

Holger Puchta

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172
papers

9,436
citations

57
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92
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183
ext. papers

10,867
ext. citations

8.6
avg, IF

7.02
L-index

#	Paper	IF	Citations
172	Both CRISPR/Cas-based nucleases and nickases can be used efficiently for genome engineering in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2014 , 79, 348-59	6.9	475
171	The repair of double-strand breaks in plants: mechanisms and consequences for genome evolution. <i>Journal of Experimental Botany</i> , 2005 , 56, 1-14	7	360
170	Two different but related mechanisms are used in plants for the repair of genomic double-strand breaks by homologous recombination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996 , 93, 5055-60	11.5	317
169	Elevated UV-B radiation reduces genome stability in plants. <i>Nature</i> , 2000 , 406, 98-101	50.4	313
168	Capture of genomic and T-DNA sequences during double-strand break repair in somatic plant cells. <i>EMBO Journal</i> , 1998 , 17, 6086-95	13	283
167	The CRISPR/Cas system can be used as nuclease for in planta gene targeting and as paired nickases for directed mutagenesis in <i>Arabidopsis</i> resulting in heritable progeny. <i>Plant Journal</i> , 2014 , 80, 1139-50	6.9	258
166	Homologous recombination in plant cells is enhanced by in vivo induction of double strand breaks into DNA by a site-specific endonuclease. <i>Nucleic Acids Research</i> , 1993 , 21, 5034-40	20.1	227
165	Applying CRISPR/Cas for genome engineering in plants: the best is yet to come. <i>Current Opinion in Plant Biology</i> , 2017 , 36, 1-8	9.9	201
164	Synthetic nucleases for genome engineering in plants: prospects for a bright future. <i>Plant Journal</i> , 2014 , 78, 727-41	6.9	181
163	Highly efficient heritable plant genome engineering using Cas9 orthologues from <i>Streptococcus thermophilus</i> and <i>Staphylococcus aureus</i> . <i>Plant Journal</i> , 2015 , 84, 1295-305	6.9	177
162	BRCC36A is epistatic to BRCA1 in DNA crosslink repair and homologous recombination in <i>Arabidopsis thaliana</i> . <i>Nucleic Acids Research</i> , 2011 , 39, 146-54	20.1	170
161	Towards CRISPR/Cas crops - bringing together genomics and genome editing. <i>New Phytologist</i> , 2017 , 216, 682-698	9.8	165
160	Species-specific double-strand break repair and genome evolution in plants. <i>EMBO Journal</i> , 2000 , 19, 5562-6	13	157
159	In planta gene targeting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 7535-40	11.5	155
158	Efficient repair of genomic double-strand breaks by homologous recombination between directly repeated sequences in the plant genome. <i>Plant Cell</i> , 2002 , 14, 1121-31	11.6	132
157	Gene targeting in plants: 25 years later. <i>International Journal of Developmental Biology</i> , 2013 , 57, 629-37	1.9	126
156	From centiMorgans to base pairs: homologous recombination in plants. <i>Trends in Plant Science</i> , 1996 , 1, 340-348	13.1	122

155	Intrachromosomal homologous recombination in whole plants.. <i>EMBO Journal</i> , 1994 , 13, 484-489	13	122
154	Elimination of selection markers from transgenic plants. <i>Current Opinion in Biotechnology</i> , 2001 , 12, 139-144	13.4	119
153	<i>Agrobacterium tumefaciens</i> transfers single-stranded transferred DNA (T-DNA) into the plant cell nucleus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 8000-4	11.5	119
152	Two closely related RecQ helicases have antagonistic roles in homologous recombination and DNA repair in <i>Arabidopsis thaliana</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18836-41	11.5	115
151	Revolutionizing plant biology: multiple ways of genome engineering by CRISPR/Cas. <i>Plant Methods</i> , 2016 , 12, 8	5.8	103
150	Induction of intrachromosomal homologous recombination in whole plants. <i>Plant Journal</i> , 1995 , 7, 203-210	11.0	102
149	Repair of genomic double-strand breaks in somatic plant cells by one-sided invasion of homologous sequences. <i>Plant Journal</i> , 1998 , 13, 331-339	6.9	100
148	Molecular characterisation of two paralogous SPO11 homologues in <i>Arabidopsis thaliana</i> . <i>Nucleic Acids Research</i> , 2000 , 28, 1548-54	20.1	97
147	The catalytically active tyrosine residues of both SPO11-1 and SPO11-2 are required for meiotic double-strand break induction in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2007 , 19, 3090-9	11.6	95
146	An archaeobacterial topoisomerase homolog not present in other eukaryotes is indispensable for cell proliferation of plants. <i>Current Biology</i> , 2002 , 12, 1787-91	6.3	92
145	Molecular characterization of homologues of both subunits A (SPO11) and B of the archaeobacterial topoisomerase 6 in plants. <i>Gene</i> , 2001 , 271, 81-6	3.8	86
144	The transcriptional response of <i>Arabidopsis</i> to genotoxic stress - a high-density colony array study (HDCA). <i>Plant Journal</i> , 2003 , 35, 771-86	6.9	84
143	The role of AtMUS81 in DNA repair and its genetic interaction with the helicase AtRecQ4A. <i>Nucleic Acids Research</i> , 2006 , 34, 4438-48	20.1	83
142	Different pathways of homologous recombination are used for the repair of double-strand breaks within tandemly arranged sequences in the plant genome. <i>Plant Journal</i> , 2003 , 35, 604-12	6.9	83
141	Plant breeding at the speed of light: the power of CRISPR/Cas to generate directed genetic diversity at multiple sites. <i>BMC Plant Biology</i> , 2019 , 19, 176	5.3	82
140	Efficient in planta gene targeting in <i>Arabidopsis</i> using egg cell-specific expression of the Cas9 nuclease of <i>Staphylococcus aureus</i> . <i>Plant Journal</i> , 2018 , 94, 735-746	6.9	82
139	Live-cell CRISPR imaging in plants reveals dynamic telomere movements. <i>Plant Journal</i> , 2017 , 91, 565-578	5.9	81
138	CRISPR/Cas-mediated gene targeting in plants: finally a turn for the better for homologous recombination. <i>Plant Cell Reports</i> , 2019 , 38, 443-453	5.1	79

137	A homologue of the breast cancer-associated gene BARD1 is involved in DNA repair in plants. <i>EMBO Journal</i> , 2007 , 26, 2227-2227	13	78
136	The Fanconi anemia ortholog FANCM ensures ordered homologous recombination in both somatic and meiotic cells in Arabidopsis. <i>Plant Cell</i> , 2012 , 24, 1448-64	11.6	77
135	RAD5A, RECQ4A, and MUS81 have specific functions in homologous recombination and define different pathways of DNA repair in Arabidopsis thaliana. <i>Plant Cell</i> , 2010 , 22, 3318-30	11.6	77
134	The STRUCTURAL MAINTENANCE OF CHROMOSOMES 5/6 complex promotes sister chromatid alignment and homologous recombination after DNA damage in Arabidopsis thaliana. <i>Plant Cell</i> , 2009 , 21, 2688-99	11.6	77
133	Gene replacement by homologous recombination in plants. <i>Plant Molecular Biology</i> , 2002 , 48, 173-182	4.6	77
132	Double-strand break-induced recombination between ectopic homologous sequences in somatic plant cells. <i>Genetics</i> , 1999 , 152, 1173-81	4	77
131	DNA recombination in somatic plant cells: mechanisms and evolutionary consequences. <i>Chromosome Research</i> , 2014 , 22, 191-201	4.4	72
130	Using CRISPR/Cas in three dimensions: towards synthetic plant genomes, transcriptomes and epigenomes. <i>Plant Journal</i> , 2016 , 87, 5-15	6.9	71
129	Topoisomerase 3alpha and RMI1 suppress somatic crossovers and are essential for resolution of meiotic recombination intermediates in Arabidopsis thaliana. <i>PLoS Genetics</i> , 2008 , 4, e1000285	6	70
128	Homology-based double-strand break-induced genome engineering in plants. <i>Plant Cell Reports</i> , 2016 , 35, 1429-38	5.1	70
127	Somatic intrachromosomal homologous recombination events in populations of plant siblings. <i>Plant Molecular Biology</i> , 1995 , 28, 281-92	4.6	68
126	Effects of nanosecond pulsed electric field exposure on Arabidopsis thaliana. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2009 , 16, 1322-1328	2.3	67
125	The Rad17 homologue of Arabidopsis is involved in the regulation of DNA damage repair and homologous recombination. <i>Plant Journal</i> , 2004 , 38, 954-68	6.9	67
124	The molecular structure of hop latent viroid (HLV), a new viroid occurring worldwide in hops. <i>Nucleic Acids Research</i> , 1988 , 16, 4197-216	20.1	67
123	The CRISPR/Cas revolution continues: From efficient gene editing for crop breeding to plant synthetic biology. <i>Journal of Integrative Plant Biology</i> , 2018 , 60, 1127-1153	8.3	66
122	Molecular characterisation of RecQ homologues in Arabidopsis thaliana. <i>Nucleic Acids Research</i> , 2000 , 28, 4275-82	20.1	64
121	CRISPR/Cas brings plant biology and breeding into the fast lane. <i>Current Opinion in Biotechnology</i> , 2020 , 61, 7-14	11.4	64
120	Marker-free transgenic plants. <i>Plant Cell, Tissue and Organ Culture</i> , 2003 , 74, 123-134	2.7	62

119	The CRISPR/Cas revolution reaches the RNA world: Cas13, a new Swiss Army knife for plant biologists. <i>Plant Journal</i> , 2018 , 94, 767-775	6.9	61
118	The RecQ gene family in plants. <i>Journal of Plant Physiology</i> , 2006 , 163, 287-96	3.6	59
117	The role of DNA helicases and their interaction partners in genome stability and meiotic recombination in plants. <i>Journal of Experimental Botany</i> , 2011 , 62, 1565-79	7	56
116	Engineering CRISPR/LbCas12a for highly efficient, temperature-tolerant plant gene editing. <i>Plant Biotechnology Journal</i> , 2020 , 18, 1118-1120	11.6	55
115	The requirement for recombination factors differs considerably between different pathways of homologous double-strand break repair in somatic plant cells. <i>Plant Journal</i> , 2012 , 72, 781-90	6.9	53
114	Two unlinked double-strand breaks can induce reciprocal exchanges in plant genomes via homologous recombination and nonhomologous end joining. <i>Genetics</i> , 2007 , 175, 21-9	4	53
113	A transient assay in plant cells reveals a positive correlation between extrachromosomal recombination rates and length of homologous overlap. <i>Nucleic Acids Research</i> , 1991 , 19, 2693-700	20.1	53
112	CRISPR-Cas9-mediated induction of heritable chromosomal translocations in Arabidopsis. <i>Nature Plants</i> , 2020 , 6, 638-645	11.5	53
111	Efficient induction of heritable inversions in plant genomes using the CRISPR/Cas system. <i>Plant Journal</i> , 2019 , 98, 577-589	6.9	50
110	Transforming plant biology and breeding with CRISPR/Cas9, Cas12 and Cas13. <i>FEBS Letters</i> , 2018 , 592, 1954-1967	3.8	50
109	Gene regulation in response to DNA damage. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2012 , 1819, 154-65	6	50
108	RecA stimulates sister chromatid exchange and the fidelity of double-strand break repair, but not gene targeting, in plants transformed by Agrobacterium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 3358-63	11.5	50
107	Repair of adjacent single-strand breaks is often accompanied by the formation of tandem sequence duplications in plant genomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 7266-71	11.5	45
106	In planta gene targeting can be enhanced by the use of CRISPR/Cas12a. <i>Plant Journal</i> , 2019 , 100, 1083-1094	9.4	45
105	BRCA2 is a mediator of RAD51- and DMC1-facilitated homologous recombination in Arabidopsis thaliana. <i>New Phytologist</i> , 2012 , 193, 364-75	9.8	45
104	Fork sensing and strand switching control antagonistic activities of RecQ helicases. <i>Nature Communications</i> , 2013 , 4, 2024	17.4	45
103	Some like it sticky: targeting of the rice gene Waxy. <i>Trends in Plant Science</i> , 2003 , 8, 51-3	13.1	43
102	Gene therapy in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 8321-3	11.5	43

101	A new strain of potato spindle tuber viroid (PSTVd-N) exhibits major sequence differences as compared to all other PSTVd strains sequenced so far. <i>Plant Molecular Biology</i> , 1990 , 15, 509-11	4.6	42
100	A homolog of ScRAD5 is involved in DNA repair and homologous recombination in Arabidopsis. <i>Plant Physiology</i> , 2008 , 146, 1786-96	6.6	41
99	A homologue of the breast cancer-associated gene BARD1 is involved in DNA repair in plants. <i>EMBO Journal</i> , 2006 , 25, 4326-37	13	38
98	Primary and secondary structure of citrus viroid IV (CVd IV), a new chimeric viroid present in dwarfed grapefruit in Israel. <i>Nucleic Acids Research</i> , 1991 , 19, 6640	20.1	38
97	Gene replacement by homologous recombination in plants. <i>Plant Molecular Biology</i> , 2002 , 48, 173-82	4.6	37
96	Two distinct MUS81-EME1 complexes from Arabidopsis process Holliday junctions. <i>Plant Physiology</i> , 2009 , 150, 1062-71	6.6	36
95	Differences in the processing of DNA ends in Arabidopsis thaliana and tobacco: possible implications for genome evolution. <i>Plant Molecular Biology</i> , 2003 , 51, 523-31	4.6	36
94	Knocking out consumer concerns and regulator's rules: efficient use of CRISPR/Cas ribonucleoprotein complexes for genome editing in cereals. <i>Genome Biology</i> , 2017 , 18, 43	18.3	35
93	The role of double-strand break-induced allelic homologous recombination in somatic plant cells. <i>Plant Journal</i> , 2002 , 32, 277-84	6.9	35
92	Intron gain and loss in the evolution of the conserved eukaryotic recombination machinery. <i>Nucleic Acids Research</i> , 2002 , 30, 5175-81	20.1	34
91	Changing local recombination patterns in Arabidopsis by CRISPR/Cas mediated chromosome engineering. <i>Nature Communications</i> , 2020 , 11, 4418	17.4	34
90	The Arabidopsis thaliana homolog of the helicase RTEL1 plays multiple roles in preserving genome stability. <i>Plant Cell</i> , 2014 , 26, 4889-902	11.6	33
89	Homologs of breast cancer genes in plants. <i>Frontiers in Plant Science</i> , 2011 , 2, 19	6.2	33
88	The mechanism of extrachromosomal homologous DNA recombination in plant cells. <i>Molecular Genetics and Genomics</i> , 1991 , 230, 1-7		32
87	In planta somatic homologous recombination assay revisited: a successful and versatile, but delicate tool. <i>Plant Cell</i> , 2012 , 24, 4324-31	11.6	31
86	Defining the roles of the N-terminal region and the helicase activity of RECQ4A in DNA repair and homologous recombination in Arabidopsis. <i>Nucleic Acids Research</i> , 2014 , 42, 1684-97	20.1	30
85	Extrachromosomal homologous DNA recombination in plant cells is fast and is not affected by CpG methylation. <i>Molecular and Cellular Biology</i> , 1992 , 12, 3372-9	4.8	30
84	AtRECQ2, a RecQ helicase homologue from Arabidopsis thaliana, is able to disrupt various recombinogenic DNA structures in vitro. <i>Plant Journal</i> , 2008 , 55, 397-405	6.9	29

83	Towards the ideal GMP: homologous recombination and marker gene excision. <i>Journal of Plant Physiology</i> , 2003 , 160, 743-54	3.6	28
82	DNA Break Repair in Plants and Its Application for Genome Engineering. <i>Methods in Molecular Biology</i> , 2019 , 1864, 237-266	1.4	27
81	Efficient Agrobacterium-mediated transformation of Arabidopsis thaliana using the bar gene as selectable marker. <i>Plant Cell Reports</i> , 1995 , 14, 450-4	5.1	25
80	Endogenous sequence patterns predispose the repair modes of CRISPR/Cas9-induced DNA double-stranded breaks in Arabidopsis thaliana. <i>Plant Journal</i> , 2017 , 92, 57-67	6.9	24
79	Involvement of the Cohesin Cofactor PDS5 (SPO76) During Meiosis and DNA Repair in Arabidopsis thaliana. <i>Frontiers in Plant Science</i> , 2015 , 6, 1034	6.2	24
78	Development of Bag-1L as a therapeutic target in androgen receptor-dependent prostate cancer. <i>ELife</i> , 2017 , 6,	8.9	23
77	Novel CRISPR/Cas applications in plants: from prime editing to chromosome engineering. <i>Transgenic Research</i> , 2021 , 30, 529-549	3.3	23
76	Homologous recombination in plants. <i>Experientia</i> , 1994 , 50, 277-284		22
75	Sequence analysis of minute amounts of viroid RNA using the polymerase chain reaction (PCR). Rapid communication. <i>Archives of Virology</i> , 1989 , 106, 335-40	2.6	22
74	The RTR Complex Partner RMI2 and the DNA Helicase RTEL1 Are Both Independently Involved in Preserving the Stability of 45S rDNA Repeats in Arabidopsis thaliana. <i>PLoS Genetics</i> , 2016 , 12, e1006394 ⁶		22
73	Different functions for the domains of the Arabidopsis thaliana RMI1 protein in DNA cross-link repair, somatic and meiotic recombination. <i>Nucleic Acids Research</i> , 2013 , 41, 9349-60	20.1	21
72	Biochemical characterization of an exonuclease from Arabidopsis thaliana reveals similarities to the DNA exonuclease of the human Werner syndrome protein. <i>Journal of Biological Chemistry</i> , 2003 , 278, 44128-38	5.4	21
71	ZYP1 is required for obligate cross-over formation and cross-over interference in. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	21
70	From gene editing to genome engineering: restructuring plant chromosomes via CRISPR/Cas. <i>ABIOTECH</i> , 2020 , 1, 21-31	3.9	21
69	Enhancing in planta gene targeting efficiencies in Arabidopsis using temperature-tolerant CRISPR/LbCas12a. <i>Plant Biotechnology Journal</i> , 2020 , 18, 2382-2384	11.6	19
68	MHF1 plays Fanconi anaemia complementation group M protein (FANCM)-dependent and FANCM-independent roles in DNA repair and homologous recombination in plants. <i>Plant Journal</i> , 2014 , 78, 822-33	6.9	19
67	A SRS2 homolog from Arabidopsis thaliana disrupts recombinogenic DNA intermediates and facilitates single strand annealing. <i>Nucleic Acids Research</i> , 2009 , 37, 7163-76	20.1	19
66	The RTR complex as caretaker of genome stability and its unique meiotic function in plants. <i>Frontiers in Plant Science</i> , 2014 , 5, 33	6.2	18

65	Nucleotide sequence and secondary structure of apple scar skin viroid (ASSVd) from China. <i>Plant Molecular Biology</i> , 1990 , 14, 1065-7	4.6	18
64	The Protease WSS1A, the Endonuclease MUS81, and the Phosphodiesterase TDP1 Are Involved in Independent Pathways of DNA-protein Crosslink Repair in Plants. <i>Plant Cell</i> , 2019 , 31, 775-790	11.6	18
63	CRISPR/Cas-Mediated Site-Specific Mutagenesis in <i>Arabidopsis thaliana</i> Using Cas9 Nucleases and Paired Nickases. <i>Methods in Molecular Biology</i> , 2016 , 1469, 111-22	1.4	17
62	Biochemical characterization of AtRECQ3 reveals significant differences relative to other RecQ helicases. <i>Plant Physiology</i> , 2009 , 151, 1658-66	6.6	17
61	Nucleotide sequence of a hop stunt viroid isolate from the German grapevine cultivar 'RieslingT'. <i>Nucleic Acids Research</i> , 1988 , 16, 2730	20.1	17
60	Breaking news: plants mutate right on target. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 11657-8	11.5	16
59	Application of CRISPR/Cas to Understand Cis- and Trans-Regulatory Elements in Plants. <i>Methods in Molecular Biology</i> , 2018 , 1830, 23-40	1.4	15
58	Green light for gene targeting in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 11961-2	11.5	15
57	AtRECQ2, a RecQ helicase homologue from <i>Arabidopsis thaliana</i> , is able to disrupt various recombinogenic DNA structures in vitro. <i>Plant Journal</i> , 2008 , 55, 397-405	6.9	15
56	The DNA translocase RAD5A acts independently of the other main DNA repair pathways, and requires both its ATPase and RING domain for activity in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2017 , 91, 725-740	6.9	13
55	The Translesion Polymerase η Has Roles Dependent on and Independent of the Nuclease MUS81 and the Helicase RECQ4A in DNA Damage Repair in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2015 , 169, 2718-29	6.6	13
54	The nuclease FAN1 is involved in DNA crosslink repair in <i>Arabidopsis thaliana</i> independently of the nuclease MUS81. <i>Nucleic Acids Research</i> , 2015 , 43, 3653-66	20.1	13
53	Metal-mediated DNA assembly using the ethynyl linked terpyridine ligand. <i>Organic and Biomolecular Chemistry</i> , 2012 , 10, 46-8	3.9	13
52	Nucleotide sequence of a hop stunt viroid (HSVd) isolate from grapefruit in Israel. <i>Nucleic Acids Research</i> , 1989 , 17, 1247	20.1	13
51	The topoisomerase 3'zinc-finger domain T1 of <i>Arabidopsis thaliana</i> is required for targeting the enzyme activity to Holliday junction-like DNA repair intermediates. <i>PLoS Genetics</i> , 2018 , 14, e1007674	6	13
50	Chromosomal location and genetic mapping of the mismatch repair gene homologs MSH2, MSH3, and MSH6 in rye and wheat. <i>Genome</i> , 1999 , 42, 1255-7	2.4	12
49	Efficient gene targeting in <i>Nicotiana tabacum</i> using CRISPR/SaCas9 and temperature tolerant LbCas12a. <i>Plant Biotechnology Journal</i> , 2021 , 19, 1314-1324	11.6	12
48	An <i>Arabidopsis</i> FANCI helicase homologue is required for DNA crosslink repair and rDNA repeat stability. <i>PLoS Genetics</i> , 2019 , 15, e1008174	6	11

47	AtRAD5A is a DNA translocase harboring a HIRAN domain which confers binding to branched DNA structures and is required for DNA repair in vivo. <i>Plant Journal</i> , 2016 , 88, 521-530	6.9	11
46	The Rad50 genes of diploid and polyploid wheat species. Analysis of homologue and homoeologue expression and interactions with Mre11. <i>Theoretical and Applied Genetics</i> , 2011 , 122, 251-62	6	11
45	Use of I-Sce I to induce DNA double-strand breaks in Nicotiana. <i>Methods in Molecular Biology</i> , 1999 , 113, 447-51	1.4	11
44	Analysis of unknown DNA sequences by polymerase chain reaction (PCR) using a single specific primer and a standardized adaptor. <i>Journal of Virological Methods</i> , 1991 , 32, 115-9	2.6	11
43	CRISPR-Cas-mediated chromosome engineering for crop improvement and synthetic biology. <i>Nature Plants</i> , 2021 , 7, 566-573	11.5	11
42	DNA- and DNA-Protein-Crosslink Repair in Plants. <i>International Journal of Molecular Sciences</i> , 2019 , 20,	6.3	10
41	The RecQ-like helicase HRQ1 is involved in DNA crosslink repair in Arabidopsis in a common pathway with the Fanconi anemia-associated nuclease FAN1 and the postreplicative repair ATPase RAD5A. <i>New Phytologist</i> , 2018 , 218, 1478-1490	9.8	10
40	Intrachromosomal homologous recombination in Arabidopsis thaliana. <i>Methods in Molecular Biology</i> , 2004 , 262, 25-34	1.4	10
39	Nucleotide sequence of a hop stunt viroid (HSVd) isolate from the German grapevine rootstock 5BB as determined by PCR-mediated sequence analysis. <i>Nucleic Acids Research</i> , 1989 , 17, 5841	20.1	10
38	Molecular and biological properties of a cloned and infectious new sequence variant of cucumber pale fruit viroid (CPFV). <i>Nucleic Acids Research</i> , 1988 , 16, 8171	20.1	10
37	Purification and characterization of RecQ helicases of plants. <i>Methods in Molecular Biology</i> , 2010 , 587, 195-209	1.4	10
36	Nucleotide sequence of the Korean strain of hop stunt viroid (HSV). <i>Nucleic Acids Research</i> , 1988 , 16, 8708	20.1	8
35	What Comparative Genomics Tells Us About the Evolution of Eukaryotic Genes Involved in Recombination. <i>Current Genomics</i> , 2004 , 5, 109-121	2.6	8
34	Substrate Specificity of Plant Recombinases Determined in Extrachromosomal Recombination Systems 1994 , 123-155		8
33	Application of Aptamers Improves CRISPR-Based Live Imaging of Plant Telomeres. <i>Frontiers in Plant Science</i> , 2020 , 11, 1254	6.2	8
32	Sophisticated CRISPR/Cas tools for fine-tuning plant performance. <i>Journal of Plant Physiology</i> , 2021 , 257, 153332	3.6	8
31	An improved procedure for the rapid one-step-cloning of full-length viroid cDNA. <i>Archives of Virology</i> , 1988 , 101, 137-40	2.6	7
30	CRISPR/Cas-mediated chromosome engineering: opening up a new avenue for plant breeding. <i>Journal of Experimental Botany</i> , 2021 , 72, 177-183	7	7

29	Use of the Cas9 Orthologs from <i>Streptococcus thermophilus</i> and <i>Staphylococcus aureus</i> for Non-Homologous End-Joining Mediated Site-Specific Mutagenesis in <i>Arabidopsis thaliana</i> . <i>Methods in Molecular Biology</i> , 2017 , 1669, 365-376	1.4	6
28	CRISPR Guide RNA Design Guidelines for Efficient Genome Editing. <i>Methods in Molecular Biology</i> , 2020 , 2166, 331-342	1.4	6
27	CRISPR/Cas-Mediated In Planta Gene Targeting. <i>Methods in Molecular Biology</i> , 2017 , 1610, 3-11	1.4	5
26	Broadening the applicability of CRISPR/Cas9 in plants. <i>Science China Life Sciences</i> , 2018 , 61, 126-127	8.5	5
25	Advances in New Technology for Targeted Modification of Plant Genomes 2015 ,		5
24	Gene replacement by homologous recombination in plants 2002 , 173-182		5
23	Repair of DNA-protein crosslinks in plants. <i>DNA Repair</i> , 2020 , 87, 102787	4.3	5
22	Use of I-Sce I to Induce DNA Double-Strand Breaks in <i>Nicotiana</i> 1999 , 447-451		5
21	Breaking DNA in plants: how I almost missed my personal breakthrough. <i>Plant Biotechnology Journal</i> , 2016 , 14, 437-40	11.6	4
20	Double-Strand Break Repair and Its Application to Genome Engineering in Plants 2015 , 1-20		4
19	Application of CRISPR/Cas-mediated base editing for directed protein evolution in plants. <i>Science China Life Sciences</i> , 2020 , 63, 613-616	8.5	4
18	DNA Helicases as Safekeepers of Genome Stability in Plants. <i>Genes</i> , 2019 , 10,	4.2	4
17	Genome Engineering mit CRISPR/Cas [Revolution in der Pflanzenzüchtung. <i>BioSpektrum</i> , 2017 , 23, 159-161	0.1	3
16	Using CRISPR/ttLbCas12a for in planta Gene Targeting in <i>A. thaliana</i> . <i>Current Protocols in Plant Biology</i> , 2020 , 5, e20117	2.8	3
15	Different functional roles of RTR complex factors in DNA repair and meiosis in <i>Arabidopsis</i> and tomato. <i>Plant Journal</i> , 2021 , 106, 965-977	6.9	3
14	Updates on gene editing and its applications.. <i>Plant Physiology</i> , 2022 ,	6.6	2
13	Analyzing Somatic DNA Repair in <i>Arabidopsis</i> Meiotic Mutants. <i>Methods in Molecular Biology</i> , 2020 , 2061, 359-366	1.4	2
12	Double strand break (DSB) repair pathways in plants and their application in genome engineering. <i>Burleigh Dodds Series in Agricultural Science</i> , 2021 , 27-62	2	2

11	The repair of topoisomerase 2 cleavage complexes in Arabidopsis. <i>Plant Cell</i> , 2021 ,	11.6	2
10	Live-Cell CRISPR Imaging in Plant Cells with a Telomere-Specific Guide RNA. <i>Methods in Molecular Biology</i> , 2020 , 2166, 343-356	1.4	2
9	Das CRISPR/Cas-System. <i>Biologie in Unserer Zeit</i> , 2018 , 48, 100-105	0.1	1
8	DNA Repair and Recombination in Plants 2014 , 51-93		1
7	Nucleus and Genome: DNA Recombination and Repair 2014 , 1-37		1
6	Different DNA repair pathways are involved in single-strand break-induced genomic changes in plants. <i>Plant Cell</i> , 2021 , 33, 3454-3469	11.6	1
5	Non-homologous end joining as key to CRISPR/Cas-mediated plant chromosome engineering. <i>Plant Physiology</i> , 2021 ,	6.6	1
4	Using CRISPR-Kill for organ specific cell elimination by cleavage of tandem repeats.. <i>Nature Communications</i> , 2022 , 13, 1502	17.4	0
3	Von Genen zu Chromosomen: Pflanzenzüchtung mit CRISPR-CAS. <i>BioSpektrum</i> , 2021 , 27, 613-615	0.1	
2	Efficient Homologous Recombination-Mediated in Planta Gene Targeting by Egg-Cell-Specific Expression of Staphylococcus aureus Cas9 from Arabidopsis. <i>Springer Protocols</i> , 2020 , 25-34	0.3	
1	DNA repair meets climate change. <i>Nature Plants</i> , 2020 , 6, 1398-1399	11.5	