



ISSN 1000-4025

CN61-1091/Q

# 西北植物学报

ACTA BOTANICA BOREALI-OCCIDENTALIA SINICA

第32卷 第4期

Vol.32 No.4



4

2012

西北农林科技大学 主办  
科学出版社 出版



万方数据

# 西北植物学报

(Xibei Zhiwu Xuebao, 1980 年创刊)

2012 年 4 月 第 32 卷 第 4 期

## 目 次

### · 研究报告 ·

- 甘蓝型油菜 *BnCYP78A8* 的克隆及序列分析 ..... 宋丽丽, 贺热情, 黄星群, 谢敏敏, 赵小英, 刘选明 (645)
- 云南普通野生稻和地方稻 *WRKY45* 基因的克隆及转化 ..... 李定琴, 黄兴奇, 韩海燕, 钟巧芳, 付 坚, 程在全 (651)
- 香石竹 *DcPAL1* 基因的克隆及其原核表达 ..... 张继栋, 曹锦萍, 乔爱民, 李红梅, 孙 敏, 何生根 (657)
- 盐芥 miRNAs 耐盐表达研究 ..... 刘 冉, 周立敬, 周宜君, 高 飞, 马亭亭, 隋 欣, 刘 楠 (665)
- 不结球白菜 *BcLRK01* 基因对芜菁花叶病毒及胁迫诱导的响应 ..... 彭海涛, 李彦肖, 李 英, 侯喜林 (670)
- 东乡野生稻耐冷渐渗系的细胞学观察及 SSR 分析 ..... 曹娟芳, 罗向东, 邓晓娟, 戴亮芳, 胡标林, 张帆涛, 谢建坤 (676)
- 甘薯栽培种及其近缘野生种的 DAPI 核型及 rDNA-FISH 分析 .....  
..... 安婷婷, 汤佳立, 孙健英, 曹清河, 马代夫, 李宗芸 (682)
- 珍稀濒危植物金毛狗的 SRAP 分析 ..... 由永飞, 邓洪平 (688)
- 紫斑牡丹遗传多样性的 ISSR 分析 ..... 杨美玲, 唐 红 (693)
- 麦冬与山麦冬块根形态发育的比较研究 ..... 焦连魁, 孙 鹏, 王 露, 李先恩 (698)
- 绿豆根边缘细胞发育特性 ..... 姜 华, 王亚男, 何 兵, 王 煜, 马丹炜 (704)
- 石灰岩特有植物圆叶乌柏叶表皮形态特征及其生态适应性研究 ..... 何敏宜, 袁锡强, 秦新生 (709)
- 二乔玉兰开花过程中花色变化的生理生化机制 ..... 张 超, 陈 光, 李彦慧 (716)
- 菊花不同花期及花序不同部位香气成分和挥发研究 ..... 徐 瑾, 李莹莹, 郑成淑, 王 超, 俞用权 (722)
- 遮荫对牡丹光合特性及观赏品质的影响 ..... 朱 琨, 宋 华, 赵世伟, 王莲英 (731)
- 不同瑞典能源柳无性系对干旱胁迫的生理响应 ..... 高 婷, 张文辉 (739)
- 外源脱落酸对小麦幼苗抗镉胁迫能力的影响 ..... 韩 超, 申海玉, 叶 嘉, 杨 利, 梁 爽 (745)
- 四季竹对土壤水分胁迫的生理适应 ..... 顾大彤, 陈双林 (751)
- 华南地区 8 种常见园林地被植物抗旱性比较研究 ..... 钱璐璐, 雷江丽, 庄雪影 (759)
- 植物生长延缓剂对盆栽月季生长发育的影响 ..... 武荣花, 李 勇, 王 升, 牛小花, 刘 鹏 (767)
- 模拟水分胁迫对不同种源麻楝种子萌发能力的影响 ..... 武 冲, 仲崇禄, 牟振强, 张 勇, 姜清彬, 马 妮 (774)
- 本氏针茅根际土提取物对本氏针茅及其优势种种子萌发的影响 ..... 杨亚利, 谢永生, 揣峻峰, 王 辉 (781)
- 引入草木樨对半干旱黄土高原区早期植物群落演替和土壤养分的影响(英文) .....  
..... 郭志彬, 王道中, 刘长安, 刘 枫, 李凤民 (787)

氮沉降对荒漠化草原草本植物物种多样性和群落组成的影响 .....	苏洁琼,李新荣,回 嵘,赵 洋,刘艳梅 (795)
梓树苗木地下和地上竞争的效应研究 .....	赵秋玲,张宋智,王军辉,负慧玲,冯小芹 (802)
西藏工布自然保护区藻类植物区系及分布特点 .....	李 博,冯 佳,谢树莲 (807)
<b>· 植物新类群与新分布 ·</b>	
中国四川荞麦属(蓼科)一新变种——翅果密毛野荞麦 .....	李晓江,唐 宇,夏明忠,邵继荣,刘建林 (815)
香果树属——秦岭北坡茜草科一新分布属 .....	樊卫东,沈茂才,刘 军,徐 昊,吴成春 (819)
雅致玉凤花——陕西省兰科一新分布种 .....	刘建才,田 涛,张 勋,陈 西,吴振海 (821)
<b>· 研究技术与方法 ·</b>	
黄瓜悬浮细胞蛋白质组双向电泳分析技术 .....	郝宇涵,范海延,曲 波,许玉凤,崔 娜,李 楠,任婧祺 (823)
珍稀植物杨叶肖槿 ISSR 体系建立及检测 .....	张永夏,刘 晓,黎 科,关于元,胡学强,邹永东 (829)
<b>· 研究综述与论坛 ·</b>	
一氧化氮在植物生长发育和抗逆过程中的作用研究进展 .....	张艳艳,章文华,薛 丽,傅向荣 (835)
植物 14-3-3 蛋白研究进展 .....	崔 娜,于志海,韩明利,董雪飞,曲 波,李天来 (843)
植物抗寒基因表达调控研究进展 .....	王俊峰,孔维国,张 煜,马玉敏,李娜娜,丁汉凤 (852)
<b>· 补 白 ·</b>	
《西北植物学报》投稿须知 .....	(644)
《西北植物学报》2011 年刊载论文第一作者信息统计分析 .....	(750)
《西北植物学报》2011 年刊载论文基金项目统计与分析 .....	(758)
《西北植物学报》论文写作要求 .....	(801)
《西北植物学报》第五届编辑委员会 .....	(封二)

# ACTA BOTANICA BOREALI-OccIDENTALIA SINICA

April 2012 Vol. 32 No. 4

(Started publication in 1980)

## CONTENTS

- Cloning and Sequence Analysis of *BnCYP78A8* from *Brassica napus* .....  
..... SONG Li-li, HE Re-qing, HUANG Xing-qun, XIE Min-min, ZHAO Xiao-ying, LIU Xuan-ming (645)
- Cloning and Transformation of *WRKY45* Gene from Wild Rice and Landrace Rice in Yunnan .....  
..... LI Ding-qin, HUANG Xing-qi, HAN Hai-yan, ZHONG Qiao-fang, FU Jian, CHENG Zai-quan (651)
- Cloning and Prokaryotic Expression of Carnation *DcPAL1* Gene .....  
..... ZHANG Ji-dong, CAO Jin-ping, QIAO Ai-min, LI Hong-mei, SUN Min, HE Sheng-gen (657)
- Studies on Expression of miRNAs in *Thellungiella* under Salt Stress .....  
..... LIU Ran, ZHOU Li-jing, ZHOU Yi-jun, GAO Fei, MA Ting-ting, SUI Xin, LIU Nan (665)
- Response of Gene *BcLRK01* to TuMV Infection and Stress in Non-heading Chinese Cabbage .....  
..... PENG Hai-tao, LI Yan-xiao, LI Ying, HOU Xi-lin (670)
- Cytological and SSR Analysis on Cold-tolerant Gene Introgression Lines from Dongxiang Wild Rice .....  
..... CAO Juan-fang, LUO Xiang-dong, DENG Xiao-juan, DAI Liang-fang, HU Biao-lin, ZHANG Fan-tao, XIE Jian-kun (676)
- rDNA-FISH Analysis and DAPI karyotype of *Ipomoea batatas* cv. and *Ipomoea hederacea* Jacq. ....  
..... AN Ting-ting, TANG Jia-li, SUN Jian-ying, CAO Qing-he, MA Dai-fu, LI Zong-yun (682)
- Analysis of Genetic Diversity of the Rare and Endangered Species *Cibotium barometz* by SRAP Markers .....  
..... YOU Yong-fei, DENG Hong-ping (688)
- Genetic Diversity of *Paeonia rockii* Revealed by ISSRs ..... YANG Mei-ling, TANG Hong (693)
- Comparative Study of Root Tuber Morphology Development of *Ophiopogon japonicus* and *Liriope spicata* .....  
..... JIAO Lian-kui, SUN Peng, WANG Lu, LI Xian-en (698)
- Biological Characters of Root Border Cell Development in *Phaseolus radiatus* .....  
..... JIANG Hua, WANG Ya-nan, HE Bing, WANG Yu, MA Dan-wei (704)
- Characteristics of Leaf Epidemic and the Association with Their Environmental Adaptation of *Triudica rotundifolia*, a  
Limestone Endemic Species ..... HE Min-yi, YUAN Xi-qiang, QIN Xin-sheng (709)
- Physiological and Biochemical Mechanism of Flower Color Variation during Flowering Season in *Yulania × soulangeana*  
..... ZHANG Chao, CHEN Guang, LI Yan-hui (716)
- Studies of Aroma Compounds in Chrysanthemum in Different Florescence and Inflorescence Parts and Aroma Releasing  
..... XU Jin, LI Ying-ying, ZHENG Cheng-shu, WANG Chao, YOO Yong-kweon (722)
- Effect of Shading Treatment on Photosynthetic Characteristics and Flower Quality of *Paeonia suffruticosa* .....  
..... ZHU Ying, SONG Hua, ZHAO Shi-wei, WANG Lian-ying (731)
- Physiological Responses of Different Energy Willow Clones under Drought Stress ..... GAO Ting, ZHANG Wen-hui (739)
- Effect of Exogenous Abscisic Acid on Tolerance of Wheat Seedlings to Cadmium Stress .....  
..... HAN Chao, SHEN Hai-yu, YE Jia, YANG Li, LIANG Shuang (745)
- Physiological Adaptation of *Oligostachyum lubricum* under Water Stress ..... GU Da-xing, CHEN Shuang-lin (751)

Comparative Research on Drought Resistance of 8 Common Garden Ground Cover Plants in South China .....	QIAN Tang-huang, LEI Jiang-li, ZHUANG Xue-ying (759)
Effect of Plant Growth Retardants on the Growth and Development of Potted Rose .....	WU Rong-hua, LI Yong, WANG Sheng, NIU Xiao-hua, LIU Peng (767)
Effect of Water Stress Simulated by PEG on Germination Ability of <i>Chukrasia tabularis</i> Seeds from Different Provenances .....	WU Chong, ZHONG Chong-lu, MU Zhen-qiang, ZHANG Yong, JIANG Qing-bin, MA Ni (774)
Effect of the Extracts of Rhizosphere Soil from <i>Stipa bungeana</i> on the Germination of <i>Stipa bungeana</i> and Its Dominant Species .....	YANG Ya-li, XIE Yong-sheng, CHUAI Jun-feng, WANG Hui (781)
Effect of Introducing Biennial Legume Species, <i>Melilotus officinalis</i> , on Plant Community in the Early Stage of Vegetation Succession and Soil Nutrients in the Semiarid Loess Plateau of China .....	GUO Zhi-bin, WANG Dao-zhong, LIU Chang-an, LIU Feng, LI Feng-min (787)
Effect of Nitrogen Deposition on Species Diversity and Community Composition of Herbaceous Vegetation in Desert Steppe .....	SU Jie-qiong, LI Xin-rong, HUI Rong, ZHAO Yang, LIU Yan-mei (795)
Research of Below and Above-ground Competitions in <i>Catalpa ovata</i> Seedlings .....	ZHAO Qiu-ling, ZHANG Song-zhi, WANG Jun-hui, YUN Hui-ling, FENG Xiao-qin (802)
Distribution and Floristic Characteristics of Algae in the Gongbu Nature Reserve, Tibet .....	LI Bo, FENG Jia, XIE Shu-lian (807)
<i>Fagopyrum densovillosum</i> var. <i>pterocarpum</i> (Polygonaceae), A New Variety from Sichuan, China .....	LI Xiao-jiang, TANG Yu, XIA Ming-zhong, SHAO Ji-rong, LIU Jian-lin (815)
<i>Emmenopterys</i> , A Newly Recorded Genus of Rubiaceae from North Slope of Qinling Mountain, China .....	FAN Wei-dong, SHEN Mao-cai, LIU Jun, XU Hao, WU Cheng-chun (819)
<i>Habenaria fargesii</i> , A Newly Recorded Species of Orchidaceae from Shaanxi Province .....	LIU Jian-cai, TIAN Tao, ZHANG Xun, CHEN Xi, WU Zhen-hai (821)
Optimization of Two-dimensional Electrophoresis for Proteome of Cucumber Suspension Cultured Cells .....	HAO Yu-han, FAN Hai-yan, QU Bo, XU Yu-feng, CUI Na, LI Nan, REN Jing-qi (823)
Detection and Establishment of ISSR System for Rare Species <i>Thespesia populnea</i> .....	ZHANG Yong-xia, LIU Xiao, LI Ke, GUAN Yu-yuan, HU Xue-qiang, ZOU Yong-dong (829)
Advance on NO Function in Plant Growth, Development and Abiotic Stress Tolerance .....	ZHANG Yan-yan, ZHANG Wen-hua, XUE Li, FU Xiang-rong (835)
Research Advancement of 14-3-3 Proteins in Plants .....	CUI Na, YU Zhi-hai, HAN Ming-li, DONG Xue-fei, QU Bo, LI Tian-lai (843)
Advance in Expression and Regulation of Cold-resistant Genes of Plants .....	WANG Jun-feng, KONG Wei-guo, ZHANG Yu, MA Yu-min, LI Na-na, DING Han-feng (852)