Michiko Kimoto

List of Publications by Year
in descending order

55 papers	3,133 citations	147726 31 h-index	168321 53 g-index
58 all docs	58 docs citations	58 times ranked	1703 citing authors

#	Article	IF	Citations
1	Generation of high-affinity DNA aptamers using an expanded genetic alphabet. Nature Biotechnology, 2013, 31, 453-457.	9.4	443
2	An unnatural hydrophobic base pair system: site-specific incorporation of nucleotide analogs into DNA and RNA. Nature Methods, 2006, 3, 729-735.	9.0	229
3	An unnatural base pair system for efficient PCR amplification and functionalization of DNA molecules. Nucleic Acids Research, 2009, 37, e14-e14.	6.5	165
4	Highly specific unnatural base pair systems as a third base pair for PCR amplification. Nucleic Acids Research, 2012, 40, 2793-2806.	6.5	147
5	Natural versus Artificial Creation of Base Pairs in DNA: Origin of Nucleobases from the Perspectives of Unnatural Base Pair Studies. Accounts of Chemical Research, 2012, 45, 2055-2065.	7.6	130
6	A Two-Unnatural-Base-Pair System toward the Expansion of the Genetic Code. Journal of the American Chemical Society, 2004, 126, 13298-13305.	6.6	117
7	An Unnatural Hydrophobic Base Pair with Shape Complementarity between Pyrrole-2-carbaldehyde and 9-Methylimidazo[(4,5)-b]pyridine. Journal of the American Chemical Society, 2003, 125, 5298-5307.	6.6	114
8	High-Affinity DNA Aptamer Generation Targeting von Willebrand Factor A1-Domain by Genetic Alphabet Expansion for Systematic Evolution of Ligands by Exponential Enrichment Using Two Types of Libraries Composed of Five Different Bases. Journal of the American Chemical Society, 2017, 139, 324-334.	6.6	114
9	An Efficient Unnatural Base Pair for PCR Amplification. Journal of the American Chemical Society, 2007, 129, 15549-15555.	6.6	112
10	Site-Specific Fluorescent Labeling of RNA Molecules by Specific Transcription Using Unnatural Base Pairs. Journal of the American Chemical Society, 2005, 127, 17286-17295.	6.6	102
11	Genetic alphabet expansion technology by creating unnatural base pairs. Chemical Society Reviews, 2020, 49, 7602-7626.	18.7	74
12	A Unique Fluorescent Base Analogue for the Expansion of the Genetic Alphabet. Journal of the American Chemical Society, 2010, 132, 4988-4989.	6.6	67
13	Unnatural base pair systems toward the expansion of the genetic alphabet in the central dogma. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2012, 88, 345-367.	1.6	67
14	Fluorescent probing for RNA molecules by an unnatural base-pair system. Nucleic Acids Research, 2007, 35, 5360-5369.	6.5	65
15	Site-specific biotinylation of RNA molecules by transcription using unnatural base pairs. Nucleic Acids Research, 2005, 33, e129-e129.	6.5	61
16	Site-specific labeling of RNA by combining genetic alphabet expansion transcription and copper-free click chemistry. Nucleic Acids Research, 2015, 43, 6665-6676.	6.5	59
17	Synthesis of 6-(2-thienyl)purine nucleoside derivatives that form unnatural base pairs with pyridin-2-one nucleosides. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 2221-2223.	1.0	57
18	Site-Specific Incorporation of a Photo-Crosslinking Component into RNA by T7 Transcription Mediated by Unnatural Base Pairs. Chemistry and Biology, 2004, 11, 47-55.	6.2	57

#	Article	IF	Citations
19	A New Unnatural Base Pair System between Fluorophore and Quencher Base Analogues for Nucleic Acid-Based Imaging Technology. Journal of the American Chemical Society, 2010, 132, 15418-15426.	6.6	55
20	Architecture of high-affinity unnatural-base DNA aptamers toward pharmaceutical applications. Scientific Reports, 2016, 5, 18478.	1.6	52
21	High Fidelity, Efficiency and Functionalization of Dsâ€“Px Unnatural Base Pairs in PCR Amplification for a Genetic Alphabet Expansion System. ACS Synthetic Biology, 2016, 5, 1220-1230.	1.9	52
22	Site-specific functionalization of RNA molecules by an unnatural base pair transcription system via click chemistry. Chemical Communications, 2012, 48, 10835.	2.2	51
23	Post-ExSELEX stabilization of an unnatural-base DNA aptamer targeting VEGF₁₆₅toward pharmaceutical applications. Nucleic Acids Research, 2016, 44, gkw619.	6.5	51
24	Molecular affinity rulers: systematic evaluation of DNA aptamers for their applicabilities in ELISA. Nucleic Acids Research, 2019, 47, 8362-8374.	6.5	47
25	Creation of unnatural base pairs for genetic alphabet expansion toward synthetic xenobiology. Current Opinion in Chemical Biology, 2018, 46, 108-114.	2.8	46
26	Site-specific fluorescent probing of RNA molecules by unnatural base-pair transcription for local structural conformation analysis. Nature Protocols, 2010, 5, 1312-1323.	5.5	45
27	Visual Detection of Amplified DNA by Polymerase Chain Reaction Using a Genetic Alphabet Expansion System. Journal of the American Chemical Society, 2018, 140, 14038-14041.	6.6	41
28	Genetic Alphabet Expansion Provides Versatile Specificities and Activities of Unnatural-Base DNA Aptamers Targeting Cancer Cells. Molecular Therapy - Nucleic Acids, 2019, 14, 158-170.	2.3	39
29	Site-Specific Incorporation of Functional Components into RNA by an Unnatural Base Pair Transcription System. Molecules, 2012, 17, 2855-2876.	1.7	38
30	Genetic alphabet expansion biotechnology by creating unnatural base pairs. Current Opinion in Biotechnology, 2018, 51, 8-15.	3.3	36
31	An unnatural hydrophobic base, 4-propynylpyrrole-2-carbaldehyde, as an efficient pairing partner of 9-methylimidazo[(4,5)- b]pyridine. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 4515-4518.	1.0	34
32	Characterization of fluorescent, unnatural base pairs. Tetrahedron, 2007, 63, 3528-3537.	1.0	34
33	DNA aptamer generation by ExSELEX using genetic alphabet expansion with a mini-hairpin DNA stabilization method. Biochimie, 2018, 145, 15-21.	1.3	33
34	Structural Basis for Expansion of the Genetic Alphabet with an Artificial Nucleobase Pair. Angewandte Chemie - International Edition, 2017, 56, 12000-12003.	7.2	30
35	High-affinity five/six-letter DNA aptamers with superior specificity enabling the detection of dengue NS1 protein variants beyond the serotype identification. Nucleic Acids Research, 2021, 49, 11407-11424.	6.5	29
36	Monitoring the site-specific incorporation of dual fluorophore-quencher base analogues for target DNA detection by an unnatural base pair system. Organic and Biomolecular Chemistry, 2011, 9, 7504.	1.5	25

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37	PCR Amplification and Transcription for Site-Specific Labeling of Large RNA Molecules by a Two-Unnatural-Base-Pair System. Journal of Nucleic Acids, 2012, 2012, 1-8.	0.8	24
38	Unnatural base pairs mediate the site-specific incorporation of an unnatural hydrophobic component into RNA transcripts. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 2593-2596.	1.0	23
39	DNA Aptamer Generation by Genetic Alphabet Expansion SELEX (ExSELEX) Using an Unnatural Base Pair System. Methods in Molecular Biology, 2016, 1380, 47-60.	0.4	23
40	Genetic alphabet expansion transcription generating functional RNA molecules containing a five-letter alphabet including modified unnatural and natural base nucleotides by thermostable T7 RNA polymerase variants. Chemical Communications, 2017, 53, 12309-12312.	2.2	21
41	DNA Sequencing Method Including Unnatural Bases for DNA Aptamer Generation by Genetic Alphabet Expansion. ACS Synthetic Biology, 2019, 8, 1401-1410.	1.9	17
42	Site-Specific Incorporation of Extra Components into RNA by Transcription Using Unnatural Base Pair Systems. Methods in Molecular Biology, 2010, 634, 355-369.	0.4	17
43	Crystal structure of Deep Vent DNA polymerase. Biochemical and Biophysical Research Communications, 2017, 483, 52-57.	1.0	12
44	A quantitative, non-radioactive single-nucleotide insertion assay for analysis of DNA replication fidelity by using an automated DNA sequencer. Biotechnology Letters, 2004, 26, 999-1005.	1.1	11
45	Evolving Aptamers with Unnatural Base Pairs. Current Protocols in Chemical Biology, 2017, 9, 315-339.	1.7	10
46	Cognate baseâ€pair selectivity of hydrophobic unnatural bases in <scp>DNA</scp> ligation by <scp>T4 DNA</scp> ligase. Biopolymers, 2021, 112, e23407.	1.2	9
47	Dyeâ€Conjugated Spinach RNA by Genetic Alphabet Expansion. Chemistry - A European Journal, 2022, 28, .	1.7	9
48	Uptake mechanisms of cell-internalizing nucleic acid aptamers for applications as pharmacological agents. RSC Medicinal Chemistry, 2021, 12, 1640-1649.	1.7	8
49	Genetic Code Engineering by Natural and Unnatural Base Pair Systems for the Site-Specific Incorporation of Non-Standard Amino Acids Into Proteins. Frontiers in Molecular Biosciences, 0, 9, .	1.6	8
50	Strukturelle Studie zur Erweiterung des genetischen Codes durch ein artifizielles Nucleobasenpaar. Angewandte Chemie, 2017, 129, 12162-12166.	1.6	5
51	Sanger Gap Sequencing for Genetic Alphabet Expansion of DNA. ChemBioChem, 2020, 21, 2287-2296.	1.3	5
52	Efficient PCR amplification by an unnatural base pair system. Nucleic Acids Symposium Series, 2008, 52, 469-470.	0.3	4
53	Sequences around the unnatural base pair in DNA templates for efficient replication. Nucleic Acids Symposium Series, 2008, 52, 457-458.	0.3	2
54	Titelbild: Strukturelle Studie zur Erweiterung des genetischen Codes durch ein artifizielles Nucleobasenpaar (Angew. Chem. 39/2017). Angewandte Chemie, 2017, 129, 11815-11815.	1.6	0

#	Article	IF	Citations
55	New Research Area, Xenobiology, by Integrating Chemistry and Biology. Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry, 2020, 78, 465-475.	0.0	0