Xinya Hemu

List of Publications by Year
in descending order

72 papers	4,569 citations	94433 37 h-index	110387 64 g-index
73 all docs	73 docs citations	73 times ranked	3010 citing authors

#	Article	IF	Citations
1	Butelase 1 is an Asx-specific ligase enabling peptide macrocyclization and synthesis. Nature Chemical Biology, 2014, 10, 732-738.	8.0	348
2	Antimicrobial dendrimeric peptides. FEBS Journal, 2002, 269, 923-932.	0.2	208
3	Orally Active Peptidic Bradykinin B₁â€...Receptor Antagonists Engineered from a Cyclotide Scaffold for Inflammatory Pain Treatment. Angewandte Chemie - International Edition, 2012, 51, 5620-5624.	13.8	208
4	Synthesis and Application of Unprotected Cyclic Peptides as Building Blocks for Peptide Dendrimers. Journal of the American Chemical Society, 1997, 119, 2363-2370.	13.7	197
5	Methods and strategies of peptide ligation. Biopolymers, 2001, 60, 194-205.	2.4	182
6	Chemical Ligation Approach To Form a Peptide Bond between Unprotected Peptide Segments. Concept and Model Study. Journal of the American Chemical Society, 1994, 116, 4149-4153.	13.7	176
7	Discovery and Characterization of Novel Cyclotides Originated from Chimeric Precursors Consisting of Albumin-1 Chain a and Cyclotide Domains in the Fabaceae Family. Journal of Biological Chemistry, 2011, 286, 24275-24287.	3.4	153
8	Engineering a Catalytically Efficient Recombinant Protein Ligase. Journal of the American Chemical Society, 2017, 139, 5351-5358.	13.7	153
9	Butelase 1: A Versatile Ligase for Peptide and Protein Macrocyclization. Journal of the American Chemical Society, 2015, 137, 15398-15401.	13.7	147
10	Thia Zip Reaction for Synthesis of Large Cyclic Peptides:â€‰ Mechanisms and Applications. Journal of the American Chemical Society, 1999, 121, 4316-4324.	13.7	139
11	Orthogonal ligation strategies for peptide and protein. , 1999, 51, 311-332.		136
12	A biomimetic strategy in the synthesis and fragmentation of cyclic protein. Protein Science, 1998, 7, 1583-1592.	7.6	120
13	Methionine ligation strategy in the biomimetic synthesis of parathyroid hormones. , 1998, 46, 319-327.		112
14	Preparation of functionally active cell-permeable peptides by single-step ligation of two peptide modules. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 9184-9189.	7.1	99
15	Discovery of Linear Cyclotides in Monocot Plant Panicum laxum of Poaceae Family Provides New Insights into Evolution and Distribution of Cyclotides in Plants. Journal of Biological Chemistry, 2013, 288, 3370-3380.	3.4	99
16	Self-powered, on-demand transdermal drug delivery system driven by triboelectric nanogenerator. Nano Energy, 2019, 62, 610-619.	16.0	99
17	Butelase-mediated cyclization and ligation of peptides and proteins. Nature Protocols, 2016, 11, 1977-1988.	12.0	95
18	Total Synthesis of Circular Bacteriocins by Butelase 1. Journal of the American Chemical Society, 2016, 138, 6968-6971.	13.7	90

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19	Synthesis of large cyclic cystine-knot peptide by orthogonal coupling strategy using unprotected peptide precursor. Tetrahedron Letters, 1997, 38, 5599-5602.	1.4	87
20	Orthogonal Ligation of Unprotected Peptide Segments through Pseudoproline Formation for the Synthesis of HIV-1 Protease Analogs,. Journal of the American Chemical Society, 1996, 118, 307-312.	13.7	86
21	Butelaseâ€Mediated Macrocyclization of <scp>d</scp>â€Aminoâ€Acidâ€Containing Peptides. Angewandte Chemie - International Edition, 2016, 55, 12802-12806.	13.8	82
22	Structural determinants for peptide-bond formation by asparaginyl ligases. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11737-11746.	7.1	81
23	Novel Cyclotides and Uncyclotides with Highly Shortened Precursors from Chassalia chartacea and Effects of Methionine Oxidation on Bioactivities. Journal of Biological Chemistry, 2012, 287, 17598-17607.	3.4	72
24	One-Pot Dual Labeling of IgG 1 and Preparation of C-to-C Fusion Proteins Through a Combination of Sortase A and Butelase 1. Bioconjugate Chemistry, 2018, 29, 3245-3249.	3.6	72
25	Membranolytic selectivity of cystine-stabilized cyclic protegrins. FEBS Journal, 2000, 267, 3289-3300.	0.2	69
26	Butelase-mediated synthesis of protein thioesters and its application for tandem chemoenzymatic ligation. Chemical Communications, 2015, 51, 17289-17292.	4.1	68
27	Enzymatic Engineering of Live Bacterial Cell Surfaces Using Butelaseâ€...1. Angewandte Chemie - International Edition, 2017, 56, 7822-7825.	13.8	63
28	Orthogonal coupling of unprotected peptide segments through histidyl amino terminus. Tetrahedron Letters, 1997, 38, 3-6.	1.4	61
29	Chemical Synthesis of Circular Proteins. Journal of Biological Chemistry, 2012, 287, 27020-27025.	3.4	59
30	Twoâ€step selective formation of three disulfide bridges in the synthesis of the Câ€terminal epidermal growth factorâ€like domain in human blood coagulation factor IX. Protein Science, 1994, 3, 1267-1275.	7.6	57
31	Acyl disulfide-mediated intramolecular acylation for orthogonal coupling between unprotected peptide segments. Mechanism and application. Tetrahedron Letters, 1996, 37, 933-936.	1.4	57
32	Correlations of Cationic Charges with Salt Sensitivity and Microbial Specificity of Cystine-stabilized Î²-Strand Antimicrobial Peptides. Journal of Biological Chemistry, 2002, 277, 50450-50456.	3.4	55
33	A Thioethylalkylamido (TEA) Thioester Surrogate in the Synthesis of a Cyclic Peptide via a Tandem Acyl Shift. Organic Letters, 2013, 15, 2620-2623.	4.6	54
34	Optimal Oxidative Folding of the Novel Antimicrobial Cyclotide from Hedyotis biflora Requires High Alcohol Concentrations. Biochemistry, 2011, 50, 7275-7283.	2.5	52
35	Immunostimulating and Gramâ€negativeâ€specific antibacterial cyclotides from the butterfly pea (Clitoria ternatea). FEBS Journal, 2016, 283, 2067-2090.	4.7	49
36	A high-throughput peptidomic strategy to decipher the molecular diversity of cyclic cysteine-rich peptides. Scientific Reports, 2016, 6, 23005.	3.3	48

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37	Marked Increase in Membranolytic Selectivity of Novel Cyclic Tachyplesins Constrained with an Antiparallel Two-Î² Strand Cystine Knot Framework. Biochemical and Biophysical Research Communications, 2000, 267, 783-790.	2.1	47
38	Butelase-Mediated Ligation as an Efficient Bioconjugation Method for the Synthesis of Peptide Dendrimers. Bioconjugate Chemistry, 2016, 27, 2592-2596.	3.6	40
39	An Orally Active Bradykinin B₁ Receptor Antagonist Engineered as a Bifunctional Chimera of Sunflower Trypsin Inhibitor. Journal of Medicinal Chemistry, 2017, 60, 504-510.	6.4	39
40	Biomimetic synthesis of cyclic peptides using novel thioester surrogates. Biopolymers, 2013, 100, 492-501.	2.4	36
41	A novel strategy for the discrimination of gelatinous Chinese medicines based on enzymatic digestion followed by nano-flow liquid chromatography in tandem with orbitrap mass spectrum detection. International Journal of Nanomedicine, 2015, 10, 4947.	6.7	35
42	Design of Salt-Insensitive Glycine-Rich Antimicrobial Peptides with Cyclic Tricystine Structuresâ€. Biochemistry, 2000, 39, 7159-7169.	2.5	31
43	Dementia-linked amyloidosis is associated with brain protein deamidation as revealed by proteomic profiling of human brain tissues. Molecular Brain, 2016, 9, 20.	2.6	30
44	Bleogens: Cactus-Derived Anti-Candida Cysteine-Rich Peptides with Three Different Precursor Arrangements. Frontiers in Plant Science, 2017, 8, 2162.	3.6	30
45	Turning an Asparaginyl Endopeptidase into a Peptide Ligase. ACS Catalysis, 2020, 10, 8825-8834.	11.2	29
46	Solid-Phase Synthesis of 1,2,3,4-Tetrahydro-Î²-carboline-Containing Peptidomimetics. Organic Letters, 2000, 2, 3075-3078.	4.6	27
47	A Facile Ligation Approach to Prepare Three-Helix Bundles of HIV Fusion-State Protein Mimetics. Organic Letters, 2002, 4, 4167-4170.	4.6	25
48	pH-Controlled Protein Orthogonal Ligation Using Asparaginyl Peptide Ligases. Journal of the American Chemical Society, 2021, 143, 8704-8712.	13.7	25
49	Specificity and formation of unusual amino acids of an amide ligation strategy for unprotected peptides. International Journal of Peptide and Protein Research, 1995, 45, 209-216.	0.1	24
50	Immobilization and Intracellular Delivery of Circular Proteins by Modifying a Genetically Incorporated Unnatural Amino Acid. Bioconjugate Chemistry, 2018, 29, 2170-2175.	3.6	22
51	Macrocyclic Antimicrobial Peptides Engineered from Ï‰-Conotoxin. Current Pharmaceutical Design, 2017, 23, 2131-2138.	1.9	21
52	Immobilized Peptide Asparaginyl Ligases Enhance Stability and Facilitate Macrocyclization and Site-Specific Ligation. Journal of Organic Chemistry, 2020, 85, 1504-1512.	3.2	19
53	Peptide asparaginyl ligasesâ€"renegade peptide bond makers. Science China Chemistry, 2020, 63, 296-307.	8.2	19
54	Pulsed SILAC-based proteomic analysis unveils hypoxia- and serum starvation-induced de novo protein synthesis with PHD finger protein 14 (PHF14) as a hypoxia sensitive epigenetic regulator in cell cycle progression. Oncotarget, 2019, 10, 2136-2150.	1.8	19

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55	Engineering protein theranostics using bio-orthogonal asparaginyl peptide ligases. Theranostics, 2021, 11, 5863-5875.	10.0	17
56	Ligase-Controlled Cyclo-oligomerization of Peptides. Organic Letters, 2019, 21, 2029-2032.	4.6	13
57	Characterization and application of natural and recombinant butelase-1 to improve industrial enzymes by end-to-end circularization. RSC Advances, 2021, 11, 23105-23112.	3.6	12
58	Quantitative analysis and comparison of four major flavonol glycosides in the leaves of Toona sinensis (A. Juss.) roemer (chinese toon) from various origins by high-performance liquid chromatography-diode array detector and hierarchical clustering analysis. Pharmacognosy Magazine, 2016, 12, 270.	0.6	11
59	Solvent assistance in regiospecific disulfide formation in dimethylsulfoxide. International Journal of Peptide Research and Therapeutics, 1999, 6, 265-273.	0.1	10
60	Hololectin Interdomain Linker Determines Asparaginyl Endopeptidase-Mediated Maturation of Antifungal Hevein-Like Peptides in Oats. Frontiers in Plant Science, 2022, 13, .	3.6	10
61	The legumain McPAL1 from Momordica cochinchinensis is a highly stable Asx-specific splicing enzyme. Journal of Biological Chemistry, 2021, 297, 101325.	3.4	9
62	Peptide macrocyclization through amide-to-amide transpeptidation. Tetrahedron, 2014, 70, 7707-7713.	1.9	6
63	Asparaginyl Endopeptidase-Mediated Protein C-Terminal Hydrazinolysis for the Synthesis of Bioconjugates. Bioconjugate Chemistry, 2022, 33, 238-247.	3.6	6
64	Selective Biâ€dirˆectional Amide Bond Cleavage of Nâ€Methylcysteinyl Peptide. European Journal of Organic Chemistry, 2014, 2014, 4370-4380.	2.4	5
65	N Î³ â€Hydroxyasparagine: A Multifunctional Unnatural Amino Acid That is a Good P1 Substrate of Asparaginyl Peptide Ligases. Angewandte Chemie - International Edition, 2021, 60, 22207-22211.	13.8	5
66	Vypal2: A Versatile Peptide Ligase for Precision Tailoring of Proteins. International Journal of Molecular Sciences, 2022, 23, 458.	4.1	5
67	Site-Specific Protein Modifications by an Engineered Asparaginyl Endopeptidase from Viola canadensis. Frontiers in Chemistry, 2021, 9, 768854.	3.6	3
68	PAL-Mediated Ligation for Protein and Cell-Surface Modification. Methods in Molecular Biology, 2022, , 177-193.	0.9	3
69	Mimicking Reverse Protein Splicing by Three-Segment Tandem Peptide Ligation. Protein and Peptide Letters, 2005, 12, 743-749.	0.9	1
70	N Î³ â€Hydroxyasparagine: A Multifunctional Unnatural Amino Acid That is a Good P1 Substrate of Asparaginyl Peptide Ligases. Angewandte Chemie, 2021, 133, 22381-22385.	2.0	1
71	Solvent assistance in regiospecific disulfide formation in dimethylsulfoxide. International Journal of Peptide Research and Therapeutics, 1999, 6, 265-273.	0.1	0
72	Shape-mimetics of G-protein-coupled receptors in therapeutic drug design and screening. Drug Development Research, 2004, 62, 336-348.	2.9	0