1. Record Nr. UNINA9910298320403321

Titolo	Nitric Oxide in Plants: Metabolism and Role in Stress Physiology / / edited by M. Nasir Khan, Mohammad Mobin, Firoz Mohammad, Francisco J. Corpas
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-06710-9
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (310 p.)
Disciplina	570 571.2 571.9453 572572
Soggetti	Plant physiology Plant biochemistry Oxidative stress Plant Physiology Plant Biochemistry Oxidative Stress
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	An Update to the Understanding of Nitric Oxide Metabolism in Plants -- Biosynthesis of Nitric Oxide in Plants -- Function of Peroxisomes as a Cellular Source of Nitric Oxide and Other Reactive Nitrogen Species -- Role of Plant Mitochondria in Nitric Oxide Homeostasis During Oxygen Deficiency -- Production of Nitric Oxide by Marine Unicellular Red Tide Phytoplankton, Chattonella marina -- Identification of Nitrosylated Proteins (SNO) and Applications in Plants -- Nitric Oxide: Detection Methods and Possible Roles During Jasmonate-regulated Stress Response -- S-Nitrosoglutathionereductase: Key Regulator of Plant Development and Stress Response -- Nitro-Fatty Acids: Synthesis, Properties and Role in Biological System -- Nitric Oxide and Reactive Nitrogen Species -- Nitric Oxide and Other Signaling Molecules: A

	Cross Talk in Response to Abiotic Stress -- Cytoprotective Role of Nitric Oxide under Oxidative Stress -- Phytohormones and Nitric Oxide Interactions During Abiotic Stress Responses -- Tolerance of Plants to Abiotic Stress: A Role of Nitric Oxide and Calcium -- Abiotic Stress Tolerance in Plants: Exploring the Role of Nitric Oxide and Humic Substances -- Nitric Oxide in Relation to Plant Signaling and Defense Responses -- The Role of Nitric Oxide in Programmed Cell Death in Higher Plants.
Sommario/riassunto	This book covers the key features of nitric oxide (NO) in plants. Comprising nine chapters, Part I highlights its metabolism and identification in plants. Part II, which consists of eight chapters, focuses on the chemical, physical and biochemical properties of the NO molecule and its derivatives; on its functional role and mode of action; and on its signaling and interaction with phytohormones, mineral nutrients, biomolecules, ions and ion channels in plants under abiotic stresses. Combining the expertise of leading researchers in the field, the book provides a concise overview of plant NO biology and offers a valuable reference work.