1. Record Nr. UNINA9910298444403321

Titolo	Molecular Physiology and Ecophysiology of Sulfur / / edited by Luit J. De Kok, Malcolm J. Hawkesford, Heinz Rennenberg, Kazuki Saito, Ewald Schnug
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-20137-9
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (263 p.)
Collana	Proceedings of the International Plant Sulfur Workshop, , 2451-9081
Disciplina	581.24
Soggetti	Plant physiology Botanical chemistry Plant ecology Plant Physiology Plant Biochemistry Plant Ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Foreword: The Value of Sulfur for Grapevine -- Partitioning of Sulfur between Primary and Secondary Metabolism -- Significance of Long-Distance Transport -- GSH Partitioning between the Nucleus and Cytosol in Arabidopsis thaliana -- Sulfur Metabolism in Hemiascomycetes Yeast -- Small World: A Plant Perspective on Human Sulfate Activatio -- Auxin Response Factors and AUX/IAA Proteins Potentially Control –S Responsive Expression of SULTR1;1 -- SULTR1;2 in S Nutrient-Status Control in Arabidopsis -- Comparison of Nitrite Reductase (AcNiR1) with Sulfite Reductase (AcSiR1) in Allium cepa (L.) -- Metabolic Analysis of Sulfur Metabolism During Developmental Leaf Senescence -- Apoplastic Iron Concentration in Maize Roots Grown under Sulfate Deprivation -- Suitability of the Ratio Between Reduced and Oxidized Glutathione as an Indicator for Plant Stress -- OAS Cluster Genes: A Tightly Co-Regulated Network -- More Than a Substrate: The O-Acetylserine Responsive Transcriptome -- The CBL-SNRK3 Network – Connections to Sulfur Metabolism.Hydrogen Sulfide

and Its Reactive Friends: The Interplay With Reactive Oxygen Species and Nitric Oxide Signalling -- Investigation of Protein-Protein Interaction of Ferredoxin and Sulfite Reductase under Different Sodium Chloride Concentrations by NMR Spectroscopy and Isothermal Titration Calorimetry -- Prospective Post-Translational Regulation of Plant Sulfite Oxidasem -- Identification of the Genes for Intracellular Glutathione Degradation in Arabidopsis thaliana -- Altered Regulation of Myb Genes changes the Aliphatic Glucosinolate Accumulation under Long-Term Sulfur Deficiency in Arabidopsis -- Identification of Genes Potentially Encoding S-Oxygenation Enzymes for the Biosynthesis of S-Alk(en)yl-L-Cysteine Sulfoxides in Onion -- Determining Sulfur-Limiting Conditions for Studies of Seed Composition in Common Bean (Phaseolus vulgaris) -- Effect of an Alfalfa Plant-Derived Biostimulant on Sulfur Nutrition in Tomato Plants -- Effect of Sulfur andNod Factors (LCOs) on Some Physiological Features and Yielding of Pea (Pisum sativum L.) -- The Impact of Sulfate Salinity on the Uptake and Metabolism of Sulfur in Chinese Cabbage -- Identification and Distribution of Selenium-Containing Glucosinolate Analogues in Tissues of Three Brassicaceae Species -- Selenate Differentially Alters the Content of Glucosinolates in Eruca Sativa and Diplotaxis Tenuifolia Grown in Soil -- Effects of Glutathione Concentration in Root Zone and Glutathione Treatment Period on Cadmium Behaviors in Oilseed Rape Plants.

Sommario/riassunto

This proceedings volume contains a selection of invited and contributed papers of the 9th International Workshop on Sulfur Metabolism in Plants, which was hosted by the Albert-Ludwigs-University Freiburg and held at Schloss Reinach, Freiburg-Munzigen, Germany from April 14-17, 2014. The focus of this workshop was on molecular physiology and ecophysiology of sulfur in plants, and the content of this volume presents an overview on the current research developments in this field. The volume covers various aspects of the regulation of sulfate uptake and assimilation in plants, from a cellular to a whole plant level. The significance of sulfur metabolism in plant response to environmental stress is discussed in detail.