

Nediljko Budisa

List of Publications by Year in descending order

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189
papers

6,989
citations

53794

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85541

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224
all docs

224
docs citations

224
times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	High-level Biosynthetic Substitution of Methionine in Proteins by its Analogs 2-Aminohexanoic Acid, Selenomethionine, Telluromethionine and Ethionine in Escherichia coli. FEBS Journal, 1995, 230, 788-796.	0.2	282
2	Prolegomena to Future Experimental Efforts on Genetic Code Engineering by Expanding Its Amino Acid Repertoire. Angewandte Chemie - International Edition, 2004, 43, 6426-6463.	13.8	243
3	Covalent Attachment of Cyclic TAT Peptides to GFP Results in Protein Delivery into Live Cells with Immediate Bioavailability. Angewandte Chemie - International Edition, 2015, 54, 1950-1953.	13.8	230
4	Expansion of the Genetic Code Enables Design of a Novel "Gold" Class of Green Fluorescent Proteins. Journal of Molecular Biology, 2003, 328, 1071-1081.	4.2	205
5	Fluoroprolines as Tools for Protein Design and Engineering. Angewandte Chemie - International Edition, 2001, 40, 923-925.	13.8	185
6	Phage P22 tailspike protein: crystal structure of the head-binding domain at 2.3 Å., fully refined structure of the endorhamnosidase at 1.56 Å. resolution, and the molecular basis of O-antigen recognition and cleavage. Journal of Molecular Biology, 1997, 267, 865-880.	4.2	167
7	Biocatalysis with Unnatural Amino Acids: Enzymology Meets Xenobiology. Angewandte Chemie - International Edition, 2017, 56, 9680-9703.	13.8	164
8	Deciphering the Fluorine Code" The Many Hats Fluorine Wears in a Protein Environment. Accounts of Chemical Research, 2017, 50, 2093-2103.	15.6	125
9	High-level Biosynthetic Substitution of Methionine in Proteins by its Analogs 2-Aminohexanoic Acid, Selenomethionine, Telluromethionine and Ethionine in Escherichia coli. FEBS Journal, 1995, 230, 788-796.	0.2	102
10	Recent advances in genetic code engineering in Escherichia coli. Current Opinion in Biotechnology, 2012, 23, 751-757.	6.6	101
11	Design of anti- and pro-aggregation variants to assess the effects of methionine oxidation in human prion protein. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7756-7761.	7.1	98
12	Synthetic Biology of Proteins: Tuning GFPs Folding and Stability with Fluoroproline. PLoS ONE, 2008, 3, e1680.	2.5	96
13	Phage capsid nanoparticles with defined ligand arrangement block influenza virus entry. Nature Nanotechnology, 2020, 15, 373-379.	31.5	96
14	Residue-specific bioincorporation of non-natural, biologically active amino acids into proteins as possible drug carriers: Structure and stability of the per-thiaproline mutant of annexin V. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 455-459.	7.1	90
15	Toward the experimental codon reassignment <i>in vivo</i> : protein building with an expanded amino acid repertoire. FASEB Journal, 1999, 13, 41-51.	0.5	88
16	Slow Exchange in the Chromophore of a Green Fluorescent Protein Variant. Journal of the American Chemical Society, 2002, 124, 7932-7942.	13.7	88
17	Supercritical Carbon Dioxide and Its Potential as a Life-Sustaining Solvent in a Planetary Environment. Life, 2014, 4, 331-340.	2.4	88
18	Entropic Contribution of Elongation Factor P to Proline Positioning at the Catalytic Center of the Ribosome. Journal of the American Chemical Society, 2015, 137, 12997-13006.	13.7	88

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19	Atomic Mutations at the Single Tryptophan Residue of Human Recombinant Annexin V: Effects on Structure, Stability, and Activity. <i>Biochemistry</i> , 1999, 38, 10649-10659.	2.5	86
20	Azatriptophans endow proteins with intrinsic blue fluorescence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 16095-16100.	7.1	82
21	Congeneric Lantibiotics from Ribosomal In Vivo Peptide Synthesis with Noncanonical Amino Acids. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 415-418.	13.8	78
22	Global Replacement of Tryptophan with Aminotryptophans Generates Non-Invasive Protein-Based Optical pH Sensors. <i>Angewandte Chemie - International Edition</i> , 2002, 41, 4066-4069.	13.8	75
23	Chemical Evolution of a Bacterial Proteome. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 10030-10034.	13.8	71
24	Bioincorporation of telluromethionine into proteins: a promising new approach for X-ray structure analysis of proteins. Edited by K. Nagai. <i>Journal of Molecular Biology</i> , 1997, 270, 616-623.	4.2	70
25	In Vivo Double and Triple Labeling of Proteins Using Synthetic Amino Acids. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5446-5450.	13.8	67
26	In Vivo Incorporation of Multiple Noncanonical Amino Acids into Proteins. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2896-2902.	13.8	67
27	Photoactivatable Mussel-Based Underwater Adhesive Proteins by an Expanded Genetic Code. <i>ChemBioChem</i> , 2017, 18, 1819-1823.	2.6	67
28	Lipase Congeners Designed by Genetic Code Engineering. <i>ChemCatChem</i> , 2011, 3, 213-221.	3.7	65
29	Organic fluorine as a polypeptide building element: in vivo expression of fluorinated peptides, proteins and proteomes. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 7241.	2.8	64
30	Residue-specific global fluorination of <i>Candida antarctica</i> lipase B in <i>Pichia pastoris</i> . <i>Molecular BioSystems</i> , 2010, 6, 1630.	2.9	60
31	Site-Resolved Observation of Vibrational Energy Transfer Using a Genetically Encoded Ultrafast Heater. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 2899-2903.	13.8	57
32	Parallel Incorporation of Different Fluorinated Amino Acids: On the Way to "Teflon" Proteins. <i>ChemBioChem</i> , 2010, 11, 1505-1507.	2.6	56
33	¹³ (S)-Trifluoromethyl proline: evaluation as a structural substitute of proline for solid state ¹⁹ F-NMR peptide studies. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 3171-3181.	2.8	56
34	Peptidyl Prolylcis/trans-Isomerases: Comparative Reactivities of Cyclophilins, FK506-Binding Proteins, and Parvulins with Fluorinated Oligopeptide and Protein Substrates. <i>Biochemistry</i> , 2005, 44, 16026-16034.	2.5	55
35	Towards New Protein Engineering: In Vivo Building and Folding of Protein Shuttles for Drug Delivery and Targeting by the Selective Pressure Incorporation (SPI) Method. <i>Tetrahedron</i> , 2000, 56, 9431-9442.	1.9	51
36	Incorporation of ¹²⁵ I-seleno[3,2-b]pyrrolyl-alanine into proteins for phase determination in protein X-ray crystallography. <i>Journal of Molecular Biology</i> , 2001, 309, 925-936.	4.2	51

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37	Performance Analysis of Orthogonal Pairs Designed for an Expanded Eukaryotic Genetic Code. PLoS ONE, 2012, 7, e31992.	2.5	51
38	Coupling genetic code expansion and metabolic engineering for synthetic cells. Current Opinion in Biotechnology, 2017, 48, 1-7.	6.6	50
39	Bioconjugation of ϵ -3,4-Dihydroxyphenylalanine Containing Protein with a Polysaccharide. Bioconjugate Chemistry, 2011, 22, 551-555.	3.6	49
40	Expanded genetic code for the engineering of ribosomally synthesized and post-translationally modified peptide natural products (RiPPs). Current Opinion in Biotechnology, 2013, 24, 591-598.	6.6	48
41	Coupling Bioorthogonal Chemistries with Artificial Metabolism: Intracellular Biosynthesis of Azidohomoalanine and Its Incorporation into Recombinant Proteins. Molecules, 2014, 19, 1004-1022.	3.8	48
42	Xenobiology: a roadmap for genetic code engineering. Microbial Biotechnology, 2016, 9, 666-676.	4.2	47
43	Prospects of In vivo Incorporation of Non-canonical Amino Acids for the Chemical Diversification of Antimicrobial Peptides. Frontiers in Microbiology, 2017, 8, 124.	3.5	47
44	Atomic mutations in annexin V. Thermodynamic studies of isomorphous protein variants. FEBS Journal, 1998, 253, 1-9.	0.2	46
45	Structural and Spectral Response of Aequorea victoria Green Fluorescent Proteins to Chromophore Fluorination. Biochemistry, 2005, 44, 3663-3672.	2.5	46
46	Discharging tRNAs: a tug of war between translation and detoxification in <i>Escherichia coli</i> . Nucleic Acids Research, 2016, 44, 8324-8334.	14.5	46
47	Cell-free expression with the toxic amino acid canavanine. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 3658-3660.	2.2	44
48	Synthetic Biology of Protein Folding. ChemPhysChem, 2010, 11, 1181-1187.	2.1	43
49	Probing the role of tryptophans in Aequorea victoria green fluorescent proteins with an expanded genetic code. Biological Chemistry, 2004, 385, 191-202.	2.5	42
50	Proteins with β -(thienopyrrolyl)alanines as alternative chromophores and pharmaceutically active amino acids. Protein Science, 2008, 10, 1281-1292.	7.6	42
51	Site-Directed and Global Incorporation of Orthogonal and Isostructural Noncanonical Amino Acids into the Ribosomal Lasso Peptide Capistrin. ChemBioChem, 2015, 16, 503-509.	2.6	42
52	Design of β -Allylcysteine in Situ Production and Incorporation Based on a Novel Pyrrolysyl-tRNA Synthetase Variant. ChemBioChem, 2017, 18, 85-90.	2.6	42
53	Sense codon emancipation for proteome-wide incorporation of noncanonical amino acids: rare isoleucine codon AUA as a target for genetic code expansion. FEMS Microbiology Letters, 2014, 351, 133-144.	1.8	41
54	Comprehensive identification of proteins binding to RNA G-quadruplex motifs in the 5' UTR of tumor-associated mRNAs. Biochimie, 2018, 144, 169-184.	2.6	41

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55	One-Pot Synthesis of Unprotected Anomeric Glycosyl Thiols in Water for Glycan Ligation Reactions with Highly Functionalized Sugars. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15510-15514.	13.8	40
56	Noninvasive Tracing of Recombinant Proteins with α -Fluorophenylalanine-Fingers. <i>Analytical Biochemistry</i> , 2000, 284, 29-34.	2.4	38
57	Efforts towards the Design of "Teflon" Proteins: In vivo Translation with Trifluorinated Leucine and Methionine Analogues. <i>Chemistry and Biodiversity</i> , 2004, 1, 1465-1475.	2.1	38
58	Non-canonical amino acids as a useful synthetic biological tool for lipase-catalysed reactions in hostile environments. <i>Catalysis Science and Technology</i> , 2013, 3, 1198.	4.1	38
59	Designing novel spectral classes of proteins with a tryptophan-expanded genetic code. <i>Biological Chemistry</i> , 2004, 385, 893-904.	2.5	38
60	Peptidyl-Prolyl Model Study: How Does the Electronic Effect Influence the Amide Bond Conformation?. <i>Journal of Organic Chemistry</i> , 2017, 82, 8831-8841.	3.2	36
61	Synthesis of γ -(1-azulenyl)-L-alanine as a potential blue-colored fluorescent tryptophan analog and its use in peptide synthesis. , 2000, 6, 139-144.		35
62	Site-selective modification of proteins for the synthesis of structurally defined multivalent scaffolds. <i>Chemical Communications</i> , 2012, 48, 522-524.	4.1	35
63	Review. <i>Biological Chemistry</i> , 1997, 378, 211-8.	2.5	34
64	Engineering Protein Sequence Composition for Folding Robustness Renders Efficient Noncanonical Amino acid Incorporations. <i>ChemBioChem</i> , 2010, 11, 2521-2524.	2.6	33
65	Improved method to retain cytosolic reporter protein fluorescence while staining for nuclear proteins. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2014, 85, 621-627.	1.5	33
66	Biokatalyse mit nicht-natürlichen Aminosäuren: Enzymologie trifft Xenobiologie. <i>Angewandte Chemie</i> , 2017, 129, 9810-9835.	2.0	33
67	Natural history and experimental evolution of the genetic code. <i>Applied Microbiology and Biotechnology</i> , 2007, 74, 739-753.	3.6	32
68	Efficient N-terminal Glycoconjugation of Proteins by the N-End Rule. <i>ChemBioChem</i> , 2008, 9, 1220-1224.	2.6	32
69	Blue Fluorescent Amino Acids as In Vivo Building Blocks for Proteins. <i>ChemBioChem</i> , 2010, 11, 305-314.	2.6	32
70	Expression, purification, characterization, and X-ray analysis of selenomethionine 215 variant of leukocyte collagenase. <i>The Protein Journal</i> , 1997, 16, 637-650.	1.1	31
71	On the Road towards Chemically Modified Organisms Endowed with a Genetic Firewall. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 6960-6962.	13.8	31
72	Towards Biocontained Cell Factories: An Evolutionarily Adapted Escherichia coli Strain Produces a New-to-nature Bioactive Lantibiotic Containing Thienopyrrole-Alanine. <i>Scientific Reports</i> , 2016, 6, 33447.	3.3	31

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73	Broad substrate tolerance of tubulin tyrosine ligase enables one-step site-specific enzymatic protein labeling. <i>Chemical Science</i> , 2017, 8, 3471-3478.	7.4	31
74	Computational Aminoacyl-tRNA Synthetase Library Design for Photocaged Tyrosine. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2343.	4.1	31
75	Xenobiology, New-to-Nature Synthetic Cells and Genetic Firewall. <i>Current Organic Chemistry</i> , 2014, 18, 936-943.	1.6	31
76	Long-Range Modulations of Electric Fields in Proteins. <i>Journal of Physical Chemistry B</i> , 2018, 122, 8330-8342.	2.6	30
77	A New Efficient Synthesis of Acetyltelluro- and Acetylselenomethionine and Their Use in the Biosynthesis of Heavy-Atom Protein Analogs. <i>Journal of the American Chemical Society</i> , 1996, 118, 913-914.	13.7	28
78	Structure and evolution of the genetic code viewed from the perspective of the experimentally expanded amino acid repertoire in vivo. <i>Cellular and Molecular Life Sciences</i> , 1999, 55, 1626-1635.	5.4	28
79	Aminotryptophan-containing barstar: Structure–function tradeoff in protein design and engineering with an expanded genetic code. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006, 1764, 1147-1158.	2.3	28
80	Intracellular uptake and inhibitory activity of aromatic fluorinated amino acids in human breast cancer cells. <i>ChemMedChem</i> , 2008, 3, 1449-1456.	3.2	28
81	Molecular cloning and sequence analysis of a novel zinc-metalloprotease gene from the <i>Salinivibrio</i> sp. strain AF-2004 and its extracellular expression in <i>E. coli</i> . <i>Gene</i> , 2008, 408, 196-203.	2.2	28
82	Energetic contribution to both acidity and conformational stability in peptide models. <i>New Journal of Chemistry</i> , 2016, 40, 5209-5220.	2.8	28
83	Expanding the DOPA Universe with Genetically Encoded, Mussel-Inspired Bioadhesives for Material Sciences and Medicine. <i>ChemBioChem</i> , 2019, 20, 2163-2190.	2.6	28
84	Through bonds or contacts? Mapping protein vibrational energy transfer using non-canonical amino acids. <i>Nature Communications</i> , 2021, 12, 3284.	12.8	28
85	Multiomics Analysis Provides Insight into the Laboratory Evolution of <i>Escherichia coli</i> toward the Metabolic Usage of Fluorinated Indoles. <i>ACS Central Science</i> , 2021, 7, 81-92.	11.3	27
86	Enhancing the thermal stability of a single-chain Fv fragment by in vivo global fluorination of the proline residues. <i>Molecular BioSystems</i> , 2011, 7, 258-265.	2.9	26
87	On universal coding events in protein biogenesis. <i>BioSystems</i> , 2018, 164, 16-25.	2.0	26
88	Fluoroprolines as Tools for Protein Design and Engineering We thank Mrs. E. Weyher for skillful technical assistance in spectroscopic analyses and Mrs. W. Wenger for her excellent technical assistance in protein preparation. We are indebted to Dr. R. Golbik for providing us with barstar plasmid and protocols for its isolation and purification.. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 923-925.	13.8	26
89	Fine Tuning the N-Terminal Residue Excision with Methionine Analogues. <i>ChemBioChem</i> , 2009, 10, 217-220.	2.6	25
90	Discovery and Investigation of Natural Editing Function against Artificial Amino Acids in Protein Translation. <i>ACS Central Science</i> , 2017, 3, 73-80.	11.3	25

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91	Expanding and Engineering the Genetic Code in a Single Expression Experiment. <i>ChemBioChem</i> , 2011, 12, 552-555.	2.6	24
92	Evolution of fluorinated enzymes: An emerging trend for biocatalyst stabilization. <i>Engineering in Life Sciences</i> , 2014, 14, 340-351.	3.6	23
93	Construction of a polyproline structure with hydrophobic exterior using octahydroindole-2-carboxylic acid. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 619-627.	2.8	23
94	Synthetic alienation of microbial organisms by using genetic code engineering: Why and how?. <i>Biotechnology Journal</i> , 2017, 12, 1600097.	3.5	23
95	Anticipating alien cells with alternative genetic codes: away from the alanine world!. <i>Current Opinion in Biotechnology</i> , 2019, 60, 242-249.	6.6	23
96	The Alanine World Model for the Development of the Amino Acid Repertoire in Protein Biosynthesis. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5507.	4.1	23
97	Selective ¹⁹ F-Labeling of Functionalized Carboxylic Acids with Difluoromethyl Diazomethane (CF ₂ HCHN ₂). <i>Chemistry - A European Journal</i> , 2017, 23, 13279-13283.	3.3	22
98	Alternative Biochemistries for Alien Life: Basic Concepts and Requirements for the Design of a Robust Biocontainment System in Genetic Isolation. <i>Genes</i> , 2019, 10, 17.	2.4	22
99	In vivo engineering of proteins with nitrogen-containing tryptophan analogs. <i>Applied Microbiology and Biotechnology</i> , 2006, 73, 740-754.	3.6	21
100	Expanding the genetic code of <i>Saccharomyces cerevisiae</i> with methionine analogues. <i>Yeast</i> , 2008, 25, 775-786.	1.7	21
101	Polyoxometalate-stabilized, water dispersible Fe ₂ Pt magnetic nanoparticles. <i>Nanoscale</i> , 2013, 5, 2511.	5.6	20
102	Discovery and Characterization of a New Cold-Active Protease From an Extremophilic Bacterium via Comparative Genome Analysis and in vitro Expression. <i>Frontiers in Microbiology</i> , 2020, 11, 881.	3.5	20
103	Crystallographic Evidence for Isomeric Chromophores in 3-Fluorotyrosyl-Green Fluorescent Protein. <i>ChemBioChem</i> , 2004, 5, 720-722.	2.6	19
104	Fluorine-Rich Planetary Environments as Possible Habitats for Life. <i>Life</i> , 2014, 4, 374-385.	2.4	19
105	Congeneric bio-adhesive mussel foot proteins designed by modified prolines revealed a chiral bias in unnatural translation. <i>Biochemical and Biophysical Research Communications</i> , 2012, 421, 646-650.	2.1	18
106	Expanding the Genetic Code of <i>Lactococcus lactis</i> and <i>Escherichia coli</i> to Incorporate Non-canonical Amino Acids for Production of Modified Lantibiotics. <i>Frontiers in Microbiology</i> , 2018, 9, 657.	3.5	18
107	Conjugation of Proteins by Installing BIO-Orthogonally Reactive Groups at Their N-Termini. <i>PLoS ONE</i> , 2012, 7, e46741.	2.5	18
108	Photostability of green and yellow fluorescent proteins with fluorinated chromophores, investigated by fluorescence correlation spectroscopy. <i>Biophysical Chemistry</i> , 2008, 136, 38-43.	2.8	17

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109	Painting argyrins blue: Negishi cross-coupling for synthesis of deep-blue tryptophan analogue Î²-(1-azulenyl)-l alanine and its incorporation into argyrin C. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 5259-5269.	3.0	17
110	Comparative effects of trifluoromethyl- and methyl-group substitutions in proline. <i>New Journal of Chemistry</i> , 2018, 42, 13461-13470.	2.8	17
111	Azatriptophans as tools to study polarity requirements for folding of green fluorescent protein. <i>Journal of Peptide Science</i> , 2010, 16, 589-595.	1.4	16
112	Orthogonal Translation Meets Electron Transfer: In Vivo Labeling of Cytochrome <i>c</i> for Probing Local Electric Fields. <i>ChemBioChem</i> , 2015, 16, 742-745.	2.6	16
113	An Engineered <i>Escherichia coli</i> Strain with Synthetic Metabolism for inâ€Cell Production of Translationally Active Methionine Derivatives. <i>ChemBioChem</i> , 2020, 21, 3525-3538.	2.6	16
114	Nichtinvasive Transformation von Proteinen in optische pH-Sensoren durch Austausch von Tryptophan gegen Aminotryptophan. <i>Angewandte Chemie</i> , 2002, 114, 4238-4242.	2.0	15
115	Genetically Encoded Photocrosslinkers as Molecular Probes To Study Gâ€Proteinâ€Coupled Receptors (GPCRs). <i>Angewandte Chemie - International Edition</i> , 2012, 51, 310-312.	13.8	15
116	Transmembrane Polyproline Helix. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 2170-2174.	4.6	15
117	Combating Antimicrobial Resistance With New-To-Nature Lanthipeptides Created by Genetic Code Expansion. <i>Frontiers in Microbiology</i> , 2020, 11, 590522.	3.5	15
118	Biochemistry of fluoroprolines: the prospect of making fluorine a bioelement. <i>Beilstein Journal of Organic Chemistry</i> , 2021, 17, 439-460.	2.2	15
119	Engineering Pyrrolysyl-tRNA Synthetase for the Incorporation of Non-Canonical Amino Acids with Smaller Side Chains. <i>International Journal of Molecular Sciences</i> , 2021, 22, 11194.	4.1	15
120	Evaluation and biosynthetic incorporation of chlorotyrosine into recombinant proteins. <i>Biotechnology and Bioprocess Engineering</i> , 2012, 17, 679-686.	2.6	14
121	Applying Î³-Substituted Prolines in the <i>Foldon</i> Peptide: Polarity Contradicts Preorganization. <i>ChemBioChem</i> , 2015, 16, 403-406.	2.6	14
122	Xenobiology: State-of-the-Art, Ethics, and Philosophy of New-to-Nature Organisms. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2017, 162, 301-315.	1.1	14
123	Hydrolysis, polarity, and conformational impact of C-terminal partially fluorinated ethyl esters in peptide models. <i>Beilstein Journal of Organic Chemistry</i> , 2017, 13, 2442-2457.	2.2	14
124	In Vivo Chemoenzymatic Control of Nâ€Terminal Processing in Recombinant Human Epidermal Growth Factor. <i>ChemBioChem</i> , 2007, 8, 2227-2232.	2.6	13
125	Orthogonal dual-modification of proteins for the engineering of multivalent protein scaffolds. <i>Beilstein Journal of Organic Chemistry</i> , 2015, 11, 784-791.	2.2	13
126	Site-specific conjugation of 8-ethynyl-BODIPY to a protein by [2 + 3] cycloaddition. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 6728-6736.	2.8	13

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127	<i>cis</i> → <i>trans</i> -Amide isomerism of the 3,4-dehydroproline residue, the "unpuckered" proline. Beilstein Journal of Organic Chemistry, 2016, 12, 589-593.	2.2	13
128	Exploring hydrophobicity limits of polyproline helix with oligomeric octahydroindole-2-carboxylic acid. Journal of Peptide Science, 2018, 24, e3076.	1.4	13
129	Gold fluorescent annexin A5 as a novel apoptosis detection tool. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2009, 75A, 626-633.	1.5	12
130	Amide rotation trajectories probed by symmetry. Organic and Biomolecular Chemistry, 2017, 15, 6764-6772.	2.8	12
131	Fine-tuning Protein Self-Organization by Orthogonal Chemo-Optogenetic Tools. Angewandte Chemie - International Edition, 2021, 60, 4501-4506.	13.8	12
132	Convenient syntheses of homopropargylglycine. Journal of Peptide Science, 2008, 14, 1148-1150.	1.4	11
133	Secretion of recombinant archeal lipase mediated by SVP2 signal peptide in Escherichia coli and its optimization by response surface methodology. Protein Expression and Purification, 2014, 101, 84-90.	1.3	11
134	An expanded genetic code for probing the role of electrostatics in enzyme catalysis by vibrational Stark spectroscopy. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 3053-3059.	2.4	11
135	The Regioselective Synthesis of o-Nitrobenzyl DOPA Derivatives. Synthesis, 2017, 49, 2691-2699.	2.3	11
136	Site-Specific Chemoselective Pyrrolysine Analogues Incorporation Using the Cell-Free Protein Synthesis System. ACS Synthetic Biology, 2019, 8, 381-390.	3.8	11
137	Towards Reassignment of the Methionine Codon AUG to Two Different Noncanonical Amino Acids in Bacterial Translation. Croatica Chemica Acta, 2016, 89, .	0.4	11
138	Characterization of Polymer Degrading Lipases, LIP1 and LIP2 From Pseudomonas chlororaphis PA23. Frontiers in Bioengineering and Biotechnology, 2022, 10, 854298.	4.1	11
139	Incorporation of Amino Acids with Long-Chain Terminal Olefins into Proteins. Molecules, 2016, 21, 287.	3.8	10
140	Ortsaufgelöste Beobachtung von Schwingungsenergie transfer durch ein genetisch codiertes ultraschnelles Heizelement. Angewandte Chemie, 2019, 131, 2925-2930.	2.0	10
141	Expanding the Scope of Orthogonal Translation with Pyrrolysyl-tRNA Synthetases Dedicated to Aromatic Amino Acids. Molecules, 2020, 25, 4418.	3.8	10
142	Xenobiology: A Journey towards Parallel Life Forms. ChemBioChem, 2020, 21, 2228-2231.	2.6	10
143	Local Electric Field Changes during the Photoconversion of the Bathy Phytochrome Agp2. Biochemistry, 2021, 60, 2967-2977.	2.5	10
144	Docking of tryptophan analogs to tryptophanyl-tRNA synthetase: implications for non-canonical amino acid incorporations. Biological Chemistry, 2008, 389, 1173-1182.	2.5	9

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145	Protein Iodination by Click Chemistry. <i>ChemBioChem</i> , 2009, 10, 1149-1151.	2.6	9
146	In-Cell Synthesis of Bioorthogonal Alkene Tag S-Allyl-Homocysteine and Its Coupling with Reprogrammed Translation. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2299.	4.1	9
147	Conjugation of Synthetic Polyproline Moieties to Lipid II Binding Fragments of Nisin Yields Active and Stable Antimicrobials. <i>Frontiers in Microbiology</i> , 2020, 11, 575334.	3.5	9
148	Adding New Tools to the Arsenal of Expressed Protein Ligation. <i>ChemBioChem</i> , 2004, 5, 1176-1179.	2.6	8
149	Strategy for Enhancement of ¹³ C-Photo-CIDNP NMR Spectra by Exploiting Fractional ¹³ C-Labeling of Tryptophan. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13934-13943.	2.6	8
150	Residue-specific Incorporation of Noncanonical Amino Acids into Model Proteins Using an <i>Escherichia coli</i> Cell-free Transcription-translation System. <i>Journal of Visualized Experiments</i> , 2016, , .	0.3	8
151	Synthesis of a Photo-Caged DOPA Derivative by Selective Alkylation of 3,4-Dihydroxybenzaldehyde. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 2053-2063.	2.4	8
152	Evaluation of bichinchonic acid as a ligand for copper(i)-catalyzed azide-alkyne bioconjugations. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 6629.	2.8	7
153	Obtention of enantiomerically pure 5,5,5-trifluoro-l-isoleucine and 5,5,5-trifluoro-l-alloisoleucine. <i>Journal of Fluorine Chemistry</i> , 2013, 156, 372-377.	1.7	7
154	Eintopfsynthese ungeschätzter anomerer Glykosylthiole in Wasser für Glykan-Ligationen mit hochfunktionalisierten Zuckern. <i>Angewandte Chemie</i> , 2016, 128, 15736-15740.	2.0	7
155	Self-Directed in Cell Production of Methionine Analogue Azidohomoalanine by Synthetic Metabolism and Its Incorporation into Model Proteins. <i>Methods in Molecular Biology</i> , 2018, 1728, 127-135.	0.9	7
156	Antimicrobial Peptides Produced by Selective Pressure Incorporation of Non-canonical Amino Acids. <i>Journal of Visualized Experiments</i> , 2018, , .	0.3	7
157	Synthesis of a new metal chelating amino acid: Terpyridyl-alanine. <i>Tetrahedron Letters</i> , 2019, 60, 906-910.	1.4	7
158	Promotion of the collagen triple helix in a hydrophobic environment. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 2502-2507.	2.8	7
159	Bilayer thickness determines the alignment of model polyproline helices in lipid membranes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22396-22408.	2.8	7
160	Biocatalytic synthesis of (2S)-5,5,5-trifluoroleucine and improved resolution into (2S,4S) and (2S,4R) diastereoisomers. <i>Tetrahedron Letters</i> , 2013, 54, 3662-3665.	1.4	6
161	Directed Manipulation of a Flavoprotein Photocycle. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 8463-8466.	13.8	6
162	Photochemical formation of quinone methides from peptides containing modified tyrosine. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 10894-10905.	2.8	6

#	ARTICLE	IF	CITATIONS
163	Orthogonal Protein Translation Using Pyrrolysyl-tRNA Synthetases for Single- and Multiple-Noncanonical Amino Acid Mutagenesis. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2016, 162, 1-19.	1.1	6
164	Efficient Unnatural Protein Production by Pyrrolysyl-tRNA Synthetase With Genetically Fused Solubility Tags. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 807438.	4.1	6
165	Dendronylation: Residue-specific chemoselective attachment of oligoglycerol dendrimers on proteins with noncanonical amino acids. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 5247-5249.	2.2	5
166	Synthesis of New Aza- and Thia-Crown Ether Based Amino Acids. <i>ChemistrySelect</i> , 2020, 5, 2854-2857.	1.5	5
167	Courses Based on iGEM/BIOMOD Competitions Are the Ideal Format for Research-Based Learning of Xenobiology. <i>ChemBioChem</i> , 2021, 22, 818-825.	2.6	5
168	Expression of "Tailor-Made"™ Proteins via Incorporation of Synthetic Amino Acids by Using Cell-Free Protein Synthesis. , 2003, , 89-98.		5
169	Design of protein congeners containing β^2 -cyclopropylalanine. <i>Molecular BioSystems</i> , 2012, 8, 2719.	2.9	4
170	Toward intrinsically colored peptides: Synthesis and investigation of the spectral properties of methylated azatryptophans in tryptophan-εage mutants. <i>Biopolymers</i> , 2015, 104, 585-600.	2.4	4
171	Fine-Tuning Protein Self-Organization by Orthogonal Chemo-Optogenetic Tools. <i>Angewandte Chemie</i> , 2021, 133, 4551-4556.	2.0	4
172	Global substitution of hemeproteins with noncanonical amino acids in <i>Escherichia coli</i> with intact cofactor maturation machinery. <i>Enzyme and Microbial Technology</i> , 2017, 106, 55-59.	3.2	3
173	Remarkably high solvatochromism in the circular dichroism spectra of the polyproline-II conformation: limitations or new opportunities?. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 26931-26939.	2.8	3
174	Targeted Codelivery of Prodigiosin and Simvastatin Using Smart BioMOF: Functionalization by Recombinant Anti-VEGFR1 scFv. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 866275.	4.1	3
175	Engineering 'Golden' Fluorescence by Selective Pressure Incorporation of Non-canonical Amino Acids and Protein Analysis by Mass Spectrometry and Fluorescence. <i>Journal of Visualized Experiments</i> , 2018, , .	0.3	2
176	Synthetic Biology: Diverse Layers of Live. <i>Wissenschaftsethik Und Technikfolgenbeurteilung</i> , 2016, , 27-50.	1.0	2
177	Residue-Specific Exchange of Proline by Proline Analogs in Fluorescent Proteins: How "Molecular Surgery" of the Backbone Affects Folding and Stability. <i>Journal of Visualized Experiments</i> , 2022, , .	0.3	2
178	Probing the spectral signatures of orange carotenoid protein by orthogonal translation with aromatic non-canonical amino acids. <i>Biochemical and Biophysical Research Communications</i> , 2022, 607, 96-102.	2.1	2
179	Design of Orthogonal Pairs for Protein Translation: Selection Systems for Genetically Encoding Noncanonical Amino Acids in <i>E. coli</i> . <i>Springer Protocols</i> , 2015, , 71-82.	0.3	1
180	Engineering Green Fluorescent Proteins Using an Expanded Genetic Code. <i>Reviews in Fluorescence</i> , 2010, , 359-386.	0.5	1

#	ARTICLE	IF	CITATIONS
181	Prolegomena to Future Experimental Efforts on Genetic Code Engineering by Expanding Its Amino Acid Repertoire. ChemInform, 2005, 36, no.	0.0	0
182	Adding New Tools to the Arsenal of Expressed Protein Ligation. ChemInform, 2005, 36, no.	0.0	0
183	Biochemie 2010. Nachrichten Aus Der Chemie, 2011, 59, 297-318.	0.0	0
184	Synthetic Biology of Autofluorescent Proteins. Springer Series on Fluorescence, 2011, , 99-130.	0.8	0
185	The New Worlds of Synthetic Biology – Synopsis. Wissenschaftsethik Und Technikfolgenbeurteilung, 2016, , 1-25.	1.0	0
186	Design and Application of Autofluorescent Proteins by Biological Incorporation of Intrinsically Fluorescent Noncanonical Amino Acids. , 2016, , 89-123.		0
187	Frontispiece: Selective ¹⁹ F Labeling of Functionalized Carboxylic Acids with Difluoromethyl Diazomethane (CF ₂ HCHN ₂). Chemistry - A European Journal, 2017, 23, .	3.3	0
188	Ortsaufgelöste Beobachtung von Schwingungsenergieübertragung durch ein genetisch codiertes ultraschnelles Heizelement (Angew. Chem. 9/2019). Angewandte Chemie, 2019, 131, 2932-2932.	2.0	0
189	Towards the Direct Measurement of Ultrafast Vibrational Energy Transfer in Proteins. , 2014, , .		0