利用非损伤微测技术已发表的种质相关文献列表（截至 2023 年 10 月）

盐胁迫

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Architecture and autoinhibitory mechanism of the plasma membrane Na+/H+ antiporter SOS1 in Arabidopsis	**Nature Communications**	17.694	**赵岩、江行玉**	中国科学院生物物理研究所、广东海洋大学
Melatonin enhances KCl salinity tolerance by maintaining K+ homeostasis in Malus hupehensis	**PLANT BIOTECHNOLOGY JOURNAL**	13.263	**郑晓东**	青岛农业大学
Genome-wide association studies identify OsWRKY53 as a key regulator of salt tolerance in rice	**Nature Communications**	16.6	**万建民、王春明**	中国农业科学院作物科学研究所、南京农业大学
A cluster of mutagenesis revealed an osmotic regulatory role of the OsPIP1 genes in enhancing rice salt tolerance	**The Crop Journal**	6.6	**张倩茹、程宪国**	国农业科学院农业资源与农业区划研究所
S-nitrosylation of ACO homolog 4 improves ethylene synthesis and salt tolerance in tomato	**New Phytologist**	10.323	**巩彪**	山东农业大学
CycC1;1–WRKY75 complex-mediated transcriptional regulation of SOS1 controls salt stress tolerance in Arabidopsis	**PLANT CELL**	12.085	**刘文成**	河南大学
Multifaceted regulatory functions of CsBPC2 in cucumber under salt stress conditions	**Horticulture Research**	7.291	**李衍素**	中国农业科学院蔬菜与花卉研究所
MicroRNA408 negatively regulates salt tolerance by affecting secondary cell wall development in maize	**Plant Physiology**	8.005	**李文学**	中国农业科学院作物科学研究所
Phosphatidic acid–regulated SOS2 controls sodium and potassium homeostasis in Arabidopsis under salt stress	**EMBO JOURNAL**	14.012	**郭岩、章文华**	中国农业大学、南京农业大学
The C2H2-type zinc finger transcription factor OSIC1 positively regulates stomatal closure under osmotic stress in poplar	**PLANT BIOTECHNOLOGY JOURNAL**	13.263	**万东石、姜渊忠**	兰州大学、四川大学
SALT OVERLY SENSITIVE 1 is inhibited by clade D Protein phosphatase 2C D6 and D7 in Arabidopsis thaliana	**PLANT CELL**	12.085	**郭岩**	中国农业大学
Growth-regulating factor 15-mediated gene regulatory network enhances salt tolerance in poplar	**Plant Physiology**	8.005	**张德强**	北京林业大学
The mechanistic basis of sodium exclusion in Puccinellia tenuiflora under conditions of salinity and potassium deprivation	**PLANT JOURNAL**	7.091	**张金林、Sergey Shabala**	兰州大学、The University of Western Australia

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
The classical SOS pathway confers natural variation of salt tolerance in maize	**NEW PHYTOLOGIST**	10.323	**蒋才富**	中国农业大学
OsTUB1 confers salt insensitivity by interacting with Kinesin13A to stabilize microtubules and ion transporters in rice	**NEW PHYTOLOGIST**	10.323	**万建民、王春明**	中国农业科学院作物科学研究所、南京农业大学
Mycorrhizal symbiosis reprograms ion fluxes and fatty acid metabolism in wild jujube during salt stress	**PLANT PHYSIOLOGY**	8.005	**黄建**	西北农林科技大学
Bracelet salt glands of the recretohalophyte Limonium bicolor: distribution, morphology, and induction	**Journal of Integrative Plant Biology**	9.106	**王宝山、袁芳**	山东师范大学
The genome of the recretohalophyte Limonium bicolor provides insights into salt gland development and salinity adaptation during terrestrial evolution	**Molecular Plant**	13.164	**王宝山、陈敏**	山东师范大学
The NADPH oxidase OsRbohA increases salt tolerance by modulating K+ homeostasis in rice	**Crop Journal**	4.407	**蒋明义**	南京农业大学
Calcium-Mobilizing Properties of Salvia miltiorrhiza-Derived Carbon Dots Confer Enhanced Environmental Adaptability in Plants	**ACS Nano**	15.88	**孙健、雷炳富、王瑞刚**	江苏师范大学、华南农业大学、农业农村部环境保护科研监测所
Dynamic changes of phosphatidylinositol and phosphatidylinositol 4-phosphate levels modulate H+-ATPase and Na+/H+ antiporter activities to maintain ion homeostasis in Arabidopsis under salt stress	**Molecular Plant**	13.164	**雷晓光、郭岩**	北京大学、中国农业大学
Calcineurin B-like protein 5 (SiCBL5) in Setaria italica enhances salt tolerance by regulating Na+ homeostasis	**Crop Journal**	4.407	**张阿英**	南京农业大学
Early ABA-stimulated maintenance of Cl− homeostasis by mepiquat chloride priming confers salt tolerance in cotton seeds	**Crop Journal**	3.395	**严根土、宋美珍**	中国农科院棉花研究所

水旱胁迫

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Independent and combined influence of drought stress and nitrogen deficiency on physiological and proteomic changes of barley leaves	**Environmental and Experimental Botany**	6.028	**王耀升**	中国农业科学院
Drought priming mechanisms in wheat elucidated by in-situ determination of dynamic stomatal behavior	**Frontiers in Plant Science**	6.627	**王笑**	南京农业大学
N6-methyladenosine RNA modification regulates cotton drought response in a Ca2+ and ABA-dependent manner	**Plant Biotechnology Journal**	13.263	**杨细燕、聂新辉**	华中农业大学、石河子大学
H2S-mediated balance regulation of stomatal and non-stomatal factors responding to drought stress in Chinese cabbage	**Horticulture Research**	7.291	**金竹萍**	山西大学
GmTDN1 improves wheat yields by inducing dual tolerance to both drought and low-N stress	**Plant Biotechnology Journal**	9.803	**马有志、陈明**	中国农科院作物科学研究所
Phosphorylation of the plasma membrane H+-ATPase AHA2 by BAK1 is required for ABA-induced stomatal closure in Arabidopsis	**Plant Cell**	11.277	**巩志忠**	中国农业大学 / 河北大学
Persulfidation-induced structural change in SnRK2.6 establishes intramolecular interaction between phosphorylation and persulfidation	**Molecular Plant**	13.164	**李积胜**	西北农林科技大学
The root-specific NF-Y family transcription factor, PdNF-YB21, positively regulates root growth and drought resistance by ABA-mediated IAA transport in Populus	**New Phytologist**	7.299	**夏新莉**	北京林业大学
HvAKT2 and HvHAK1 Confer Drought Tolerance in Barley through Enhanced Leaf Mesophyll H+ Homeostasis	**Plant Biotechnology Journal**	6.84	**邬飞波、陈仲华**	浙江大学作物科学研究所
Evolution of chloroplast retrograde signaling facilitates green plant adaptation to land	**Proc Natl Acad Sci USA**	9.504	**陈仲华**	浙江大学
Alleviation of drought stress by mycorrhizas is related to increased root H2O2 efflux in trifoliate orange	**Scientific Reports**	5.228	**吴强盛**	长江大学
First cloning and characterization of two functional aquaporin genes from an arbuscular mycorrhizal fungus Glomus intraradices	**New Phytologist**	6.645	**陈保冬**	中科院生态环境中心

重金属

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Homolog of Human placenta-specific gene 8, PcPLAC8-10, enhances cadmium uptake by Populus roots	**Journal of Hazardous Materials**	14.224	**罗志斌、石文广、邓澍荣**	中国林业科学院
Inventory of cadmium-transporter genes in the root of mangrove plant Avicennia marina under cadmium stress	**Journal of Hazardous Materials**	14.224	**郑海雷**	厦门大学
Fertilizer-induced manganese oxide formation enhances cadmium removal by paddy crusts from irrigation water	**Journal of Hazardous Materials**	14.224	**彭亮**	湖南农业大学
Metallochaperone OsHIPP9 is involved in the retention of cadmium and copper in rice	**Plant Cell and Environment**	7.947	**曲乐庆**	中国科学院植物研究所
reduces grain-cadmium levels in rice (Oryza sativa)	**Plant Journal**	7.091	**陈彩艳**	中国科学院亚热带农业生态研究所
AetSRG1 contributes to the inhibition of wheat Cd accumulation by stabilizing phenylalanine ammonia lyase	**Journal of Hazardous Materials**	10.588	**杜旭烨、Huayan Yin**	贵州师范大学、青岛农业大学
Radial transport difference mediated by root endodermal barriers contributes to differential cadmium accumulation between japonica and indica subspecies of rice (Oryza sativa L.)	**Journal of Hazardous Materials**	10.588	**王昌全、陶琦**	四川农业大学
Ammonium has stronger Cd detoxification ability than nitrate by reducing Cd influx and increasing Cd fixation in Solanum nigrum L.	**Journal of Hazardous Materials**	10.588	**郑海雷**	厦门大学
Harnessing an arbuscular mycorrhizal fungus to improve the adaptability of a facultative metallophytic poplar (Populus yunnanensis) to cadmium stress: Physiological and molecular responses	**Journal of Hazardous Materials**	10.588	**李涛、赵之伟**	云南大学
Wheat TaPUB1 Regulates Cd Uptake and Tolerance by Promoting the Degradation of TaIRT1 and TaIAA17	**Journal of Agriculture and Food Chemistry**	5.279	**张广强、Wei Wang**	山东农业大学

氮高效

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Hyphosphere microorganisms facilitate hyphal spreading and root colonization of plant symbiotic fungus in ammonium-enriched soil	**ISME Journal**	11.217	**戴传超、张伟**	南京师范大学
Strigolactone and gibberellin signaling coordinately regulate metabolic adaptations to changes in nitrogen availability in rice	**Molecular Plant**	27.5	**张亚丽、傅向东**	南京农业大学、中国科学院遗传与发育生物学研究所
Potassium Alleviated High Nitrogen-Induced Apple Growth Inhibition by Regulating Photosynthetic Nitrogen Allocation and Enhancing Nitrogen Utilization Capacity	**Horticultural Plant Journal**	4.24	**朱占玲，姜远茂，葛顺峰**	山东农业大学
The anion channel SLAH3 interacts with potassium channels to regulate nitrogen–potassium homeostasis and the membrane potential in Arabidopsis	**PLANT CELL**	12.085	**何凯**	兰州大学
Kinase MxMPK4-1 and calmodulin binding protein MxIQM3 enhance apple root acidification during Fe deficiency	**PLANT PHYSIOLOGY**	8.005	**韩振海、王忆**	中国农业大学
Carbon-nitrogen trading in symbiotic nodules depends on magnesium import	**CURRENT BIOLOGY**	10.9	**陈志长**	福建农林大学
Multi-omics analysis reveals the mechanism of bHLH130 responding to low-nitrogen stress of apple rootstock	**Plant Physiology**	8.005	**王忆**	中国农业大学
MYB308-mediated transcriptional activation of plasma membrane H+-ATPase 6 promotes iron uptake in citrus	**Horticulture Research**	6.793	**潘志勇**	华中农业大学
Nitrate transporter NRT1.1 and anion channel SLAH3 form a functional unit to regulate nitrate-dependent alleviation of ammonium toxicity	**Journal of Integrative Plant Biology**	7.061	**何凯**	兰州大学
Brassinosteroids modulate nitrogen physiological response and promote nitrogen uptake in maize (Zea mays L.)	**Crop Journal**	4.647	**张明才**	中国农业大学
STOP1 activates NRT1.1- mediated nitrate uptake to create a favorable rhizospheric pH for plant adaptation to acidity	**Plant Cell**	11.277	**金崇伟**	浙江大学

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
WRKY46 promotes ammonium tolerance in Arabidopsis by repressing NUDX9 and IAA-conjugating genes and by inhibiting NH4+ efflux in the root elongation zone	**New Phytologist**	10.151	**李光杰**	中国科学院南京土壤研究所
Plasma membrane H+-ATPase overexpression increases rice yield via simultaneous enhancement of nutrient uptake and photosynthesis	**Nature Communications**	12.121	**朱毅勇、木下俊则（Toshinori Kinoshita）**	南京农业大学、日本名古屋大学

温度

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Transcriptome Analysis of the Responses of Rice Leaves to Chilling and Subsequent Recovery	**INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES**	6.208	**林文雄、 Zhixing Zhang**	福建农林大学
Inositol Improves Cold Tolerance Through Inhibiting CBL1 and Increasing Ca2+ Influx in Rapeseed (Brassica napus L.)	**Frontiers in Plant Science**	6.627	**Xiling Zou**	中国农业科学院油料作物研究所
Mechanism of CsGPA1 in regulating cold tolerance of cucumber	**Horticulture Research**	6.793	**于贤昌、孙敏涛、高丽红**	中国农业科学院蔬菜花卉研究所、中国农业大学
TT2 controls rice thermotolerance through SCT1-dependent alteration of wax biosynthesis	**Nature Plants**	15.793	**林鸿宣**	中科院分子植物科学卓越创新中心
A β-Ketoacyl carrier protein reductase confers heat tolerance via the regulation of fatty acid biosynthesis and stress signaling in rice	**New Phytologist**	8.512	**于彦春、武丽敏、陈仲华**	杭州师范大学、西悉尼大学
High-Temperature-Responsive Poplar lncRNAs Modulate Target Gene Expression via RNA Interference and Act as RNA Scaffolds to Enhance Heat Tolerance	**International Journal of Molecular Sciences**	4.556	**张德强**	北京林业大学
Transcriptional Activation and Phosphorylation of OsCNGC9 Confer Enhanced Chilling Tolerance in Rice	**Molecular Plant**	12.084	**万建民**	中国农业科学院作物科学研究所
COLD1 Confers Chilling Tolerance in Rice	**Cell**	33.116	**种康**	中科院植物所

抗病

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Linalool Activates Oxidative and Calcium Burst and CAM3-ACA8 Participates in Calcium Recovery in Arabidopsis Leaves	**INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES**	6.208	**沈应柏**	北京林业大学
A cyclic nucleotide-gated channel mediates cytoplasmic calcium elevation and disease resistance in rice	**cell research**	17.848	**万建民**	中国农业科学院作物科学研究所
The fungal pathogen Magnaporthe oryzae suppresses innate immunity by modulating a host potassium channel	**Plos Pathogens**	6.608	**王国梁、王毅**	中国农科院、中国农业大学
Nanomaterial Size and Surface Modification Mediate Disease Resistance Activation in Cucumber (Cucumis sativus)	**ACS Nano**	17.1	**曹雪松**	江南大学
A phospho-switch constrains BTL2-mediated phytocytokine signaling in plant immunity	**Cell**	66.85	**单立波、何平**	得克萨斯农工大学
CML8 and GAD4 function in (Z)–3–hexenol–mediated defense by regulating γ–aminobutyric acid accumulation in Arabidopsis	**PLANT PHYSIOLOGY AND BIOCHEMISTRY**	5.437	**沈应柏**	北京林业大学
TaBln1, a member of the Blufensin family, negatively regulates wheat resistance to stripe rust by reducing Ca2+ influx	**PLANT PHYSIOLOGY**	8.34	**张新梅**	西北农林科技大学
Phosphorylation of the plasma membrane H+-ATPase AHA2 by BAK1 is required for ABA-induced stomatal closure in Arabidopsis	**Plant Cell**	11.277	**巩志忠**	中国农业大学 / 河北大学
The role of plasma membrane H+-ATPase in jasmonate-induced ion fluxes and stomatal closure in Arabidopsis thaliana	**Plant Journal**	5.972	**沈应柏**	北京林业大学

铝胁迫

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Evolution of phosphate metabolism in Tibetan wild barley to adapt to aluminum stress	**Plant and Soil**	4.993	**陈仲华、蔡圣冠**	浙江大学、西悉尼大学
Aluminum toxicity-induced pollen tube growth inhibition in apple (Malus domestica) is mediated by interrupting calcium dynamics and modification of cell wall components	**Environmental and Experimental Botany**	3.712	**秦岭、房克凤**	北京农学院
Boron Alleviates Aluminum Toxicity by Promoting Root Alkalization in Transition Zone via Polar Auxin Transport	**Plant physiology**	5.949	**喻敏、Sergey Shabala**	佛山科学技术学院、University of Tasmania
BoALMT1, an Al-Induced Malate Transporter in Cabbage, Enhances Aluminum Tolerance in Arabidopsis thaliana	**Frontiers in Plant Science**	3.678	**郭仰东**	中国农业大学
Ion Flux in Roots of Chinese Fir (Cunninghamia lanceolata (Lamb.) Hook) under Aluminum Stress	**PLoS One**	3.057	**林思祖**	福建农林大学
Brassica oleracea MATE Encodes a Citrate Transporter, and Enhances Aluminum Tolerance in Arabidopsis thaliana	**Plant and Cell Physiology**	4.134	**郭仰东**	中国农业大学

种子活性

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Molecular hydrogen positively regulates nitrate uptake and seed size by targeting nitrate reductase	**Plant Physiology**	8.005	**沈文飙**	南京农业大学
H2O2 and Ca2+ Signaling Crosstalk Counteracts ABA to Induce Seed Germination	**Antioxidants**	7.675	**李好**	西北农林科技大学
Exogenous Spermidine Priming Mitigates the Osmotic Damage in Germinating Seeds of Leymus chinensis Under Salt-Alkali Stress	**Frontiers in Plant Science**	5.753	**程宪国**	中国农业科学院农业资源与农业区划研究所
Exogenous salicylic acid signal reveals an osmotic regulatory role in priming the seed germination of Leymus chinensis under salt-alkali stress	**Environmental and Experimental Botany**	4.027	**程宪国**	中国农业科学院农业资源与农业区划研究所
SPL14/17 act downstream of strigolactone signalling to modulate rice root elongation in response to nitrate supply	**Plant Journal**	6.141	**孙虎威、赵全志、张亚丽**	河南农业大学、南京农业大学

标题	期刊名	影响因子	通讯作者	单位（通讯作者）
Melatonin antagonizes ABA action to promote seed germination by regulating Ca2+ efflux and H2O2 accumulation	**Plant Science**	3.591	**Xian Zhang**	西北农林科技大学
High temperature and drought stress cause abscisic acid and reactive oxygen species accumulation and suppress seed germination growth in rice.	**protoplasma**	2.633	**赵全志**	河南农业大学
The fluxes of H2O2 and O2 can be used to evaluate seed germination and vigor of Caragana korshinskii	**Planta**	3.347	**汪晓峰**	北京林业大学
A real-time, non-invasive, micro-optrode technique for detecting seed viability by using oxygen influx	**Scientific Reports**	2.927	**卢新雄**	中国农业科学院