

# Contents

## Part I Review

<b>A Half-Century Adventure in the Dynamics of Living Systems</b> .....	3
Michel Thellier	

## Part II Genetics

<b>To Divide and to Rule; Regulating Cell Division in Roots During Post-embryonic Growth</b> .....	57
Luis Sanz, James A.H. Murray, and Walter Dewitte	
<b>Metabolic Engineering of Cyanobacteria for Direct Conversion of CO<sub>2</sub> to Hydrocarbon Biofuels</b> .....	81
Christer Jansson	

## Part III Physiology

<b>Interaction Between Salinity and Elevated CO<sub>2</sub>: A Physiological Approach</b> .....	97
Usue Pérez-López, Amaia Mena-Petite, and Alberto Muñoz-Ruedaa	
<b>Mechanisms of Cd Hyperaccumulation and Detoxification in Heavy Metal Hyperaccumulators: How Plants Cope with Cd</b> .....	127
Rong-Liang Qiu, Ye-Tao Tang, Xiao-Wen Zeng, Palaniswamy Thangavel, Lu Tang, Yuan-Yuan Gan, Rong-Rong Gan, and Shi-Zhong Wang	

<b>Long-Distance Transport and Plant Internal Cycling of N- and S-Compounds</b> .....	161
Cornelia Herschbach, Arthur Gessler, and Heinz Rennenberg	
<b>Blue-Light-Activated Chloroplast Movements: Progress in the Last Decade</b> .....	189
Halina Gabryś	
<b>Role of Chloroplast Thylakoid Lumen in Photosynthetic Regulation and Plant Cell Signaling</b> .....	207
Cornelia Spetea Wiklund	
<b>Connecting Environmental Stimuli and Crassulacean Acid Metabolism Expression: Phytohormones and Other Signaling Molecules</b> .....	231
Luciano Freschi and Helenice Mercier	
 <b>Part IV Systematics</b>	
<b>Systematics of the Green Algae: A Brief Introduction to the Current Status</b> .....	259
Thomas Friedl and Nataliya Rybalka	
 <b>Part V Ecology</b>	
<b>Secondary Lichen Compounds as Protection Against Excess Solar Radiation and Herbivores</b> .....	283
Knut Asbjørn Solhaug and Yngvar Gauslaa	
<b>Index</b> .....	305

Progress in Botany Vol. 73

Lüttge, U.; Beyschlag, W.; Büdel, B.; Francis, D. (Eds.)

2012, XII, 312 p., Hardcover

ISBN: 978-3-642-22745-5