

NMT 代表性文献(部分)



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	Pant 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	Emob 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 Ca ²⁺ 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 H ₂ O ₂ 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 NH ₄ ⁺ 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 則(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	Internationnal 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 Ca ²⁺ 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 IncRNAs 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 Ca ²⁺ 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
H ₂ O ₂ and Ca ²⁺ 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 Ca^{2+} efflux and H_2O_2 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 H ₂ O ₂ and O ₂ 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