

Caixia Gao

List of Publications by Year in descending order

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Version: 2024-02-01

115
papers

21,215
citations

20759

60
h-index

18606

119
g-index

125
all docs

125
docs citations

125
times ranked

12223
citing authors

#	ARTICLE	IF	CITATIONS
1	Targeted genome modification of crop plants using a CRISPR-Cas system. <i>Nature Biotechnology</i> , 2013, 31, 686-688.	9.4	1,657
2	Simultaneous editing of three homoeoalleles in hexaploid bread wheat confers heritable resistance to powdery mildew. <i>Nature Biotechnology</i> , 2014, 32, 947-951.	9.4	1,635
3	CRISPR/Cas Genome Editing and Precision Plant Breeding in Agriculture. <i>Annual Review of Plant Biology</i> , 2019, 70, 667-697.	8.6	959
4	Efficient DNA-free genome editing of bread wheat using CRISPR/Cas9 ribonucleoprotein complexes. <i>Nature Communications</i> , 2017, 8, 14261.	5.8	751
5	Efficient and transgene-free genome editing in wheat through transient expression of CRISPR/Cas9 DNA or RNA. <i>Nature Communications</i> , 2016, 7, 12617.	5.8	710
6	Precise base editing in rice, wheat and maize with a Cas9-cytidine deaminase fusion. <i>Nature Biotechnology</i> , 2017, 35, 438-440.	9.4	690
7	Genome editing in rice and wheat using the CRISPR/Cas system. <i>Nature Protocols</i> , 2014, 9, 2395-2410.	5.5	627
8	Breeding crops to feed 10 billion. <i>Nature Biotechnology</i> , 2019, 37, 744-754.	9.4	577
9	Targeted Mutagenesis in <i>Zea mays</i> Using TALENs and the CRISPR/Cas System. <i>Journal of Genetics and Genomics</i> , 2014, 41, 63-68.	1.7	567
10	The OsSPL16-GW7 regulatory module determines grain shape and simultaneously improves rice yield and grain quality. <i>Nature Genetics</i> , 2015, 47, 949-954.	9.4	555
11	Prime genome editing in rice and wheat. <i>Nature Biotechnology</i> , 2020, 38, 582-585.	9.4	544
12	Cytosine, but not adenine, base editors induce genome-wide off-target mutations in rice. <i>Science</i> , 2019, 364, 292-295.	6.0	491
13	Domestication of wild tomato is accelerated by genome editing. <i>Nature Biotechnology</i> , 2018, 36, 1160-1163.	9.4	440
14	Applications of CRISPR-Cas in agriculture and plant biotechnology. <i>Nature Reviews Molecular Cell Biology</i> , 2020, 21, 661-677.	16.1	433
15	Genome engineering for crop improvement and future agriculture. <i>Cell</i> , 2021, 184, 1621-1635.	13.5	405
16	Simultaneous modification of three homoeologs of <i>TaEDR1</i> by genome editing enhances powdery mildew resistance in wheat. <i>Plant Journal</i> , 2017, 91, 714-724.	2.8	403
17	Horizontal gene transfer of <i>Fhb7</i> from fungus underlies <i>Fusarium</i> head blight resistance in wheat. <i>Science</i> , 2020, 368, .	6.0	398
18	Expanded base editing in rice and wheat using a Cas9-adenosine deaminase fusion. <i>Genome Biology</i> , 2018, 19, 59.	3.8	392

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19	Precision Genome Engineering and Agriculture: Opportunities and Regulatory Challenges. <i>PLoS Biology</i> , 2014, 12, e1001877.	2.6	367
20	Progress and prospects in plant genome editing. <i>Nature Plants</i> , 2017, 3, 17107.	4.7	349
21	Establishing a CRISPR-Cas-like immune system conferring DNA virus resistance in plants. <i>Nature Plants</i> , 2015, 1, 15144.	4.7	337
22	Efficient C-to-T base editing in plants using a fusion of nCas9 and human APOBEC3A. <i>Nature Biotechnology</i> , 2018, 36, 950-953.	9.4	310
23	High-efficiency gene targeting in hexaploid wheat using DNA replicons and CRISPR/Cas9. <i>Plant Journal</i> , 2017, 89, 1251-1262.	2.8	305
24	Gene replacements and insertions in rice by intron targeting using CRISPR-Cas9. <i>Nature Plants</i> , 2016, 2, 16139.	4.7	303
25	Applications and potential of genome editing in crop improvement. <i>Genome Biology</i> , 2018, 19, 210.	3.8	286
26	Creation of fragrant rice by targeted knockout of the <i>OsbADH2</i> gene using TALEN technology. <i>Plant Biotechnology Journal</i> , 2015, 13, 791-800.	4.1	276
27	Targeted, random mutagenesis of plant genes with dual cytosine and adenine base editors. <i>Nature Biotechnology</i> , 2020, 38, 875-882.	9.4	259
28	A route to de novo domestication of wild allotetraploid rice. <i>Cell</i> , 2021, 184, 1156-1170.e14.	13.5	259
29	Rapid and Efficient Gene Modification in Rice and Brachypodium Using TALENs. <i>Molecular Plant</i> , 2013, 6, 1365-1368.	3.9	245
30	Genome editing of upstream open reading frames enables translational control in plants. <i>Nature Biotechnology</i> , 2018, 36, 894-898.	9.4	244
31	Hi-TOM: a platform for high-throughput tracking of mutations induced by CRISPR/Cas systems. <i>Science China Life Sciences</i> , 2019, 62, 1-7.	2.3	244
32	Brachypodium as a Model for the Grasses: Today and the Future. <i>Plant Physiology</i> , 2011, 157, 3-13.	2.3	243
33	Analysis of the functions of <i>TaGW2</i> homoeologs in wheat grain weight and protein content traits. <i>Plant Journal</i> , 2018, 94, 857-866.	2.8	211
34	Generation of herbicide tolerance traits and a new selectable marker in wheat using base editing. <i>Nature Plants</i> , 2019, 5, 480-485.	4.7	210
35	Construction of a Genome-Wide Mutant Library in Rice Using CRISPR/Cas9. <i>Molecular Plant</i> , 2017, 10, 1238-1241.	3.9	208
36	The future of CRISPR technologies in agriculture. <i>Nature Reviews Molecular Cell Biology</i> , 2018, 19, 275-276.	16.1	199

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37	High-efficiency prime editing with optimized, paired pegRNAs in plants. <i>Nature Biotechnology</i> , 2021, 39, 923-927.	9.4	189
38	Genome-edited powdery mildew resistance in wheat without growth penalties. <i>Nature</i> , 2022, 602, 455-460.	13.7	181
39	Genome editing of bread wheat using biolistic delivery of CRISPR/Cas9 in vitro transcripts or ribonucleoproteins. <i>Nature Protocols</i> , 2018, 13, 413-430.	5.5	179
40	Targeted genome modification technologies and their applications in crop improvements. <i>Plant Cell Reports</i> , 2014, 33, 575-583.	2.8	158
41	Prime editing efficiently generates W542L and S621I double mutations in two ALS genes in maize. <i>Genome Biology</i> , 2020, 21, 257.	3.8	153
42	The CRISPR-Cas toolbox and gene editing technologies. <i>Molecular Cell</i> , 2022, 82, 333-347.	4.5	151
43	A CRISPR way for accelerating improvement of food crops. <i>Nature Food</i> , 2020, 1, 200-205.	6.2	125
44	Current and future editing reagent delivery systems for plant genome editing. <i>Science China Life Sciences</i> , 2017, 60, 490-505.	2.3	124
45	Generation of thermosensitive male-sterile maize by targeted knockout of the ZmTMS5 gene. <i>Journal of Genetics and Genomics</i> , 2017, 44, 465-468.	1.7	122
46	Perfectly matched 20-nucleotide guide RNA sequences enable robust genome editing using high-fidelity SpCas9 nucleases. <i>Genome Biology</i> , 2017, 18, 191.	3.8	111
47	O-GlcNAc-mediated interaction between VER2 and TaGRP2 elicits TaVRN1 mRNA accumulation during vernalization in winter wheat. <i>Nature Communications</i> , 2014, 5, 4572.	5.8	108
48	A "new lease of life": FnCpf1 possesses DNA cleavage activity for genome editing in human cells. <i>Nucleic Acids Research</i> , 2017, 45, 11295-11304.	6.5	108
49	Rationally Designed APOBEC3B Cytosine Base Editors with Improved Specificity. <i>Molecular Cell</i> , 2020, 79, 728-740.e6.	4.5	104
50	Targeted mutagenesis in wheat microspores using CRISPR/Cas9. <i>Scientific Reports</i> , 2018, 8, 6502.	1.6	98
51	Fine-tuning sugar content in strawberry. <i>Genome Biology</i> , 2020, 21, 230.	3.8	97
52	TALENs: Customizable Molecular DNA Scissors for Genome Engineering of Plants. <i>Journal of Genetics and Genomics</i> , 2013, 40, 271-279.	1.7	95
53	Fine-tuning the amylose content of rice by precise base editing of the <i>Wx</i> gene. <i>Plant Biotechnology Journal</i> , 2021, 19, 11-13.	4.1	95
54	Transcriptome Association Identifies Regulators of Wheat Spike Architecture. <i>Plant Physiology</i> , 2017, 175, 746-757.	2.3	94

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55	An engineered prime editor with enhanced editing efficiency in plants. <i>Nature Biotechnology</i> , 2022, 40, 1394-1402.	9.4	89
56	Highly efficient heritable genome editing in wheat using an RNA virus and bypassing tissue culture. <i>Molecular Plant</i> , 2021, 14, 1787-1798.	3.9	85
57	Genome-wide specificity of prime editors in plants. <i>Nature Biotechnology</i> , 2021, 39, 1292-1299.	9.4	80
58	Modulating chromatin accessibility by transactivation and targeting proximal dsRNAs enhances Cas9 editing efficiency in vivo. <i>Genome Biology</i> , 2019, 20, 145.	3.8	75
59	KTN80 confers precision to microtubule severing by specific targeting of katanin complexes in plant cells. <i>EMBO Journal</i> , 2017, 36, 3435-3447.	3.5	66
60	Roadmap for Accelerated Domestication of an Emerging Perennial Grain Crop. <i>Trends in Plant Science</i> , 2020, 25, 525-537.	4.3	65
61	From Genetic Stock to Genome Editing: Gene Exploitation in Wheat. <i>Trends in Biotechnology</i> , 2018, 36, 160-172.	4.9	63
62	Genotyping genome-edited mutations in plants using CRISPR ribonucleoprotein complexes. <i>Plant Biotechnology Journal</i> , 2018, 16, 2053-2062.	4.1	62
63	Conferring DNA virus resistance with high specificity in plants using virus-inducible genome-editing system. <i>Genome Biology</i> , 2018, 19, 197.	3.8	59
64	A chromatin loop represses <i>WUSCHEL</i> expression in Arabidopsis. <i>Plant Journal</i> , 2018, 94, 1083-1097.	2.8	53
65	An Unconventional CCCH-Tandem Zinc-Finger Protein Represses Secondary Wall Synthesis and Controls Mechanical Strength in Rice. <i>Molecular Plant</i> , 2018, 11, 163-174.	3.9	51
66	Manipulating mRNA splicing by base editing in plants. <i>Science China Life Sciences</i> , 2018, 61, 1293-1300.	2.3	50
67	Generating broad-spectrum tolerance to ALS-inhibiting herbicides in rice by base editing. <i>Science China Life Sciences</i> , 2021, 64, 1624-1633.	2.3	49
68	Precise, predictable multi-nucleotide deletions in rice and wheat using APOBEC-Cas9. <i>Nature Biotechnology</i> , 2020, 38, 1460-1465.	9.4	49
69	Prospects for the accelerated improvement of the resilient crop quinoa. <i>Journal of Experimental Botany</i> , 2020, 71, 5333-5347.	2.4	49
70	Robust genome editing of CRISPR-Cas9 at NAG PAMs in rice. <i>Science China Life Sciences</i> , 2018, 61, 122-125.	2.3	48
71	Manipulating gene translation in plants by CRISPR-Cas9-mediated genome editing of upstream open reading frames. <i>Nature Protocols</i> , 2020, 15, 338-363.	5.5	48
72	MicroRNA393 is involved in nitrogen-promoted rice tillering through regulation of auxin signal transduction in axillary buds. <i>Scientific Reports</i> , 2016, 6, 32158.	1.6	44

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73	The vernalization-induced long non-coding RNA VAS functions with the transcription factor TaRF2b to promote TaVRN1 expression for flowering in hexaploid wheat. <i>Molecular Plant</i> , 2021, 14, 1525-1538.	3.9	42
74	Comparative analysis of transgenic tall fescue (<i>Festuca arundinacea</i> Schreb.) plants obtained by <i>Agrobacterium</i> -mediated transformation and particle bombardment. <i>Plant Cell Reports</i> , 2008, 27, 1601-1609.	2.8	41
75	SWISS: multiplexed orthogonal genome editing in plants with a Cas9 nickase and engineered CRISPR RNA scaffolds. <i>Genome Biology</i> , 2020, 21, 141.	3.8	38
76	High-fidelity SaCas9 identified by directional screening in human cells. <i>PLoS Biology</i> , 2020, 18, e3000747.	2.6	38
77	Transcriptional repression of <i>TaNOX10</i> by TaWRKY19 compromises ROS generation and enhances wheat susceptibility to stripe rust. <i>Plant Cell</i> , 2022, 34, 1784-1803.	3.1	37
78	Transient expression of a TaGRF4-TaGIF1 complex stimulates wheat regeneration and improves genome editing. <i>Science China Life Sciences</i> , 2022, 65, 731-738.	2.3	32
79	Genome editing in crops: from bench to field. <i>National Science Review</i> , 2015, 2, 13-15.	4.6	31
80	Generation of large numbers of transgenic Kentucky bluegrass (<i>Poa pratensis</i> L.) plants following biolistic gene transfer. <i>Plant Cell Reports</i> , 2006, 25, 19-25.	2.8	25
81	Targeted mutagenesis in ryegrass (<i>Lolium</i> spp.) using the CRISPR/Cas9 system. <i>Plant Biotechnology Journal</i> , 2020, 18, 1854-1856.	4.1	25
82	Genome editing in plants with MAD7 nuclease. <i>Journal of Genetics and Genomics</i> , 2021, 48, 444-451.	1.7	25
83	Comparison Between <i>Agrobacterium</i> -Mediated and Direct Gene Transfer Using the Gene Gun. <i>Methods in Molecular Biology</i> , 2013, 940, 3-16.	0.4	24
84	An efficient TALEN mutagenesis system in rice. <i>Methods</i> , 2014, 69, 2-8.	1.9	23
85	Biolistic Genetic Transformation of a Wide Range of Chinese Elite Wheat (<i>Triticum aestivum</i> L.) Varieties. <i>Journal of Genetics and Genomics</i> , 2015, 42, 39-42.	1.7	23
86	Boosting activity of high-fidelity CRISPR/Cas9 variants using a tRNAGln-processing system in human cells. <i>Journal of Biological Chemistry</i> , 2019, 294, 9308-9315.	1.6	23
87	Biolistic Delivery of CRISPR/Cas9 with Ribonucleoprotein Complex in Wheat. <i>Methods in Molecular Biology</i> , 2019, 1917, 327-335.	0.4	23
88	Identification and characterization of <i>Sr22b</i> , a new allele of the wheat stem rust resistance gene <i>Sr22</i> effective against the Ug99 race group. <i>Plant Biotechnology Journal</i> , 2022, 20, 554-563.	4.1	17
89	Genetic manipulations of TaARE1 boost nitrogen utilization and grain yield in wheat. <i>Journal of Genetics and Genomics</i> , 2021, 48, 950-953.	1.7	16
90	Accelerated Domestication of New Crops: Yield is Key. <i>Plant and Cell Physiology</i> , 2022, 63, 1624-1640.	1.5	16

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91	Development and characterization of marker-free and transgene insertion site-defined transgenic wheat with improved grain storability and fatty acid content. <i>Plant Biotechnology Journal</i> , 2020, 18, 129-140.	4.1	15
92	The MYB family transcription factor TuODORANT1 from <i>Triticum urartu</i> and the homolog TaODORANT1 from <i>Triticum aestivum</i> inhibit seed storage protein synthesis in wheat. <i>Plant Biotechnology Journal</i> , 2021, 19, 1863-1877.	4.1	15
93	Wheat AGAMOUS LIKE 6 transcription factors function in stamen development by regulating the expression of Ta APETALA3. <i>Development (Cambridge)</i> , 2019, 146, .	1.2	14
94	Genome-edited crops: how to move them from laboratory to market. <i>Frontiers of Agricultural Science and Engineering</i> , 2020, 7, 181.	0.9	14
95	CRISPR editing-mediated antiviral immunity: a versatile source of resistance to combat plant virus infections. <i>Science China Life Sciences</i> , 2019, 62, 1246-1249.	2.3	13
96	Precision plant breeding using genome editing technologies. <i>Transgenic Research</i> , 2019, 28, 53-55.	1.3	12
97	Generation of Stable Transgenic Rice (<i>Oryza sativa</i> L.) by <i>Agrobacterium</i> -Mediated Transformation. <i>Current Protocols in Plant Biology</i> , 2016, 1, 235-246.	2.8	11
98	An unbiased method for evaluating the genome-wide specificity of base editors in rice. <i>Nature Protocols</i> , 2021, 16, 431-457.	5.5	11
99	<i>Agrobacterium</i> -mediated transformation of meadow fescue (<i>Festuca pratensis</i> Huds.). <i>Plant Cell Reports</i> , 2009, 28, 1431-1437.	2.8	10
100	The CRISPR/Cas9 Genome Editing Revolution. <i>Journal of Genetics and Genomics</i> , 2016, 43, 227-228.	1.7	10
101	Shortening the sgRNA-DNA interface enables SpCas9 and eSpCas9(1.1) to nick the target DNA strand. <i>Science China Life Sciences</i> , 2020, 63, 1619-1630.	2.3	10
102	An Efficient Targeted Mutagenesis System Using CRISPR/Cas in Monocotyledons. <i>Current Protocols in Plant Biology</i> , 2016, 1, 329-344.	2.8	9
103	Genome-wide identification of seed storage protein gene regulators in wheat through coexpression analysis. <i>Plant Journal</i> , 2021, 108, 1704-1720.	2.8	9
104	Recent advances in DNA-free editing and precise base editing in plants. <i>Emerging Topics in Life Sciences</i> , 2017, 1, 161-168.	1.1	8
105	Targeted Mutagenesis in Hexaploid Bread Wheat Using the TALEN and CRISPR/Cas Systems. <i>Methods in Molecular Biology</i> , 2017, 1679, 169-185.	0.4	7
106	Comparison of three selectable marker genes for transformation of tall fescue (<i>Festuca arundinacea</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 658-666.	0.9	5
107	Developing CRISPR Technology in Major Crop Plants. , 2015, , 145-159.		5
108	Anything impossible with CRISPR/Cas9?. <i>Science China Life Sciences</i> , 2017, 60, 445-446.	2.3	5

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109	The florigen interactor BdES43 represses flowering in the model temperate grass <i>Brachypodium distachyon</i> . <i>Plant Journal</i> , 2020, 102, 262-275.	2.8	5
110	Gene Replacement by Intron Targeting with CRISPR-Cas9. <i>Methods in Molecular Biology</i> , 2019, 1917, 285-296.	0.4	4
111	Plant genome engineering from lab to field—a Keystone Symposia report. <i>Annals of the New York Academy of Sciences</i> , 2021, 1506, 35-54.	1.8	4
112	Protoplast Isolation and Transfection in Wheat. <i>Methods in Molecular Biology</i> , 2022, 2464, 131-141.	0.4	3
113	Gene editing: from technologies to applications in research and beyond. <i>Science China Life Sciences</i> , 2022, 65, 657-659.	2.3	3
114	Preface to the special topic on genome editing research in China. <i>National Science Review</i> , 2019, 6, 389-390.	4.6	2
115	CRISPR Adventures in China. <i>CRISPR Journal</i> , 2021, 4, 304-306.	1.4	0