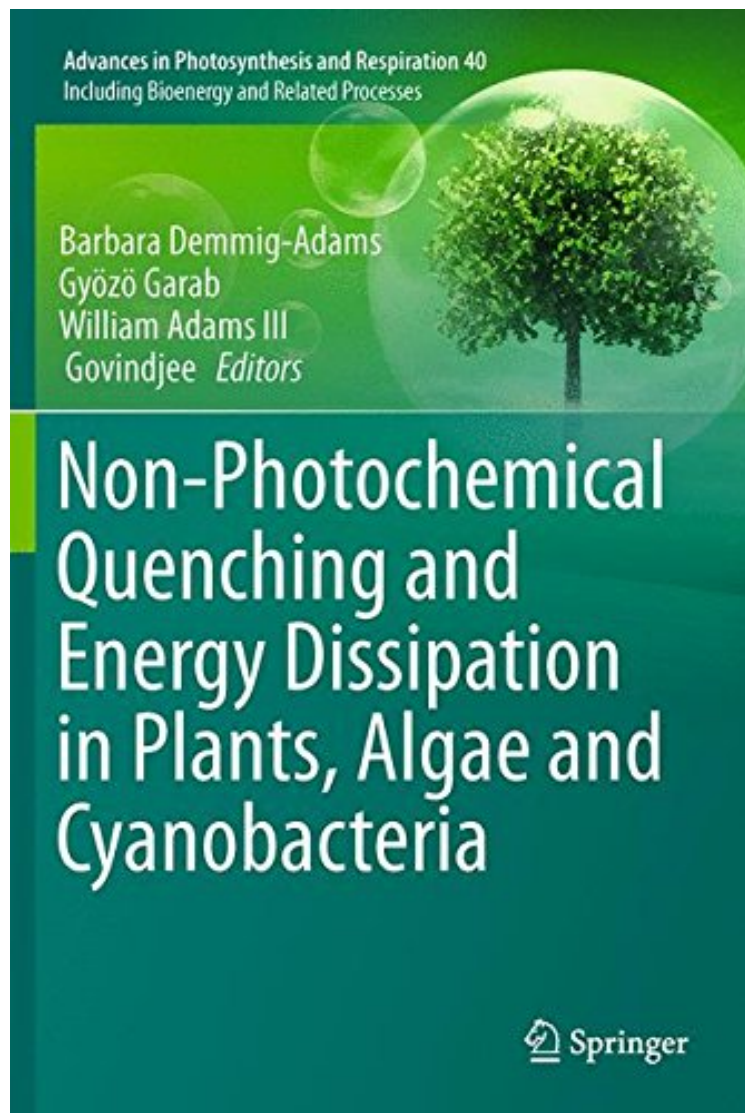


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it would be worth my time, and all praised Non-Photochemical Quenching and Energy Dissipation in Plants, Algae and Cyanobacteria (Advances in Photosynthesis and Respiration):

Harnessing the sun's energy via photosynthesis is at the core of sustainable production of food, fuel, and materials by plants, algae, and cyanobacteria. Photosynthesis depends on photoprotection against intense sunlight, starting with the safe removal of excess excitation energy from the light-harvesting system, which can be quickly and non-destructively assessed via non-photochemical quenching of chlorophyll fluorescence (NPQ). By placing NPQ into the context of whole-organism function, this book aims to contribute towards identification of plant and algal lines with superior stress resistance and productivity. By addressing agreements and open questions concerning photoprotection's molecular mechanisms, this book contributes towards development of artificial photosynthetic systems. A comprehensive picture from single molecules to organisms in ecosystems, and from leading experts' views to practical information for non-specialists on NPQ measurement and terminology is presented.

The editors are to be complimented now for compiling such a comprehensive collection of wisdom on energy dissipation in photosynthetic organisms. The library of any institution committed to teaching frontline plant biology provide access to this book for graduate students, postdocs, and research leaders. Moreover, it is indispensable for any laboratory engaged in next generation research in photosynthesis. (Barry Osmond, *Photosynthesis Research*, Vol. 24, 2015)

From the Back Cover: Harnessing the sun's energy via photosynthesis is at the core of sustainable production of food, fuel, and materials by plants, algae, and cyanobacteria. Photosynthesis depends on protection (photoprotection) against the perils of intense sunlight. The first line of defense among a cascade of photoprotective mechanisms is the safe removal of excess excitation energy within the light-harvesting system. The widely used indicator for photoprotective energy dissipation (thermal de-excitation of excited-state chlorophyll) is the quick, facile, and non-destructive assessment of non-photochemical quenching of chlorophyll fluorescence (NPQ). By placing light harvesting and photoprotection into the context of whole-organism function, this book directs the use of NPQ to aid in the identification of plant and algal lines with superior stress resistance and productivity. Furthermore, this volume addresses open questions in the interpretation of the molecular mechanisms of light harvesting and energy dissipation, the resolution of which should aid in the development of artificial photosynthetic systems. A comprehensive picture from theory to practice, and from single molecules to organisms in ecosystems is presented. In addition to providing current views of the leading specialists in this area, this book includes basic and practical information for non-specialists. For example, this book critically examines uses and misuses of the term NPQ and of advantages and pitfalls of NPQ measurements, and presents concrete recommendations for all concerned.