Record Nr. UNINA9910877983403321 Ideas in chemistry and molecular sciences Where chemistry meets life / **Titolo** / edited by Bruno Pignataro Pubbl/distr/stampa Weinheim,: Wiley-VCH, 2010 **ISBN** 1-283-14048-9 9786613140487 3-527-63051-1 3-527-63052-X Edizione [1st ed.] Descrizione fisica 1 online resource (359 p.) Altri autori (Persone) PignataroBruno Disciplina 541.22 Soggetti Molecular theory Chemistry - Social aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Ideas in Chemistry and Molecular Sciences; Contents; 5.2.6.1 Streptavidin-Biotin; Preface; List of Contributors; Part I Biochemical Studies; 1 The Role of Copper Ion and the Ubiquitin System in Neurodegenerative Disorders; 1.1 Introduction; 1.2 Metal lons in the Brain; 1.3 Brain Copper Homeostasis; 1.4 Brain Copper and Neurodegenerative Disorders: 1.5 The Role of Ubiquitin in Protein Degradation: 1.6 Failure of the Ubiquitin System in Neurodegenerative Disorders: 1.7 Interaction of Ubiquitin with Metal Ions: 1.7.1 Thermal Stability of Ubiquitin 1.7.2 Spectroscopic Characterization of Cull Binding1.7.3 Possible Implications for the Polyubiquitination Process; 1.7.4 Cull-Induced Self-Oligomerization of Ub: 1.7.5 Cooperativity between Cull-Binding and Solvent Polarity: 1.7.6 Comparison with Other Metal Ions: 1.8 Biological Implications: 1.8.1 The Redox State of Cellular Copper: 1.8.2 Ubiquitin and Phospholipids: 1.9 Conclusions and Perspectives: Acknowledgments: References: 2 The Bioinorganic and Organometallic Chemistry of Copper(III); 2.1 Introduction; 2.2 Bioinorganic Implications of Copper(III) 2.2.1 Dinuclear Type-3 Copper Enzymes2.2.2 Particulate Methano

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## Sommario/riassunto

Ideas in Chemistry and Molecular Sciences gives an account of the most recent results of research in life sciences in Europe based on a selection of leading young scientists participating in the 2008 European Young Chemists Award competition. In addition to this, the authors provide the state of the art of their field of research and the perspective or preview of future directions.