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Nota di contenuto	Dynamic Studies in Biology Phototriggers, Photoswitches and Caged Biomolecules; Contents; Foreword; Preface; List of Authors; 1 Photoremovable Protecting Groups Used for the Caging of Biomolecules; 1.1 2-Nitrobenzyl and 7-Nitroindoline Derivatives; 1.1.1 Introduction; 1.1.1.1 Preamble and Scope of the Review; 1.1.1.2 Historical Perspective; 1.1.2 Synthetic Considerations; 1.1.3 Survey of Individual Caged Compounds and Caging Groups; 1.1.3.1 2-Nitrobenzyl Cages; 1.1.3.1.1 Mechanistic Aspects of Photocleavage and By-Product Reactions of 2-Nitrobenzyl Cages 1.1.3.1.2 Representative Survey of Nitrobenzyl-Caged Compounds1. 1.3.2 7-Nitroindoline Cages; 1.1.3.2.1 Mechanistic and Structural Aspects of Photochemical Cleavage of 1-Acyl-7-nitroindolines; 1.1.3.2.2 Survey of 7-Nitroindoline Caged Compounds; 1.1.4 Conclusion; References; 1.2 Coumarin-4-ylmethyl Phototriggers; 1.2.1 Introduction; 1.2.2 Spectroscopic and Photochemical Properties; 1.2.2.1 Overview; 1.2.2.2 Phototriggers; 1.2.2.2.1 MCM Groups: 7-Alkoxy-

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Sommario/riassunto

With contributions by more than 30 expert researchers, this handbook covers the whole spectrum from chemistry to cell biology and from theory to application. In so doing, it deals with a broad range of topics from the chemistry and biophysics of caged compounds to their application in time-resolved studies, comparing the properties of different caging groups. The authors describe in detail light-activation of proteins as well as nucleic acids, while a special section is devoted to multiphoton phototriggers. A must-have for every biochemist, biophysicist and molecular biologist developing an