
Author Index to Volume 49

A		GAO, Zeng-Lu	127	LI, Dengwen	19
AN, Lizhe	243	GE, Jianping	57	LI, Feng	147
AN, Shuqing	351	GE, Xue-Jun	147	LI, Jia-Na	199
B		GELANI, Sadia	343	LI, Jianwu	189
BASRA, Shahzad M.A.	343	GU, Yu	93	LI, Jing	127
BENNY, Gerald L.	45	GUO, Lin-Ying	323	LI, X.L.	33
BOSABALIDIS, Artemios M.	363	GUO, Wen-Wu	295	LI, Yi	243
BOYCE, Peter C.	393	H		LIN, Chi-Tsai	119
C		Haibo YANG,	351	LIN, Kuan-Hung	9
CAI, Xiu-Zhen	161	HE, X.Y.	67	LIN, Yaw-Huei	1, 101, 109, 311
CAO, Hong-Lin	147	HENRIQUES, Fernando S.	235	LIN, Yong	57
CAO, Honglin	253	HO, Hsiao-Man	45	LIU, Fude	351
CHAI, You-Rong	199	HO, Yu-Ling	101, 311	LIU, Jun	189
CHANG, Man-Jau	311	HONG, Lan	253	LIU, Ke-Ming	161
CHANG, Reny-Chang	119	HOU, Wen-Chi	109	LIU, Ruming	19
CHANG, Tien-Ning	311	HSIEH, Chang-Fu	261	LIU, Shirong	351
CHANG, Yuan-Shiun	1, 101, 311	HSIEH, Huann Ju	277	LIU, Yan	83, 167, 405
CHEN, Chien-Fan	155	HSU, Yi Ting	335	LIU, Ying	287
CHEN, Chih-Hsiung	155	HU, Hong	225	LO, Hsiao-Feng	9
CHEN, Hsien-Jung	1, 101, 109	HU, Jer-Ming	261	LO, Hui-Shan	39
CHEN, Hsueh-Tai	119	HU, Jianbin	189	LU, Chung-An	25
CHEN, Jial-Jhen	311	HUANG, Ai-Xia	323	LU, Kun	199
CHEN, Jiatong	19	HUANG, Guan-Jhong	1, 101, 109, 311	LU, Te-Ling	1
CHEN, Long-Fang O.	9	HUANG, I-Jen	301	LUO, Peng	373
CHEN, R.Y.	33	HUANG, Po-Yuan	301	M	
CHEN, Tien-Tsai	281	HUANG, Shyh-Shyun	101, 311	MENG, Zhao-Ni	323
CHEN, W.	67	HUANG, Xitai	19	N	
CHEN, X.	67	HUNG, Hsin-Jung	101, 311	NEE, Cheng-Chu	215
CHEN, Xin	385	HUNG, Ting-Hsuan	49	NOREEN, Asma	343
CHENG, Kur-Ta	301	HWANG, Shih-Ying	9	O	
CHENG, Yun-Jiang	295	J		OU, Andi Shau-Mei	215
CHIEN, Chia-Chen	215	JIANG, Yun-Sheng	147	P	
CHOU, Fu-Shan	281	K		PENG, Ching-I	73, 83, 405
CHOU, Hui-Na	215	KAO, Ching Huei	335	Q	
CHOU, Tse-Heng	215	KEN, Chui-an-Fu	119	QI, Y.C.	33
CHUNG, Kuo-Fang	73, 405	KOFIDIS, George	363	QU, Jianjun	243
CHUNG, Mei-Chu	139	KONO, Yoshiko	73, 167, 405	S	
CONG, Yi-Yan	161	KOU, Cao	19	SAYLER, Ronald J.	25
CUI, Jun	351	KOU, Xiaojun	57	SHE, Xiao-Ping	323
D		KU, Shin-Ming	83, 167, 405	SHEN, Hao	253
DONG, F.P.	33	L		SHI, Y.	67
F		LAN, T.Y.	33	SHIH, Hsin Hui	277
FAN, Gai-En	295	LEE, Mei-Hsien	301	SONG, Liping	19
FAROOQ, M.	343	LEE, Nean	139	SONG, Wen-Qin	33, 93
FU, Chuen Hsu	277	LEE, Ya-Yun	25	SONG, Xi-Gui	323
FU, Fu-You	199	LEE, Yueh-Lun	301	SU, Hong-Ji	49
G		LEE, Yung-I	139	SUN, De-Ling	93
GAO, Xiaoxi	189	LEU, Sy-Jye	301	SUO, Anning	57
GAO, Yu-Bao	127	LI, D.W.	67		

T

TANG, Jianjun	385
TIAN, Shu-Zhen	161
TSAI, Chia-Hsin	49
TSAI, Yu-Hui	301
TSENG, Yu-Hsin	261
TSOU, Chao-Chia	9
TSOU, Chih-Hua	177

V

VIJAYAN, Kunjupillai	177
----------------------	-----

W

WAHID, Abdul	343
WANG, Chiu-Mei	73
WANG, Lian-Chin	25
WANG, Pi-Han	39
WANG, Yen-Ting	39

WANG, Zhangming	253
WANG, Zhongsheng	351
WEI, Xiao	147
WEN, I-Chia	109
WONG, Sin Yeng	393
WU, Ning	373
WU, Reng-Chao	295
WU, Shaw-Jye	25

X

XIE, Conghua	189
XU, Zhen	351

Y

YANG, Haibo	351
YANG, Qin-Er	287
YANG, Ruyi	385
YANG, Sheng-Zehn	155

YANG, Xiaoming	243
YANG, Yi-Yuan	301
YE, Wan-Hui	147, 253
YEH, Ching-Hui	25
YEUNG, Edward C.	139
YIRDAW, Eshetu	373

Z

ZHANG, Dai-Gui	287
ZHANG, Kai	199
ZHANG, Qian	385
ZHANG, Qiao-Ying	373
ZHANG, Shi-Bao	225
ZHANG, Yun-Chun	373
ZHAO, Qian-Chen	93
ZHENG, Zhi-Rong	127
ZHONG, Wei-Ran	199
ZHOU, Hao	19

Keyword Index to Volume 49

A		Chloroplast peptides	235
Abscisic acid	335	Chloroplasts	363
<i>Acmella brachyglossa</i>	73	Chromosome cytology	73
<i>Acmella ciliata</i>	73	Chromosome number	83, 167, 287, 405
<i>Acmella oleracea</i>	73	Chromosome painting	33
<i>Acmella paniculata</i>	73	Chung Hsing 'No.3'	215
<i>Acmella uliginosa</i>	73	Chung Hsing 'No.4'	215
<i>Actinidia deliciosa</i>	215	<i>Citrus</i>	295
<i>Actinidia setosa</i> 'No.9'	215	Cleaved amplified polymorphic sequence (CAPS)	295
AFLP	93	Clonal plant	373
Altitude	363	<i>Colletotrichum gloeosporioides</i>	39
<i>Amorphophallus albus</i> Liu & Wei	189	Compositae	73
Angiotensin converting enzyme (ACE)	101	Cost-benefit analysis	373
Antioxidant	9, 311	Cytoplasmic genome	295
Antioxidative enzyme	9	D	
Antiproliferative	311	Dark	323
<i>Antrodia camphorata</i>	119	Dehydroascorbate reductase	1
<i>Arabidopsis thaliana</i>	25	Dioecy	261
Araceae	393	Diurnal and seasonal change	127
Ascorbic acid content	215	DNA isolation	177
Asparaginyl endopeptidase	109	DNA sequencing	295
B		DPPH and soluble solids content	215
Balsaminaceae	161	Drought stress	373
<i>Begonia arachnoidea</i>	405	E	
<i>Begonia aurantiflora</i>	83	Ecological restoration	57
<i>Begonia daxinensis</i>	83	Embryo	139
<i>Begonia debaoensis</i>	83	Endangered species	147
<i>Begonia liuyanii</i>	405	Endemism	287
<i>Begonia luochengensis</i>	167	Endophytes	39
<i>Begonia pengii</i>	167	Evapotranspiration	351
<i>Begonia picturata</i>	167	<i>Ex situ</i> conservation	147
<i>Begonia</i> sect. <i>Coelocentrum</i>	167	Exobasidiaceae	277
<i>Begonia subcoriacea</i>	405	Expression	119
<i>Begonia umbraculifolia</i>	405	F	
<i>Begonia umbraculifolia</i> var. <i>flocculosa</i>	405	FISH	33
<i>Begonia variifolia</i>	167	Flavonoid	311
Begoniaceae	83, 167, 405	Flooding	9
Borneo	393	Flora	261
<i>Brassica napus</i>	199	Floral microcharacter	287
C		Flux partitioning	351
Cadmium	335	<i>Fragaria orientalis</i>	373
<i>Camellia nitidissima</i>	147	Free radical	311
<i>Camellia</i>	177	Freezing	19
<i>Caragan microphylla</i>	127	<i>Fusarium</i>	39
<i>Caragana davazamcii</i>	127	G	
<i>Caragana korshinskii</i>	127	GC/MS	67
Catalase	119	Gene family	199
Cauliflower (<i>Brassica oleracea</i> var. <i>botrytis</i>)	93	Genetic linkage map	93
Chimerism	235	Gentianaceae	155
China	83, 147, 161, 167, 405	<i>Ginkgo biloba</i>	33
Chinese herbal medicines	301		
Chlorophyll fluorescence	225, 235		

- Glandular hairs 363
Gordonia axillaris 277
 Growth rhythm 127
 Guangxi 83, 167, 405
- H**
- Heavy metal contaminated soil 385
 Hep3B 311
 Heterogeneous environment 373
 High temperature 335
 HLBB strain 49
 Huanglongbing 49
 Hydraulic conductance 127
Hydrocotyle 311
 Hydrogen peroxide 323
 Hyperphosphorylation 19
- I**
- IL-8 301
 Immunofluorescence microscopy 19
Impatiens fugongensis 161
Impatiens 161
 Internal transcribed spacer 277
 Invasive plant 253
 Invasive plants 73
 Invasive *Solidago Canadensis* 385
Ipomoea batatas (L.) Lam. 9
 Isoprene 67
 ISSR fingerprinting 147
 ITS 177
- K**
- Karyotype 167
- L**
- Leachate 343
 Leaf gas exchange 127
 Leaf structure 363
 Leaf traits 225
 Limestone flora 83, 167, 405
- M**
- MAPK kinase and CDP kinase 323
Meconopsis 225
 Microdissection 33
 Micromorphology 161
Mikania micrantha 253
 Mixture 385
 MMP-1,-2,-9 301
 Moisture content 243
 Molecular marker 189
 Monoculture 385
 Monodehydroascorbate reductase 1
 Monoterpenes 67
Muribasidiospora disease 277
- N**
- Native *Kummerowia striata* 385
 Naturalized plants 73
 NBS profiling 93
Nepeta nuda 363
 New species 83, 155, 161, 167, 281, 405
- O**
- Orchid 139
 Orchid Island 261
 Organogenesis 189
Oryza sativa 335
- P**
- Paclobutrazol 9
 Pathogenicity 49
 PCR error 177
 Pepsin 101
Pfu177
Phalaenopsis amabilis var. *formosa* 139
 Phosphate starvation 199
 Phosphorylation of histone H3 at serine10 19
 Photosynthesis 225
 Photosynthetic net CO₂ uptake 235
 Physiological adaptation 225
 Physiological indices 243
 Physiological integration 373
Pinus tabulaeformis Carr. 67
 Pollen tube 25
 Polyphenol 311
 Potential vegetation 57
 Protein synthesis 343
 Purple acid phosphatase 199
- Q**
- Quercus aquifolioides* 351
- R**
- RAPD 243
 Rare species 83, 167, 405
 Rheophytic 393
- S**
- Schismatoglottideae 393
 Season 363
 Secondary pollen presentation 253
 sect. *Coelocentrum* 83, 405
 Seed storage 243
 Seedcoat 161
 Seedling vigor 343
 Semiarid shrubland 351
 Senecioneae 287
 Sex chromosome 33
 Sexual system 261
 Signaling 343
 Siliques 109
 Simple sequence repeat (SSR) 295
Sinosenecio jishouensis 287

Index			423
Small population size	147	Transgenic <i>Arabidopsis</i>	109
Somaclonal variation	189	Trypsin inhibitor	101
Somatic hybrids	295	U	
<i>SPAE</i>	109	Ultra-dry	243
<i>Spilanthes</i>	73	<i>Urtica dioica</i> L.	235
Stable isotopes	351	V	
Stomatal closure	323	Vegetation deficient index	57
Stringent response	19	<i>Veronicastrum loshanense</i>	281
Sunflower	343	Vesicle tethering factor	25
Suspensor	139	Vessel size	127
Sweeping hairs	253	<i>Vicia faba</i>	323
Sweet potato storage roots	1	W	
Sweet potato	101, 109	Water transport	373
<i>Swertia changii</i>	155	Y	
<i>Swertia</i>	155	Yeast Vps53p protein	25
<i>Syncephalis oblique</i>	45	Yunnan	161
T		Z	
Taiwan	45, 155, 261, 277, 281	Zygomycetes	45
<i>Taq</i> polymerase	177	<i>Zygophyllum xanthoxylon</i>	243
Taxonomy	155, 277		
<i>Taxus mairei</i>	39		
Tephroseridinae	287		
The Loess Plateau	57		
Thioredoxin <i>h</i>	1		
Tip growth	25		

Table of Contents Volume 49

NUMBER 1**BIOCHEMISTRY**

- Sweet potato storage root thioredoxin *h2* with both dehydroascorbate reductase and monodehydroascorbate reductase activities**
Guan-Jhong HUANG, Hsien-Jung CHEN, Yuan-Shiun CHANG, Te-Ling LU, and Yaw-Huei LIN 1
- Paclobutrazol leads to enhanced antioxidative protection of sweetpotato under flooding stress**
Kuan-Hung LIN, Chao-Chia TSOU, Shih-Ying HWANG, Long-Fang O. CHEN, and Hsiao-Feng LO 9
PHYSIOLOGY
- Freezing wheat root tips causes hyperphosphorylation of histone H3 at serine10 in the cell during mitosis**
Liping SONG, Dengwen LI, Hao ZHOU, Ruming LIU, Cao KOU, Jiatong CHEN, and Xitai HUANG 19
- Arabidopsis *HIT1*, a putative homolog of yeast tethering protein Vps53p, is required for pollen tube elongation**
Lian-Chin WANG, Ching-Hui YEH, Ronald J. SAYLER, Ya-Yun LEE, Chung-An LU, and Shaw-Jye WU 25
CYTOGENETICS
- Microdissection and painting of the W chromosome in *Ginkgo biloba* showed different labelling patterns**
T. Y. LAN, R. Y. CHEN, X. L. LI, F. P. DONG, Y. C. QI, and W. Q. SONG 33

MICROBIOLOGY

- Endophytic fungi from *Taxus mairei* in Taiwan: first report of *Colletotrichum gloeosporioides* as an endophyte of *Taxus mairei***
Yen-Ting WANG, Hui-Shan LO, and Pi-Han WANG 39
- A new species of *Syncephalis* from Taiwan**
Hsiao-Man HO and Gerald L. BENNY 45

PLANT PATHOLOGY

- Strain identification and distribution of citrus Huanglongbing bacteria in Taiwan**
Chia-Hsin TSAI, Ting-Hsuan HUNG, and Hong-Ji SU 49

ECOLOGY

- Vegetation deficiency in a typical region of the Loess Plateau in China**
Anning SUO, Yong LIN, Jianping GE, and Xiaojun KOU 57
- Volatile organic compound emissions from urban trees in Shenyang, China**
D.W. LI, Y. SHI, X.Y. HE, W. CHEN, and X. CHEN 67

TAXONOMY

- Notes on *Acmella* (Asteraceae: Heliantheae) in Taiwan**
Kuo-Fang CHUNG, Yoshiko KONO, Chiu-Mei WANG, and Ching-I PENG 73
- Begonia aurantiflora* (sect. *Coelocentrum*, Begoniaceae), a new species from limestone areas in Guangxi, China**
Ching-I PENG, Yan LIU, and Shin-Ming KU 83
- Acknowledgements to Reviewers—Botanical Studies, 2007** i
- Instructions to Authors** ii

NUMBER 2

MOLECULAR BIOLOGY

A genetic linkage map based on AFLP and NBS markers in cauliflower (*Brassica oleracea* var. *botrytis*)

Yu GU, Qian-Chen ZHAO, De-Ling SUN, and Wen-Qin SONG 93

BIOCHEMISTRY

Sweet potato storage root trypsin inhibitor and their peptic hydrolysates exhibited angiotensin converting enzyme inhibitory activity *in vitro*

Guan-Jhong HUANG, Yu-Ling HO, Hsien-Jung CHEN, Yuan-Shiun CHANG, Shyh-Shyun HUANG, Hsin-Jung HUNG, and Yaw-Huei LIN 101

Expression of sweet potato asparaginyl endopeptidase caused altered phenotypic characteristics in transgenic *Arabidopsis*

Hsien-Jung CHEN, I-Chia WEN, Guan-Jhong HUANG, Wen-Chi HOU, and Yaw-Huei LIN 109

Biochemical characterization of a catalase from *Antrodia camphorata*: Expression in *Escherichia coli* and enzyme properties

Chuan-Fu KEN, Hsueh-Tai CHEN, Reny-Chang CHANG, and Chi-Tsai LIN 119

PHYSIOLOGY

Water relations, hydraulic conductance, and vessel features of three *Caragana* species in the Inner Mongolia Plateau of China

Jing LI, Yu-Bao GAO, Zhi-Rong ZHENG, and Zeng-Lu GAO 127

EMBRYOLOGY

Embryology of *Phalaenopsis amabilis* var. *formosa*: embryo developmentYung-I LEE, Edward C. YEUNG, Nean LEE, and Mei-Chu CHUNG 139
POPULATION GENETICS**Population genetic structure of *Camellia nitidissima* (Theaceae) and conservation implications**

Xiao WEI, Hong-Lin CAO, Yun-Sheng JIANG, Wan-Hui YE, Xue-Jun GE, and Feng LI 147

TAXONOMY

***Swertia changii* (Gentianaceae), a new species from southern Taiwan**

Chih-Hsiung CHEN, Chien-Fan CHEN, and Sheng-Zehn YANG 155

***Impatiens fugongensis* (Balsaminaceae), a new species from Yunnan, China**

Yi-Yan CONG, Ke-Ming LIU, Xiu-Zhen CAI, and Shu-Zhen TIAN 161

***Begonia pengii* (sect. *Coelocentrum*, Begoniaceae), a new species from limestone areas in Guangxi, China**

Shin-Ming KU, Yoshiko KONO, and Yan LIU 167

TECHNICAL REPORT

Technical report on the molecular phylogeny of *Camellia* with nrITS: the need of high quality DNA and PCR amplification with *Pfu*-DNA polymerase

Kunjupillai VIJAYAN and Chih-Hua TSOU 177

Instructions to Authors i

Erratum ii

NUMBER 3

MOLECULAR BIOLOGY

- Plant regeneration from petiole callus of *Amorphophallus albus* and analysis of somaclonal variation of regenerated plants by RAPD and ISSR markers**
Jianbin HU, Xiaoxi GAO, Jun LIU, Conghua XIE, and Jianwu LI 189

- Isolation, characterization and phosphate-starvation inducible expression of potential *Brassica napus* PURPLE ACID PHOSPHATASE 17 (*Bn*PAP17) gene family**
Kun LU, Jia-Na LI, Wei-Ran ZHONG, Kai ZHANG, Fu-You FU, and You-Rong CHAI 199

BIOCHEMISTRY

- Characterization of the physico-chemical and antioxidant properties of Taiwanese kiwifruit (*Actinidia setosa*)**
Hui-Na CHOU, Cheng-Chu NEE, Andi Shau-Mei OU, Tse-Heng CHOU, and Chia-Chen CHIEN 215

PHYSIOLOGY

- Photosynthetic adaptation of *Meconopsis integrifolia* Franch. and *M. horridula* var. *racemosa* Prain**
Shi-Bao ZHANG and Hong HU 225

- Photosynthetic characteristics of light-sensitive, chlorophyll-deficient leaves from sectorially chimeric stinging-nettle**
Fernando S. HENRIQUES 235

- A report on ultra-dry storage experiment of *Zygophyllum xanthoxylon* seeds**
Yi LI, Jianjun QU, Xiaoming YANG, and Lizhe AN 243

REPRODUCTIVE BIOLOGY

- Secondary pollen presentation and style morphology in the invasive weed *Mikania micrantha* in South China**
Lan HONG, Hao SHEN, Wanhui YE, Honglin CAO, and Zhangming WANG 253

- Incidences and ecological correlates of dioecious angiosperms in Taiwan and its outlying Orchid Island**
Yu-Hsin TSENG, Chang-Fu HSIEH, and Jer-Ming HU 261

MICROBIOLOGY

- Muribasidiospora gordoniae* sp. nov. occurring on *Gordonia axillaris* in Taiwan**
Huann Ju HSIEH, Chuen Hsu FU, and Hsin Hui SHIH 277

TAXONOMY

- A new Taiwan species *Veronicastrum loshanense* (Scrophulariaceae)**
Tien-Tsai CHEN and Fu-Shan CHOU 281

- Sinosenecio jishouensis* (Compositae), a new species from north-west Hunan, China**
Dai-Gui ZHANG, Ying LIU, and Qin-Er YANG 287

- Instructions to Authors** i

NUMBER 4

MOLECULAR BIOLOGY

- Analysis of mitochondrial genomes in *Citrus* interspecific somatic hybrids produced by protoplast fusion**
Wen-Wu GUO, Reng-Chao WU, Gai-En FAN, and Yun-Jiang CHENG 295

BIOCHEMISTRY

- The effect of Chinese herbal medicines on TNF- α induced matrix metalloproteinase-1, -9 activities and interleukin-8 secretion**
Mei-Hsien LEE, Yi-Yuan YANG, Yu-Hui TSAI, Yueh-Lun LEE, Po-Yuan HUANG, I-Jen HUANG, Kur-Ta CHENG, and Sy-Jye LEU 301

- Antioxidant and antiproliferative activities of the four *Hydrocotyle* species from Taiwan**
Shyh-Shyun HUANG, Guan-Jhong HUANG, Yu-Ling HO, Yaw-Huei LIN, Hsin-Jung HUNG, Tien-Ning CHANG, Man-Jau CHANG, Jial-Jhen CHEN, and Yuan-Shiun CHANG 311

PHYSIOLOGY

- MAPK kinase and CDP kinase modulate hydrogen peroxide levels during dark-induced stomatal closure in guard cells of *Vicia faba***
Xi-Gui SONG, Xiao-Ping SHE, Lin-Ying GUO, Zhao-Ni MENG, and Ai-Xia HUANG 323

- Distinct roles of abscisic acid in rice seedlings during cadmium stress at high temperature**
Yi Ting HSU and Ching Huei KAO 335

- Priming-induced metabolic changes in sunflower (*Helianthus annuus*) achenes improve germination and seedling growth**
Abdul WAHID, Asma NOREEN, Shahzad M.A. BASRA, Sadia GELANI, and M. FAROOQ 343

- Partitioning evapotranspiration flux components in a subalpine shrubland based on stable isotopic measurements**
Zhen XU, Haibo YANG, Fude LIU, Shuqing AN, Jun CUI, Zhongsheng WANG, and Shirong LIU 351

MORPHOLOGY

- Effects of altitude and season on glandular hairs and leaf structural traits of *Nepeta nuda* L.**
George KOFIDIS and Artemios M. BOSABALIDIS 363

ECOLOGY

- Clonal integration of *Fragaria orientalis* driven by contrasting water availability between adjacent patches**
Yun-Chun ZHANG, Qiao-Ying ZHANG, Eshetu YIRDAW, Peng LUO, and Ning WU 373

- Competitive interaction between the invasive *Solidago canadensis* and native *Kummerowia striata* in lead contaminated soil**
Qian ZHANG, Ruyi YANG, Jianjun TANG, and Xin CHEN 385

TAXONOMY

- Studies on Schismatoglottideae (Araceae) of Borneo VII: *Schottarum* and *Bakoa*, two new genera from Sarawak, Malaysian Borneo**
Peter C. BOYCE and Sin Yeng WONG 393

- Two new species of *Begonia* (sect. *Coelocentrum*, Begoniaceae) from limestone areas in Guangxi, China: *B. arachnoidea* and *B. subcoriacea***
Ching-I PENG, Shin-Ming KU, Yoshiko KONO, Kuo-Fang CHUNG, and Yan LIU 405

- Author Index to Volume 49** 419

Keyword Index to Volume 49	421
Instructions to Authors	i
Erratum	ii