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Nota di contenuto	cis-trans Isomerization in Biochemistry; Contents; Preface; List of Contributors; 1 Nomenclature; 2 General Mechanisms of Cis-Trans Isomerization: A Rapid Survey; 2.1 Introduction; 2.2 Homolytic Cis-Trans Isomerization; 2.3 Heterolytic Cis-Trans Isomerization; 3 Mechanisms of Cis-Trans Isomerization around the Carbon-Carbon Double Bonds via the Triplet State; 3.1 A Concept of a Triplet-Excited Region; 3.2 Triplet-State Isomerization in Retinal; 3.2.1 Cis-Trans Isomerization Examined by Electronic Absorption and Raman Spectroscopies and by High-Performance Liquid Chromatography Analysis 3.2.2 Triplet-Excited Region in All-trans-Retinal Shown in Terms of Stretching Force Constants Determined by Raman Spectroscopy and Normal Coordinate Analysis [9]3.2.3 Dynamic Triplet-Excited Region in Retinal As Revealed by Deuteration Effects on the Quantum Yields of Isomerization via the T(1) State (Okumura, Koyama, unpublished results); 3.2.4 Summary and Future Trends; 3.3 Triplet-State

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3.3.4 Conformational Changes and the Inversion of Spin-Polarization Identified by Low-Temperature Electron Paramagnetic Resonance Spectroscopy of the Reaction Center-Bound 15-cis-Spheroidene: A Hypothetical Mechanism of Triplet-Energy Dissipation [19]
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4 Retinal Binding Proteins
4.1 Retinal Chromophore in Rhodopsins;
4.1.1 Specific Color Regulation of the Retinal Chromophore in Protein;
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Sommario/riassunto

Collating the knowledge from over 20,000 publications in chemistry, biology and nanotechnology, this handbook is the first to comprehensively present the state of the art in one ready reference. A team of international authors connects the various disciplines involved, covering cis-trans isomerization of double bonds and pseudo-double bonds, as well as other cis-trans isomerizations. For biochemists, organic chemists, physicochemists, photochemists, polymer and medicinal chemists.
