

## 2021 年发表的重要研究论文

序号	通讯作者	论文名称	期刊名称/卷首页	影响因子
1	田 丰	Natural variation in crops: realized understanding, continuing promise	<b>Annu Rev Plant Biol</b> (2021) 72: 357-385	26.379
2	郑绍建	Structural basis of ALMT1-Mediated aluminum resistance in <i>Arabidopsis</i>	<b>Cell Res</b> (2022) 32: 89-98	25.617
3	刘建祥	Timing to grow: roles of clock in thermomorphogenesis	<b>Trends Plant Sci</b> (2021) 26: 1248-1257	18.313
4	陈丽梅 武维华	CALCIUM-DEPENDENT PROTEIN KINASE32 mediates calcium signaling in regulating <i>Arabidopsis</i> flowering time	<b>Natl Sci Rev</b> DOI:10.1093/nsr/nwab180	17.275
5	苏 震	PlantGSAD: a comprehensive gene set annotation database for plant species	<b>Nucleic Acids Res</b> (2021) 50: gkab794	16.971
6	田 丰	Towards knowledge-driven breeding	<b>Nat Plants</b> (2021) 7: 242-243	15.793
7	宋伟彬	Loss-of-function alleles of <i>ZmPLD3</i> cause haploid induction in maize	<b>Nat Plants</b> (2021) 7: 1579-1588	15.793
8	毛同林	The E3 ligase MREL57 modulates microtubule stability and stomatal closure in response to ABA	<b>Nat Commun</b> (2021) 12: 2181	14.919
9	徐 凌	Genome-resolved metagenomics reveals role of iron metabolism in drought-induced rhizosphere microbiome dynamics	<b>Nat Commun</b> (2021) 12: 3209	14.919
10	杨淑华	Natural variation in a type-A response regulator confers maize chilling tolerance	<b>Nat Commun</b> (2021) 12: 4713	14.919
11	刘建祥	XBAT31 regulates thermoresponsive hypocotyl growth through mediating degradation of the thermosensor ELF3 in <i>Arabidopsis</i>	<b>Sci Adv</b> (2021) 7: eabf4427	14.136
12	金危危 董朝斌	Megabase-scale presence-absence variation with <i>Tripsacum</i> origin was under selection during maize domestication and adaptation	<b>Genome Biol</b> (2021) 22: 237	13.583
13	王喜庆	Flexible wearables for plants	<b>Small</b> (2021) 17: 2104482	13.281
14	田 丰	Harnessing knowledge from maize and rice domestication for new crop breeding	<b>Mol Plant</b> (2021) 14: 09-26	13.164

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15	刘建祥	Protein quality control in plant organelles: current progress and future perspectives.	<b>Mol Plant</b> (2021) 14: 95-114	13.164
16	李继刚	Is the Pr form of phytochrome biologically active in the nucleus?	<b>Mol Plant</b> (2021) 14: 535-537	13.164
17	周文焜	CIK receptor kinases in root meristem	<b>Mol Plant</b> (2021) 14: 873	13.164
18	郑绍建	A transcriptional factor STOP1-centered pathway coordinates ammonium and phosphate acquisition in <i>Arabidopsis</i>	<b>Mol Plant</b> (2021) 14: 1554-1568	13.164
19	丁忠杰 郑绍建	Restriction of iron loading into developing seeds by a YABBY Transcription factor safeguards successful reproduction in <i>Arabidopsis</i>	<b>Mol Plant</b> (2021) 14: 1624-1639	13.164
20	周文焜	Molecular mechanism of <i>Verticillium dahliae</i> induced leaf senescence	<b>Mol Plant</b> (2021) 14: 1785-1786	13.164
21	郭 岩	Dynamic changes of phosphatidylinositol and phosphatidylinositol 4-phosphate levels modulate H <sup>+</sup> -ATPase and Na <sup>+</sup> /H <sup>+</sup> antiporter activities to maintain ion homeostasis in <i>Arabidopsis</i> under salt stress	<b>Mol Plant</b> (2021) 14: 2000-2014	13.164
22	王 毅	A potassium-sensing niche in <i>Arabidopsis</i> roots orchestrates signaling and adaptation responses to maintain nutrient homeostasis	<b>Dev Cell</b> (2021) 56: 381-794	12.27
23	杨淑华	Calcium transporter AtANN1 mediates cold-induced calcium signaling and plant freezing tolerance	<b>EMBO J</b> (2021) 40: e104559	11.598
24	毛同林	The microtubule-associated protein WDL4 modulates auxin distribution to promote apical hook opening in <i>Arabidopsis</i>	<b>Plant Cell</b> (2021) 33: 1927-1944	11.277
25	秦 峰	Manipulating <i>ZmEXPA4</i> expression ameliorates the drought-induced prolonged anthesis and silking interval in maize	<b>Plant Cell</b> (2021) 33: 2059-2071	11.277
26	杨淑华	The CRY2-COP1-HY5-BBX7/8 module regulates blue light-dependent cold acclimation in <i>Arabidopsis</i>	<b>Plant Cell</b> (2021) 33: 3555-3573	11.277

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27	巩志忠 齐俊生	<i>Verticillium dahliae</i> effector VDAL protects MYB6 from degradation by interacting with PUB25 and PUB26 E3 ligases to enhance <i>Verticillium</i> wilt resistance	<b>Plant Cell</b> (2021) 33: 3675-3699	11.277
28	金崇伟	STOP1 activates NRT1.1-mediated nitrate uptake to create a favorable rhizospheric pH for plant adaptation to acidity	<b>Plant Cell</b> (2021) 33: 3658-3674	11.277
29	李继刚	Mutual upregulation of HY5 and TZP in mediating phytochrome A signaling	<b>Plant Cell</b> (2021) koab254	11.277
30	郭 岩	Phosphatidylinositol 3-phosphate regulates SCAB1-mediated F-actin reorganization during stomatal closure in <i>Arabidopsis</i>	<b>Plant Cell</b> (2021) koab264	11.277
31	李召虎	A (conditional) role for labdane-related diterpenoid natural products in rice stomatal closure	<b>New Phytol</b> (2021) 230: 698-709	10.151
32	毛传澡 莫肖蓉	OsHLH98 regulates leaf angle in rice through transcriptional repression of OsBUL1	<b>New Phytol</b> (2021) 230: 1953-1966	10.151
33	蒋才富	Metabolomics-driven gene mining and genetic improvement of tolerance to salt-induced osmotic stress in maize	<b>New Phytol</b> (2021) 230: 2355-2370	10.151
34	朱 蕾	HOMEBOX PROTEIN 24 mediates the conversion of indole-3-butyric acid to indole-3-acetic acid to promote root hair elongation	<b>New Phytol</b> (2021) 232: 2057-2070	10.151
35	宋伟彬	ZmCTLP1 is required for the maintenance of lipid homeostasis and the basal endosperm transfer layer in maize kernels	<b>New Phytol</b> (2021) 232: 2384-2399	10.151
36	宋任涛	Accumulation of 22 kDa $\alpha$ -zein-mediated nonzein protein in protein body of maize endosperm	<b>New Phytol</b> (2021) 233: 265-281	10.151
37	陈丽梅 王 毅	Two calcium-dependent protein kinases enhance maize drought tolerance by activating anion channel ZmSLAC1 in guard cells	<b>Plant Biotechnol J</b> (2022) 20: 143-157	9.803

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38	杨小红	Genetic basis of kernel starch content decoded in a maize multi-parent population	<b>Plant Biotechnol J</b> (2021) 19: 2192-2205	9.803
39	毛传澡	VAP-RELATED SUPPRESSORS OF TOO MANY MOUTHS (VST) family proteins are regulators of root system architecture	<b>Plant Physiol</b> (2021) 185: 457-468	8.34
40	金崇伟	Knockout of <i>FER</i> decreases cadmium concentration in roots of <i>Arabidopsis thaliana</i> by inhibiting the pathway related to iron uptake	<b>Sci Total Environ</b> (2021) 798: 149285	7.963
41	苏 震	Refinement of bamboo genome annotations through integrative analyses of transcriptomic and epigenomic data	<b>Comput Struct Biotechnol J</b> (2021) 19: 2708-2718	7.271
42	武维华	Potassium and phosphorus transport and signaling in plants	<b>J Integr Plant Biol</b> (2021) 63: 34-52	7.061
43	巩志忠	Protein kinases in plant responses to drought, salt, and cold stress	<b>J Integr Plant Biol</b> (2021) 63: 53-78	7.061
44	巩志忠	<i>Arabidopsis</i> U-box E3 ubiquitin ligase PUB11 negatively regulates drought tolerance by degrading the receptor-like protein kinases LRR1 and KIN7	<b>J Integr Plant Biol</b> (2021) 63: 494-509	7.061
45	宋任涛	Maize endosperm development.	<b>J Integr Plant Biol</b> (2021) 63: 613-627	7.061
46	刘建祥	The E3 ligase XBAT35 mediates thermoresponsive hypocotyl growth by targeting ELF3 for degradation in <i>Arabidopsis</i>	<b>J Integr Plant Biol</b> (2021) 63: 1097-1103	7.061
47	丁杨林	Reciprocal regulation between the negative regulator PP2CG1 phosphatase and the positive regulator OST1 kinase confers cold response in <i>Arabidopsis</i>	<b>J Integr Plant Biol</b> (2021) 63: 1568-1587	7.061
48	施怡婷	The direct targets of CBFs: in cold stress response and beyond	<b>J Integr Plant Biol</b> (2021) 63: 1874-1887	7.061
49	田晓莉	Gibberellin biosynthesis inhibitor mepiquat chloride enhances root K <sup>+</sup> uptake in cotton by modulating plasma membrane H <sup>+</sup> -ATPase	<b>J Exp Bot</b> (2021) 72: 6659-6671	6.992

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50	傅 缨 朱 蕾	<i>Arabidopsis</i> QWRF1 and QWRF2 redundantly modulate cortical microtubule arrangement in floral organ growth and fertility	<b>Front Cell Dev Biol</b> (2021) 9: 634218	6.684
51	毛传澡	OsHHLH6 interacts with OsSPX4 and regulates the phosphate starvation response in rice	<b>Plant J</b> (2021) 105: 649-667	6.417
52	张学琴	The <i>Arabidopsis</i> AGC kinases NDR2/4/5 interact with MOB1A/1B and play important roles in pollen development and germination	<b>Plant J</b> (2021) 105: 1035-1052	6.417
53	刘建祥	Histone H3K4 methyltransferases SDG25 and ATX1 maintain heat stress gene expression during recovery in <i>Arabidopsis</i>	<b>Plant J</b> (2021) 105: 1326-1338	6.417
54	毛传澡	Root-secreted peptide OsPEP1 regulates primary root elongation in rice	<b>Plant J</b> (2021) 107: 480-492	6.417
55	寿惠霞	DNA methylation is involved in acclimation to iron deficiency in rice ( <i>Oryza sativa</i> )	<b>Plant J</b> (2021) 107: 727-739	6.417
56	李 岩	Myosin XI-B is involved in the transport of vesicles and organelles in pollen tubes of <i>Arabidopsis thaliana</i>	<b>Plant J</b> (2021) 108: 1145-1161	6.417
57	寿惠霞	CRISPR/Cas9-mediated knockout of <i>GmFATB1</i> significantly reduced the amount of saturated fatty acids in soybean seeds	<b>Int J Mol Sci</b> (2021) 22: 3877	5.923
58	王喜庆	High-throughput and accurate determination of transgene copy number and zygosity in transgenic maize: from DNA extraction to data analysis	<b>Int J Mol Sci</b> (2021) 22: 12487	5.923
59	段留生	An ABA functional analogue B2 enhanced salt tolerance by inducing the root elongation and reducing peroxidation damage in maize seedlings	<b>Int J Mol Sci</b> (2021) 22: 12986	5.923
60	田晓莉	Transcriptome analysis unravels key factors involved in response to potassium deficiency and feedback regulation of K <sup>+</sup> uptake in cotton roots	<b>Int J Mol Sci</b> (2021) 22: 44219	5.923

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61	徐明良	Transcriptome profiles of <i>Sporisorium reilianum</i> during the early infection of resistant and susceptible maize isogenic lines	<b>J Fungi</b> (2021) 7: 150	5.816
62	王 毅	ZMK1 is involved in K <sup>+</sup> uptake and regulated by protein kinase ZmCIPK23 in <i>Zea mays</i>	<b>Front Plant Sci</b> (2021) 12: 517742	5.753
63	刘建祥	Phosphoproteomic analysis of thermomorphogenic responses in <i>Arabidopsis</i>	<b>Front Plant Sci</b> (2021) 12: 753148	5.753
64	钟 涛	Genetic dissection of maize disease resistance and its applications in molecular breeding	<b>Mol Breeding</b> (2021) 41: 32	5.574
65	金危危 黄 伟	<i>Male sterile 28</i> encodes an ARGONAUTE family protein essential for male fertility in maize	<b>Chromosome Res</b> (2021) 29: 189-201	5.239
66	段留生	Optimizing irrigation and planting density of spring maize under mulch drip irrigation system in the arid region of Northwest China	<b>Field Crop Res</b> (2021) 266: 108141	5.224
67	段留生	Coronatine alleviates cold stress by improving growth and modulating antioxidative defense system in rice ( <i>Oryza sativa</i> L.) seedlings	<b>Field Crop Res</b> (2021) 260: 107982	5.224
68	宋任涛	<i>shrunk4</i> is a mutant allele of ZmYSL2 that affects aleurone development and starch synthesis in maize	<b>Genetics</b> (2021) 218: iyab070	4.562
69	徐 娟	Sporophytic control of anther development and male fertility by glucose-6-phosphate/phosphate translocator 1 (OsGPT1) in rice	<b>J Genet Genomics</b> (2021) 48: 485-496	4.275
70	赖锦盛	HITAC-seq enables high-throughput cost-effective sequencing of plasmids and DNA fragments with identity-tracked	<b>J Genet Genomics</b> (2021) 48: 671-680	4.275
71	段留生	Transcriptome dynamic landscape underlying the improvement of maize lodging resistance under coronatine treatment	<b>BMC Plant Biol</b> (2021) 21: 1-18	4.215

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72	汪 洋	Genome-wide survey and expression analysis of NIN-like Protein (NLP) genes reveals its potential roles in the response to nitrate signaling in tomato	<b>BMC Plant Biol</b> (2021) 21: 347-358	4.215
73	段留生	Exogenous gamma-aminobutyric acid coordinates active oxygen and amino acid homeostasis to enhance heat tolerance in wheat seedlings	<b>J Plant Growth Regul</b> (2021) 2021: 1-11	4.169
74	寿惠霞	Transcriptomic profiling of Fe-responsive lncRNAs and their regulatory mechanism in rice	<b>Genes</b> (2021) 12: 567	4.096
75	刘建祥	Two B-box domain proteins, BBX28 and BBX29, regulate flowering time at low ambient temperature in <i>Arabidopsis</i>	<b>Plant Mol Biol</b> (2021) 106: 21-32	4.076
76	陈立群	Genome-wide association study reveals the genetic architecture of root hair length in maize	<b>BMC Genomics</b> (2021) 22: 664	3.969

累计 **SCI** 影响因子 **736**，平均影响因子 **9.7/篇**。