

| | |
|-------------------------|--|
| 1. Record Nr. | UNINA9910828616703321 |
| Titolo | Iron-sulfur clusters in chemistry and biology // edited by Tracey Rouault |
| Pubbl/distr/stampa | Berlin, [Germany] ; ; Boston, [Massachusetts] : , : De Gruyter, , 2017 ©2017 |
| ISBN | 3-11-047855-2 |
| Edizione | [2. Aufl.] |
| Descrizione fisica | 1 online resource (466 pages) : illustrations |
| Collana | Iron-Sulfur Clusters in Chemistry and Biology ; ; Volume 1 |
| Disciplina | 612.3/924 |
| Soggetti | Trace elements in nutrition |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Frontmatter -- Preface -- Tracey A. Rouault biography -- Contents -- List of contributing authors -- 1. Iron-sulfur proteins: a historical perspective / Bonomi, Francesco / Rouault, Tracey A. -- 2. Chemistry of iron-sulfur clusters / Ichiye, Toshiko -- 3. From the quantum chemistry of iron-sulfur clusters to redox energetics and reaction pathways in metalloenzymes / Noodleman, Louis -- 4. Bioinorganic spectroscopy of iron sulfur proteins- an overview / Guo, Yisong / Li, Jikun -- 5. Quantitative interpretation of EPR spectroscopy with applications for iron-sulfur proteins / Petasis, Doros T. / Hendrich, Michael P. -- 6. The utility of Mössbauer spectroscopy in eukaryotic cell biology and animal physiology / Chakrabarti, Mrinmoy / Lindahl, Paul A. -- 7. The interstitial carbide of the nitrogenase M-cluster: insertion pathway and possible function / Sickerman, Nathaniel S. / Ribbe, Markus / Hu, Yilin -- 8. The iron-molybdenum cofactor of nitrogenase / Spatzal, Thomas / Andrade, Susana L. A. / Einsle, Oliver -- 9. Biotin synthase: a role for iron-sulfur clusters in the radical-mediated generation of carbon-sulfur bonds / Jarrett, Joseph T. -- 10. Molybdenum-containing iron-sulfur enzymes / Hille, Russ -- 11. The role of iron-sulfur clusters in the biosynthesis of the lipoyl cofactor / Lanz, Nicholas D. / Booker, Squire J. -- 12. Iron-sulfur clusters and molecular oxygen: function, adaptation, degradation, and repair / Nicolet, Yvain / Fontecilla-Camps, Juan C. -- 13. Reactivity of iron-sulfur clusters with nitric oxide / Dodd, Erin L. / Crack, Jason C. / |

Sommario/riassunto

This volume on iron-sulfur proteins includes chapters that describe the initial discovery of iron-sulfur proteins in the 1960s to elucidation of the roles of iron sulfur clusters as prosthetic groups of enzymes, such as the citric acid cycle enzyme, aconitase, and numerous other proteins, ranging from nitrogenase to DNA repair proteins. The capacity of iron sulfur clusters to accept and delocalize single electrons is explained by basic chemical principles, which illustrate why iron sulfur proteins are uniquely suitable for electron transport and other activities. Techniques used for detection and stabilization of iron-sulfur clusters, including EPR and Mossbauer spectroscopies, are discussed because they are important for characterizing unrecognized and elusive iron sulfur proteins. Recent insights into how nitrogenase works have arisen from multiple advances, described here, including studies of high-resolution crystal structures.

2. **Record Nr.**

UNINA9910861063403321

Autore

Scrofani Jim

Titolo

Naval ISR Fusion Principles, Operations, and Technologies

Pubbl/distr/stampaNorwood : , : Artech House, , 2023
©2023**ISBN**9781630818951
9781630818944**Edizione**

[1st ed.]

Descrizione fisica

1 online resource (249 pages)

Altri autori (Persone)MimihJihane
WilliamsonWill**Disciplina**

359.00285

Lingua di pubblicazione

Inglese

Formato

Materiale a stampa

Livello bibliografico

Monografia

Sommario/riassunto

A comprehensive discussion of operational requirements for future naval operations with sufficient detail to enable design and development of technical solutions to achieve the advanced information

fusion and command and control concepts described. This book provides a unique focus on advanced approaches to Naval ISR and the critical underlying technologies to enable Distributed Maritime Operations (DMO). Also describing the approach of distributed Naval ops and role of ISR applying advanced technologies and addressing future conflict, new U.S. Naval maritime approaches, distributed Maritime Operations (DMO) and the newest U.S. Navy operational concept. This is a great resource for Naval officers in the ISR, Intelligence, Space, ASW, EW and Surface Warfare, disciplines who seek an in-depth understanding of advanced ISR operations and technologies as well as Navy and industry managers and engineers planning and developing advanced naval systems.
