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Collana	Advances in photosynthesis and respiration ; ; v. 12
Altri autori (Persone)	FoyerChristine H NoctorGraham
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Photosynthetic Nitrogen Assimilation: Inter-Pathway Control and Signaling -- Photosynthesis and Nitrogen-Use Efficiency -- Molecular Control of Nitrate Reductase and Other Enzymes Involved in Nitrate Assimilation -- Soluble and Plasma Membrane-bound Enzymes Involved in Nitrate and Nitrite Metabolism -- What Limits Nitrate Reduction in Leaves? -- The Biochemistry, Molecular Biology, and Genetic Manipulation of Primary Ammonia Assimilation -- Regulation of Ammonium Assimilation in Cyanobacteria -- Photorespiratory Carbon and Nitrogen Cycling: Evidence from Studies of Mutant and Transgenic Plants -- The Regulation of Plant Phosphoenolpyruvate Carboxylase by Reversible Phosphorylation -- Mitochondrial Functions in the Light and Significance to Carbon-Nitrogen Interactions -- Alternative Oxidase: Integrating Carbon Metabolism and Electron Transport in Plant Respiration -- Nitric Oxide Synthesis by Plants and its Potential Impact on Nitrogen and Respiratory Metabolism -- Nitrogen and Signaling -- Regulation of Carbon and Nitrogen Assimilation Through Gene Expression -- Intracellular And Intercellular

Transport Of Nitrogen And Carbon -- Optimizing Carbon-Nitrogen Budgets: Perspectives for Crop Improvement.

Sommario/riassunto

According to many textbooks, carbohydrates are the photosynthesis and mitochondrial respiration fluctuate in a circadian manner in almost every unique final products of plant photosynthesis. However, the photoautotrophic production of organic organism studied. In addition, external triggers and environmental influences necessitate precise and nitrogenous compounds may be just as old, in appropriate re-adjustment of relative flux rates, to evolutionary terms, as carbohydrate synthesis. In the algae and plants of today, the light-driven assimilation prevent excessive swings in energy/resource provision of nitrogen remains a key function, operating and use. This requires integrated control of the alongside and intermeshing with photosynthesis and expression and activity of numerous key enzymes in respiration. Photosynthetic production of reduced photosynthetic and respiratory pathways, in order to carbon and its reoxidation in respiration are necessary co-ordinate carbon partioning and nitrogen assim- ation. to produce both the energy and the carbon skeletons required for the incorporation of inorganic nitrogen This volume has two principal aims. The first is to into amino acids. Conversely, nitrogen assimilation provide a comprehensive account of the very latest developments in our understanding of how green is required to sustain the output of organic carbon cells reductively incorporate nitrate and ammonium and nitrogen. Together, the sugars and amino acids into the organic compounds required for growth.