics of the hydrolysis reaction of guanine nucleotide-binding proteins. *Biological Chemistry*, **2005**, 386, 1105-14	4.5	25
80	On-resin assembly of a linkerless lanthanide(III)-based luminescence label and its application to the total synthesis of site-specifically labeled mechanosensitive channels. *Bioconjugate Chemistry*, **2004**, 15, 1118-24	6.3	24
79	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. *ChemBioChem*, **2007**, 8, 32-6	3.8	23
78	MALDI TOF/TOF-Based Approach for the Identification of d- Amino Acids in Biologically Active Peptides and Proteins. *Journal of Proteome Research*, **2016**, 15, 1487-96	5.6	22
77	Immobilising proteins on silica with site-specifically attached modified silaffin peptides. *Biomaterials Science*, **2015**, 3, 288-97	7.4	21
76	C-terminal fluorescence labeling of proteins for interaction studies on the single-molecule level. *ChemBioChem*, **2006**, 7, 891-5	3.8	21
75	A C-terminal membrane anchor affects the interactions of prion proteins with lipid membranes. *Journal of Biological Chemistry*, **2014**, 289, 30144-60	5.4	20
74	Protein immobilization on liposomes and lipid-coated nanoparticles by protein trans-splicing. *Journal of Peptide Science*, **2010**, 16, 582-8	2.1	20
73	Atomic-Level Quality Assessment of Enzymes Encapsulated in Bioinspired Silica. *Chemistry - A European Journal*, **2016**, 22, 425-32	4.8	20

72	Assembly of a transmembrane b-type cytochrome is mainly driven by transmembrane helix interactions. *Biochimica Et Biophysica Acta - Biomembranes*, **2006**, 1758, 1815-22	3.8	19
71	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. *Chemistry and Biology*, **2001**, 8, 243-52		19
70	O-GlcNAc modification of small heat shock proteins enhances their anti-amyloid chaperone activity. *Nature Chemistry*, **2021**, 13, 441-450	17.6	18
69	Arginine side-chain modification that occurs during copper-catalysed azide-alkyne click reactions resembles an advanced glycation end product. *Organic and Biomolecular Chemistry*, **2016**, 14, 6205-11	3.9	17
68	A quantitative and site-specific chemoenzymatic glycosylation approach for PEGylated MUC1 peptides. *Chemical Science*, **2014**, 5, 1634	9.4	17
67	Semisynthetic prion protein (PrP) variants carrying glycan mimics at position 181 and 197 do not form fibrils. *Chemical Science*, **2017**, 8, 6626-6632	9.4	17
66	SDS-facilitated in vitro formation of a transmembrane B-type cytochrome is mediated by changes in local pH. *Journal of Molecular Biology*, **2011**, 407, 594-606	6.5	16
65	Ein PEGyliertes, lichtspaltbares Auxiliar f□ die sequenzielle enzymatische Glykosylierung und native chemische Ligation von Peptiden. *Angewandte Chemie*, **2015**, 127, 7823-7828	3.6	14
64	Total Chemical Synthesis of an Integral Membrane Enzyme: Diacylglycerol Kinase from Escherichia coli. *Angewandte Chemie*, **2011**, 123, 4074-4078	3.6	14
63	Direkter Nachweis von Protein-Protein-Wechselwirkungen durch Massenspektrometrie an Protein-DNA-Mikroarrays. *Angewandte Chemie*, **2005**, 117, 7808-7812	3.6	14
62	Random coil shifts of posttranslationally modified amino acids. *Journal of Biomolecular NMR*, **2019**, 73, 587-599	3	13
61	Conversion of a mechanosensitive channel protein from a membrane-embedded to a water-soluble form by covalent modification with amphiphiles. *Journal of Molecular Biology*, **2004**, 343, 747-58	6.5	13
60	Chemical synthesis and characterization of elastin-like polypeptides (ELPs) with variable guest residues. *Journal of Peptide Science*, **2016**, 22, 334-42	2.1	13
59	Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Site-Specifically Modified with Argpyrimidine. *Angewandte Chemie - International Edition*, **2016**, 55, 11397-402	16.4	13
58	A peptide extension dictates IgM assembly. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E8575-E8584	11.5	12
57	Semisynthesis of membrane-attached prion proteins. *Methods in Enzymology*, **2009**, 462, 177-93	1.7	12
56	Protein-DNA arrays as tools for detection of protein-protein interactions by mass spectrometry. *ChemBioChem*, **2013**, 14, 92-9	3.8	11
55	Efficient generation of peptide hydrazides via direct hydrazinolysis of Peptidyl-Wang-TentaGel resins. *Journal of Peptide Science*, **2015**, 21, 201-7	2.1	11

54	Synthesis of a GPI anchor module suitable for protein post-translational modification. *Biopolymers*, **2010**, 94, 457-64	2.2	11
53	Recent Advances in Peptide-Based Approaches for Cancer Treatment. *Current Medicinal Chemistry*, **2020**, 27, 1174-1205	4.3	10
52	Utility of the Phenacyl Protecting Group in Traceless Protein Semisynthesis through Ligation-Desulfurization Chemistry. *ChemistryOpen*, **2018**, 7, 106-110	2.3	10
51	Studying weak and dynamic interactions of posttranslationally modified proteins using expressed protein ligation. *ACS Chemical Biology*, **2014**, 9, 347-52	4.9	10
50	Single Posttranslational Modifications in the Central Repeat Domains of Tau4 Impact its Aggregation and Tubulin Binding. *Angewandte Chemie*, **2019**, 131, 1630-1634	3.6	10
49	Continuous Flow Reactors from Microfluidic Compartmentalization of Enzymes within Inorganic Microparticles. *ACS Applied Materials & Interfaces*, **2020**, 12, 32951-32960	9.5	9
48	Multifunctional Integrin-Specific Peptide-Pt(IV) Conjugates for Cancer Cell Targeting. *Bioconjugate Chemistry*, **2017**, 28, 2429-2439	6.3	9
47	Photocontrol of STAT6 dimerization and translocation. *Molecular BioSystems*, **2010**, 6, 2423-9		9
46	Chemical synthesis approaches to the engineering of ion channels. *Protein and Peptide Letters*, **2005**, 12, 737-41	1.9	9
45	Synthesis of 2?-Iodo- and 2?-Bromo-ATP and GTP Analogues as Potential Phasing Tools for X-ray Crystallography. *Nucleosides & Nucleotides*, **1999**, 18, 137-151		8
44	A dual functional peptide-auxiliary conjugate for C-to-N and N-to-C sequential native chemical ligation of glycopeptides. *Bioorganic and Medicinal Chemistry*, **2017**, 25, 5016-5021	3.4	7
43	Multi-scale microporous silica microcapsules from gas-in water-in oil emulsions. *Soft Matter*, **2020**, 16, 3082-3087	3.6	7
42	N-terminal residues of silaffin peptides impact morphology of biomimetic silica particles. *Materials Letters*, **2018**, 212, 114-117	3.3	7
41	Semisynthesis of H-Ras with a glutamic acid methylester at position 61. *Biopolymers*, **2008**, 90, 399-405	2.2	6
40	Prion protein-Semisynthetic prion protein (PrP) variants with posttranslational modifications. *Journal of Peptide Science*, **2019**, 25, e3216	2.1	5
39	Synthetic integrin-binding immune stimulators target cancer cells and prevent tumor formation. *Scientific Reports*, **2017**, 7, 17592	4.9	5
38	Site-specific modification and segmental isotope labelling of HMGN1 reveals long-range conformational perturbations caused by posttranslational modifications. *RSC Chemical Biology*, **2021**, 2, 537-550	3	5
37	Biomimetic and biopolymer-based enzyme encapsulation. *Enzyme and Microbial Technology*, **2021**, 150, 109864	3.8	5

36	Design, synthesis, and conformational studies of [DOTA]-Octreotide analogs containing [1,2,3]triazolyl as a disulfide mimetic. *Peptide Science*, **2018**, 110, e24071	3	4
35	Recombinant expression of soluble murine prion protein for C-terminal modification. *FEBS Letters*, **2013**, 587, 430-5	3.8	4
34	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. *Molecular Membrane Biology*, **2012**, 29, 9-25	3.4	4
33	Rapid production of functionalized recombinant proteins: marrying ligation independent cloning and in vitro protein ligation. *Bioconjugate Chemistry*, **2006**, 17, 610-7	6.3	4
32	Alum triggers infiltration of human neutrophils ex vivo and causes lysosomal destabilization and mitochondrial membrane potential-dependent NET-formation. *FASEB Journal*, **2020**, 34, 14024-14041	0.9	4
31	Silaffin-Inspired Peptide Assemblies Template Silica Particles with Variable Morphologies. *ChemNanoMat*, **2018**, 4, 1209-1213	3.5	4
30	Multifunctional Scaffolds for Assembling Cancer-Targeting Immune Stimulators Using Chemoselective Ligations. *Frontiers in Chemistry*, **2019**, 7, 113	5	3
29	Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Site-Specifically Modified with Argpyrimidine. *Angewandte Chemie*, **2016**, 128, 11569-11574	3.6	3
28	Silica particles with a quercetin-R5 peptide conjugate are taken up into HT-29 cells and translocate into the nucleus. *Chemical Communications*, **2019**, 55, 9649-9652	5.8	3
27	A comparative study of synthetic and semisynthetic approaches for ligating the epidermal growth factor to a bivalent scaffold. *Journal of Peptide Science*, **2017**, 23, 871-879	2.1	3
26	Probing ras effector interactions on nanoparticle supported lipid bilayers. *Bioconjugate Chemistry*, **2008**, 19, 1938-44	6.3	3
25	Segmental and site-specific isotope labelling strategies for structural analysis of posttranslationally modified proteins. *RSC Chemical Biology*, **2021**, 2, 1441-1461	3	3
24	Synthetic Cancer-Targeting Innate Immune Stimulators Give Insights into Avidity Effects. *ChemBioChem*, **2018**, 19, 459-469	3.8	2
23	Semisynthesis of Membrane-Attached Proteins Using Split Inteins. *Methods in Molecular Biology*, **2017**, 1495, 93-109	1.4	2
22	Semisynthesis of human thymidine monophosphate kinase. *Biopolymers*, **2010**, 94, 433-40	2.2	2
21	Highly Precise Protein Semisynthesis through Ligation-Desulfurization Chemistry in Combination with Phenacyl Protection of Native Cysteines. *Methods in Molecular Biology*, **2020**, 2133, 343-358	1.4	2
20	Chemical Synthesis and Semisynthesis of Lipidated Proteins. *Angewandte Chemie - International Edition*, **2021**, e202111266	16.4	2
19	O-GlcNAcylation of small heat shock proteins enhances their anti-amyloid chaperone activity		2

18	Synthetic Approach to Argpyrimidine as a Tool for Investigating Nonenzymatic Posttranslational Modification of Proteins. *Synlett*, **2017**, 28, 1950-1955	2.2	1
17	Mannosylated hemagglutinin peptides bind cyanovirin-N independent of disulfide-bonds in complementary binding sites.. *RSC Advances*, **2020**, 10, 11079-11087	3.7	1
16	Chemical Synthesis of an Integral Membrane Enzyme The Challenges of Diacylglycerol Kinase. *Israel Journal of Chemistry*, **2011**, 51, 930-939	3.4	1
15	Ovalbumin Epitope SIINFEKL Self-Assembles into a Supramolecular Hydrogel. *Scientific Reports*, **2019**, 9, 2696	4.9	1
14	Cytoskeleton-dependent clustering of membrane-bound prion protein on the cell surface. *Journal of Biological Chemistry*, **2021**, 296, 100359	5.4	1
13	Chemical Synthesis of Membrane Proteins **2021**, 437-462		1
12	Protein engineering: Finding the best ligase. *Nature Chemical Biology*, **2017**, 14, 2-3	11.7	1
11	Tumor-Targeting Immune System Engagers (ISErs) Activate Human Neutrophils after Binding to Cancer Cells. *Biochemistry*, **2019**, 58, 2642-2652	3.2	0
10	Genome Mining-Based Discovery of Blenny Fish-Derived Peptides Targeting the Mouse Opioid Receptor. *Frontiers in Pharmacology*, **2021**, 12, 773029	5.6	0
9	Biomimetic Silica Encapsulation of Lipid Nanodiscs and Sheet-Stabilized Diacylglycerol Kinase. *Bioconjugate Chemistry*, **2021**, 32, 1742-1752	6.3	0
8	Chemoselective Attachment of Lipids to Proteins **2017**, 391-415		
7	Just a spoonful of sugar: Short glycans affect protein properties and functions. *Journal of Peptide Science*, **2019**, 25, e3167	2.1	
6	Protein Chemistry Looking Ahead: 8 Chemical Protein Synthesis Meeting 16-19 June 2019, Berlin, Germany. *Cell Chemical Biology*, **2019**, 26, 1349-1354	8.2	
5	Peptide & protein ligation. *Bioorganic and Medicinal Chemistry*, **2017**, 25, 4925	3.4	
4	Ambiguous origin: two sides of an ephrin receptor tyrosine kinase. *Chemistry and Biology*, **2011**, 18, 279-81		
3	Size matters: side chain length affects SH2 substrate binding. *Chemistry and Biology*, **2010**, 17, 211-2		
2	Protein Arrays as Tools for Detection of Protein-Protein Interactions by Mass Spectrometry **2006**, 725-727		
1	Titelbild: Impaired Chaperone Activity of Human Heat Shock Protein Hsp27 Site-Specifically Modified with Argpyrimidine (Angew. Chem. 38/2016). *Angewandte Chemie*, **2016**, 128, 11473-11473	3.6	