

Volume 171, issue 11, 1 July 2014, ISSN 0176-1617

Volume 171

11

2014

# JOURNAL OF PLANT PHYSIOLOGY

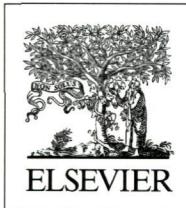
Biochemistry, Physiology, Molecular Biology and Functional Biotechnology of Plants



In Affiliation with FESPB

◆ [www.elsevier.com/locate/jplph](http://www.elsevier.com/locate/jplph)





## Contents

### PHYSIOLOGY

Two novel phytotoxic substances from <i>Leucas aspera</i> A.K.M.M. Islam, O. Ohno, K. Suenaga, H. Kato-Noguchi	877
ACC deaminase-containing <i>Arthrobacter protophormiae</i> induces NaCl stress tolerance through reduced ACC oxidase activity and ethylene production resulting in improved nodulation and mycorrhization in <i>Pisum sativum</i> D. Barnawal, N. Bharti, D. Maji, C.S. Chanotiya, A. Kalra	884
Stress enhances the gene expression and enzyme activity of phenylalanine ammonia-lyase and the endogenous content of salicylic acid to induce flowering in <i>Pharbitis</i> K.C. Wada, K. Mizuuchi, A. Koshio, K. Kaneko, T. Mitsui, K. Takeno	895
Characterization and responses to environmental cues of a photosynthetic antenna-deficient mutant of the filamentous cyanobacterium <i>Anabaena</i> sp. PCC 7120 F. Leganés, F. Martínez-Granero, M.Á. Muñoz-Martín, E. Marco, A. Jorge, L. Carvajal, T. Vida, M. González-Pleiter, F. Fernández-Piñas	915
Treatment of <i>Amaranthus cruentus</i> with chemical and biological inducers of resistance has contrasting effects on fitness and protection against compatible Gram positive and Gram negative bacterial pathogens K. Casarrubias-Castillo, N.A. Martínez-Gallardo, J.P. Délanoy-Frier	927
Fructan metabolism and expression of genes coding fructan metabolic enzymes during cold acclimation and overwintering in timothy ( <i>Phleum pratense</i> ) K.-i. Tamura, Y. Sanada, K. Tase, M. Yoshida	951
The tomato phosphatidylinositol-phospholipase C2 (S/PLC2) is required for defense gene induction by the fungal elicitor xylanase G. Gonorazky, L. Ramirez, A. Abd-El-Haliem, J.H. Vossen, L. Lamattina, A. ten Have, M.H.A.J. Joosten, A.M. Laxalt	959
GA <sub>4</sub> and IAA were involved in the morphogenesis and development of flowers in <i>Agapanthus praecox</i> ssp. <i>orientalis</i> D. Zhang, L. Ren, J.-h. Yue, L. Wang, L.-h. Zhuo, X.-h. Shen	966

### MOLECULAR BIOLOGY

The dihydrolipoyl acyltransferase gene BCE2 participates in basal resistance against <i>Phytophthora infestans</i> in potato and <i>Nicotiana benthamiana</i> H. Wang, C. Sun, R. Jiang, Q. He, Y. Yang, Z. Tian, Z. Tian, C. Xie	907
--	-----

### FUNCTIONAL BIOTECHNOLOGY

Multistep involvement of glutathione with salicylic acid and ethylene to combat environmental stress S. Ghanta, R. Datta, D. Bhattacharyya, R. Sinha, D. Kumar, S. Hazra, A.B. Mazumdar, S. Chattopadhyay	940
--	-----

### SHORT COMMUNICATION

The presence of soluble carbonic anhydrase in the thylakoid lumen of chloroplasts from <i>Arabidopsis</i> leaves T. Fedorchuk, N. Rudenko, L. Ignatova, B. Ivanov	903
--	-----

Table of Contents also available via e-mail by free-of-charge **ToC Alert Service**.

Register: [www.elsevier.com/locate/jplph](http://www.elsevier.com/locate/jplph)

#### Abstracted/Index in

Biochemistry & Biophysics Citation Index; Bioscience Information System (BIOSIS); CAB Abstracts; Cambridge Scientific Abstracts (CSA); Chemical Abstracts Service (CAS); Current Awareness in Biological Sciences (CABS); Current Contents/Life Sciences; Current Contents/Agriculture, Biology & Environmental Sciences; Engineering Information/Compendex (CPX); Food Science and Technology Abstracts (FSTA); MEDLINE; Reference Update; Research Alert; Science Citation Index; SciExpanded; SciSearch. Also covered in the abstract and citation database Scopus®. Full text available on ScienceDirect®.