Magdy M Mahfouz

List of Publications by Year
in descending order

88 papers	8,820 citations	53794 45 h-index	49909 87 g-index
98 all docs	98 docs citations	98 times ranked	8786 citing authors

#	Article	IF	Citations
1	CS-Cells: A CRISPR-Cas12 DNA Device to Generate Chromosome-Shredded Cells for Efficient and Safe Molecular Biomanufacturing. ACS Synthetic Biology, 2022, 11, 430-440.	3.8	1
2	Microbial Biocontainment Systems for Clinical, Agricultural, and Industrial Applications. Frontiers in Bioengineering and Biotechnology, 2022, 10, 830200.	4.1	9
3	DNAâ€“Carbon Nanotube Binding Mode Determines the Efficiency of Carbon Nanotube-Mediated DNA Delivery to Intact Plants. ACS Applied Nano Materials, 2022, 5, 4663-4676.	5.0	16
4	Development of Cas12a-Based Cell-Free Small-Molecule Biosensors via Allosteric Regulation of CRISPR Array Expression. Analytical Chemistry, 2022, 94, 4617-4626.	6.5	25
5	Bio-SCAN: A CRISPR/dCas9-Based Lateral Flow Assay for Rapid, Specific, and Sensitive Detection of SARS-CoV-2. ACS Synthetic Biology, 2022, 11, 406-419.	3.8	48
6	The Rice Serine/Arginine Splicing Factor RS33 Regulates Pre-mRNA Splicing during Abiotic Stress Responses. Cells, 2022, 11, 1796.	4.1	14
7	Characterization of a thermostable Cas13 enzyme for one-pot detection of SARS-CoV-2. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	33
8	Onsite detection of plant viruses using isothermal amplification assays. Plant Biotechnology Journal, 2022, 20, 1859-1873.	8.3	25
9	LAMP-Coupled CRISPRâ€“Cas12a Module for Rapid and Sensitive Detection of Plant DNA Viruses. Viruses, 2021, 13, 466.	3.3	62
10	Chemical activation of Arabidopsis SnRK2.6 by pladienolide B. Plant Signaling and Behavior, 2021, 16, 1885165.	2.4	1
11	Vigilant: An Engineered VirD2-Cas9 Complex for Lateral Flow Assay-Based Detection of SARS-CoV2. Nano Letters, 2021, 21, 3596-3603.	9.1	52
12	CRISPR/Cas systems versus plant viruses: engineering plant immunity and beyond. Plant Physiology, 2021, 186, 1770-1785.	4.8	13
13	Overlapping roles of spliceosomal components SF3B1 and PHF5A in rice splicing regulation. Communications Biology, 2021, 4, 529.	4.4	8
14	Polycomb-dependent differential chromatin compartmentalization determines gene coregulation in <i>Arabidopsis</i>. Genome Research, 2021, 31, 1230-1244.	5.5	36
15	Pre-mRNA alternative splicing as a modulator for heat stress response in plants. Trends in Plant Science, 2021, 26, 1153-1170.	8.8	52
16	CRISPR-Based Crop Improvements: A Way Forward to Achieve Zero Hunger. Journal of Agricultural and Food Chemistry, 2021, 69, 8307-8323.	5.2	50
17	Plant genome engineering from lab to fieldâ€"a Keystone Symposia report. Annals of the New York Academy of Sciences, 2021, 1506, 35-54.	3.8	4
18	A Novel Miniature CRISPR-Cas13 System for SARS-CoV-2 Diagnostics. ACS Synthetic Biology, 2021, 10, 2541-2551.	3.8	34

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19	Synthetic directed evolution in plants: unlocking trait engineering and improvement. Synthetic Biology, 2021, 6, ysab025.	2.2	13
20	iSCAN-V2: A One-Pot RT-RPAâ€"CRISPR/Cas12b Assay for Point-of-Care SARS-CoV-2 Detection. Frontiers in Bioengineering and Biotechnology, 2021, 9, 800104.	4.1	24
21	CRISPR-Based Directed Evolution for Crop Improvement. Trends in Biotechnology, 2020, 38, 236-240.	9.3	34
22	CRISPR-TSKO: A Tool for Tissue-Specific Genome Editing in Plants. Trends in Plant Science, 2020, 25, 123-126.	8.8	19
23	iSCAN: An RT-LAMP-coupled CRISPR-Cas12 module for rapid, sensitive detection of SARS-CoV-2. Virus Research, 2020, 288, 198129.	2.2	226
24	Engineering crops of the future: CRISPR approaches to develop climate-resilient and disease-resistant plants. Genome Biology, 2020, 21, 289.	8.8	102
25	CRISPR/Cas9 Mutagenesis by Translocation of Cas9 Protein Into Plant Cells via the Agrobacterium Type IV Secretion System. Frontiers in Genome Editing, 2020, 2, 6.	5.2	14
26	Engineering herbicide resistance via prime editing in rice. Plant Biotechnology Journal, 2020, 18, 2370-2372.	8.3	142
27	GCN5 modulates salicylic acid homeostasis by regulating H3K14ac levels at the 5â€² and 3â€² ends of its target genes. Nucleic Acids Research, 2020, 48, 5953-5966.	14.5	44
28	Genome Editing Technologies for Rice Improvement: Progress, Prospects, and Safety Concerns. Frontiers in Genome Editing, 2020, 2, 5.	5.2	51
29	Nucleic Acid Detection Using CRISPR/Cas Biosensing Technologies. ACS Synthetic Biology, 2020, 9, 1226-1233.	3.8	226
30	Fusion of the Cas9 endonuclease and the VirD2 relaxase facilitates homology-directed repair for precise genome engineering in rice. Communications Biology, 2020, 3, 44.	4.4	91
31	Wheat chromatin architecture is organized in genome territories and transcription factories. Genome Biology, 2020, 21, 104.	8.8	99
32	Efficient, Rapid, and Sensitive Detection of Plant RNA Viruses With One-Pot RT-RPAâ€"CRISPR/Cas12a Assay. Frontiers in Microbiology, 2020, 11, 610872.	3.5	94
33	Multiplex CRISPR Mutagenesis of the Serine/Arginine-Rich (SR) Gene Family in Rice. Genes, 2019, 10, 596.	2.4	23
34	Thermopriming reprograms metabolic homeostasis to confer heat tolerance. Scientific Reports, 2019, 9, 181.	3.3	67
35	A Simplified Method to Engineer CRISPR/Cas9-Mediated Geminivirus Resistance in Plants. Methods in Molecular Biology, 2019, 2028, 167-183.	0.9	5
36	CRISPR directed evolution of the spliceosome for resistance to splicing inhibitors. Genome Biology, 2019, 20, 73.	8.8	99

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37	Plant Genome Engineering for Targeted Improvement of Crop Traits. Frontiers in Plant Science, 2019, 10, 114.	3.6	149
38	New plant breeding technologies for food security. Science, 2019, 363, 1390-1391.	12.6	125
39	Serine/Arginine-rich protein family of splicing regulators: New approaches to study splice isoform functions. Plant Science, 2019, 283, 127-134.	3.6	27
40	CRISPR-Cas13d mediates robust RNA virus interference in plants. Genome Biology, 2019, 20, 263.	8.8	124
41	Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. Methods in Molecular Biology, 2019, 1917, 311-326.	0.9	16
42	Thermopriming triggers splicing memory in Arabidopsis. Journal of Experimental Botany, 2018, 69, 2659-2675.	4.8	119
43	CRISPR/Cas13 as a Tool for RNA Interference. Trends in Plant Science, 2018, 23, 374-378.	8.8	64
44	Pea early-browning virus-mediated genome editing via the CRISPR/Cas9 system in Nicotiana benthamiana and Arabidopsis. Virus Research, 2018, 244, 333-337.	2.2	102
45	Harnessing CRISPR/Cas systems for programmable transcriptional and post-transcriptional regulation. Biotechnology Advances, 2018, 36, 295-310.	11.7	87
46	Engineering RNA Virus Interference via the CRISPR/Cas13 Machinery in Arabidopsis. Viruses, 2018, 10, 732.	3.3	75
47	Engineering resistance against <i>Tomato yellow leaf curl virus</i> via the CRISPR/Cas9 system in tomato. Plant Signaling and Behavior, 2018, 13, e1525996.	2.4	161
48	Engineering plant architecture via CRISPR/Cas9-mediated alteration of strigolactone biosynthesis. BMC Plant Biology, 2018, 18, 174.	3.6	106
49	Engineering virus resistance via CRISPRâ€–Cas systems. Current Opinion in Virology, 2018, 32, 1-8.	5.4	53
50	RNA virus interference via CRISPR/Cas13a system in plants. Genome Biology, 2018, 19, 1.	8.8	1,148
51	CRISPR base editors: genome editing without double-stranded breaks. Biochemical Journal, 2018, 475, 1955-1964.	3.7	177
52	Targeted genome regulation via synthetic programmable transcriptional regulators. Critical Reviews in Biotechnology, 2017, 37, 429-440.	9.0	22
53	Genome editing: The efficient tool CRISPRâ€–Cpf1. Nature Plants, 2017, 3, 17028.	9.3	29
54	CRISPR-Cpf1: A New Tool for Plant Genome Editing. Trends in Plant Science, 2017, 22, 550-553.	8.8	124

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55	Engineering Molecular Immunity Against Plant Viruses. Progress in Molecular Biology and Translational Science, 2017, 149, 167-186.	1.7	12
56	Herboxidiene triggers splicing repression and abiotic stress responses in plants. BMC Genomics, 2017, 18, 260.	2.8	31
57	The Arabidopsis SWI/SNF protein BAF60 mediates seedling growth control by modulating DNA accessibility. Genome Biology, 2017, 18, 114.	8.8	53
58	Preâ€<scp>mRNA</scp> splicing repression triggers abiotic stress signaling in plants. Plant Journal, 2017, 89, 291-309.	5.7	68
59	Efficient CRISPR/Cas9-Mediated Genome Editing Using a Chimeric Single-Guide RNA Molecule. Frontiers in Plant Science, 2017, 8, 1441.	3.6	107
60	Engineering Plant Immunity: Using CRISPR/Cas9 to Generate Virus Resistance. Frontiers in Plant Science, 2016, 7, 1673.	3.6	141
61	High efficiency of targeted mutagenesis in arabidopsis via meiotic promoter-driven expression of Cas9 endonuclease. Plant Cell Reports, 2016, 35, 1555-1558.	5.6	51
62	CRISPR/Cas9-mediated target validation of the splicing inhibitor Pladienolide B. Biochimie Open, 2016, 3, 72-75.	3.2	11
63	Genome editing: the road of CRISPR/Cas9 from bench to clinic. Experimental and Molecular Medicine, 2016, 48, e265-e265.	7.7	74
64	CRISPR/Cas9-Mediated Immunity to Geminiviruses: Differential Interference and Evasion. Scientific Reports, 2016, 6, 26912.	3.3	189
65	Next-generation precision genome engineering and plant biotechnology. Plant Cell Reports, 2016, 35, 1397-1399.	5.6	19
66	Engineering Plants for Geminivirus Resistance with CRISPR/Cas9 System. Trends in Plant Science, 2016, 21, 279-281.	8.8	59
67	Activity and specificity of TRV-mediated gene editing in plants. Plant Signaling and Behavior, 2015, 10, e1044191.	2.4	59
68	Transcription activator-like effector nucleases mediated metabolic engineering for enhanced fatty acids production in Saccharomyces cerevisiae. Journal of Bioscience and Bioengineering, 2015, 120, 364-371.	2.2	23
69	Efficient Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. Molecular Plant, 2015, 8, 1288-1291.	8.3	255
70	CRISPR/Cas9-mediated viral interference in plants. Genome Biology, 2015, 16, 238.	8.8	406
71	RNAâ€guided transcriptional regulation <i>in planta</i> via synthetic <scp>dC</scp>as9â€based transcription factors. Plant Biotechnology Journal, 2015, 13, 578-589.	8.3	308
72	Efficient fdCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. PLoS ONE, 2015, 10, e0133373.	2.5	46

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73	Detection of a Usp-like gene in Calotropis procera plant from the de novo assembled genome contigs of the high-throughput sequencing dataset. Comptes Rendus - Biologies, 2014, 337, 86-94.	0.2	15
74	Activities and specificities of homodimeric TALENs in SaccharomycesÂcerevisiae. Current Genetics, 2014, 60, 61-74.	1.7	39
75	Genome engineering via TALENs and CRISPR/Cas9 systems: challenges and perspectives. Plant Biotechnology Journal, 2014, 12, 1006-1014.	8.3	110
76	Characterization and DNA-Binding Specificities of Ralstonia TAL-Like Effectors. Molecular Plant, 2013, 6, 1318-1330.	8.3	53
77	Structural Basis for Sequence-Specific Recognition of DNA by TAL Effectors. Science, 2012, 335, 720-723.	12.6	528
78	Recognition of methylated DNA by TAL effectors. Cell Research, 2012, 22, 1502-1504.	12.0	113
79	Targeted transcriptional repression using a chimeric TALE-SRDX repressor protein. Plant Molecular Biology, 2012, 78, 311-321.	3.9	136
80	Rapid and highly efficient construction of TALE-based transcriptional regulators and nucleases for genome modification. Plant Molecular Biology, 2012, 78, 407-416.	3.9	103
81	De novo-engineered transcription activator-like effector (TALE) hybrid nuclease with novel DNA binding specificity creates double-strand breaks. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2623-2628.	7.1	388
82	TALE nucleases and next generation GM crops. GM Crops, 2011, 2, 99-103.	1.9	46
83	RNA-directed DNA methylation. Plant Signaling and Behavior, 2010, 5, 806-816.	2.4	34
84	The Anticancer Activity of the N-Terminal CARD-Like Domain of Arginine Deiminase (ADI) from Pseudomonas aeruginosa. Letters in Drug Design and Discovery, 2009, 6, 403-412.	0.7	5
85	Cupredoxinâ˘Cancer Interrelationship:â€‰ Azurin Binding with EphB2, Interference in EphB2 Tyrosine Phosphorylation, and Inhibition of Cancer Growth. Biochemistry, 2007, 46, 1799-1810.	2.5	68
86	Bacterial proteins and CpG-rich extrachromosomal DNA in potential cancer therapy. Plasmid, 2007, 57, 4-17.	1.4	25
87	Arabidopsis TARGET OF RAPAMYCIN Interacts with RAPTOR, Which Regulates the Activity of S6 Kinase in Response to Osmotic Stress Signals. Plant Cell, 2006, 18, 477-490.	6.6	327
88	Callose synthase (CalS5) is required for exine formation during microgametogenesis and for pollen viability in Arabidopsis. Plant Journal, 2005, 42, 315-328.	5.7	333