

1. Record Nr.	UNINA9910139594703321
Titolo	Copper-oxygen chemistry // edited by Kenneth D. Karlin, Shinobu Itoh
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2011
ISBN	1-283-25785-8 9786613257857 1-118-09435-2 1-118-09436-0 1-118-09434-4
Edizione	[1st ed.]
Descrizione fisica	1 online resource (484 p.)
Collana	Wiley series of reactive intermediates in chemistry and biology ; ; v. 4
Classificazione	SCI007000
Altri autori (Persone)	KarlinKenneth D. <1948-> ItohShinobu
Disciplina	612.3/924
Soggetti	Copper proteins Copper - Peroxidation Bioinorganic chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	COPPER-OXYGEN CHEMISTRY; CONTENTS; Preface to Series; Introduction; Contributors; 1 Insights into the Proposed Copper-Oxygen Intermediates that Regulate the Mechanism of Reactions Catalyzed by Dopamine $\beta$ -Monooxygenase, Peptidylglycine $\alpha$ -Hydroxylating Monooxygenase, and Tyramine $\beta$ -Monooxygenase; 2 Copper Dioxygenases; 3 Amine Oxidase and Galactose Oxidase; 4 Energy Conversion and Conservation by Cytochrome Oxidases; 5 Multicopper Proteins; 6 Structure and Reactivity of Copper-Oxygen Species Revealed by Competitive Oxygen-18 Isotope Effects 7 Theoretical Aspects of Dioxygen Activation in Dicopper Enzymes8 Chemical Reactivity of Copper Active-Oxygen Complexes; 9 Cytochrome c Oxidase and Models; 10 Supramolecular Copper Dioxygen Chemistry; 11 Organic Synthetic Methods Using Copper Oxygen Chemistry; Index; Colour Plates
Sommario/riassunto	"This newest volume in the Wiley Series on Reactive Intermediates in Chemistry and Biology deals with the subject of oxidative processes

mediated by copper ions within biological systems. The book addresses the significantly increasing literature on oxygen-atom insertion and carbon-carbon bond forming reactions as well as enantioselective oxidation chemistries. It covers a wide array of reaction types such as insertion and dehydrogenation reactions that utilize the cheap, abundant, and energy-containing the O<sub>2</sub> molecule and progresses from biological systems to spectroscopy and related theory to bioinorganic models and applications"--

"This book is divided into three logical areas within the topic of Copper/Oxygen Chemistry: Biological Systems, Spectroscopy and Theory, and Bioinorganic Models and Applications"--

---