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	Titolo	MATHEMATICAL foundations of software development : proceedings of the International Joint Conference on Theory and practice of software development (TAPSOFT) Berlin, March 25-29, 1985 / edited by Hartmut Ehrig ... [e altri]
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Nota di contenuto	Cover; Title Page; Copyright; Contents; List of Contributors; Preface; Chapter 1 Structural Studies of Oxomanganese Complexes for Water Oxidation Catalysis; 1.1 Introduction; 1.2 Structural Studies of the OEC; 1.3 The Dark-Stable State of the OEC; 1.4 Biomimetic Oxomanganese Complexes; 1.5 Base-Assisted O-O Bond Formation; 1.6 Biomimetic Mn Catalysts for Artificial Photosynthesis; 1.7 Conclusion; Acknowledgments; References; Chapter 2 O-O Bond Formation by a Heme Protein: The Unexpected Efficiency of Chlorite Dismutase; 2.1 Introduction; 2.2 Origins of O2-Evolving Chlorite Dismutases (Clds) 2.3 Major Structural Features of the Proteins and their Active Sites2.4 Efficiency, Specificity, and Stability; 2.5 Mechanistic Insights from Surrogate Reactions with Peracids and Peroxide; 2.6 Possible Mechanisms; 2.7 Conclusion; Acknowledgements; References; Chapter 3 Ru-Based Water Oxidation Catalysts; 3.1 Introduction; 3.2 Proton-Coupled Electron Transfer (PCET) and Water Oxidation Thermodynamics; 3.3 O-O Bond Formation Mechanisms; 3.4 Polynuclear Ru Water Oxidation Catalysts; 3.5 Mononuclear Ru WOCs;

Sommario/riassunto

Photocatalytic water splitting is a promising strategy for capturing energy from the sun by coupling light harvesting and the oxidation of water, in order to create clean hydrogen fuel. Thus a deep knowledge of the water oxidation catalysis field is essential to be able to come up with useful energy conversion devices based on sunlight and water splitting. Molecular Water Oxidation Catalysis: A Key Topic for New Sustainable Energy Conversion Schemes presents a comprehensive and state-of-the-art overview of water oxidation catalysis in homogeneous phase, describing in detail the most importan