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| Autore | Cordes Eugene H |
| Titolo | The tao of chemistry and life [[electronic resource] ] : a scientific journey / / Eugene H. Cordes |
| Pubbl/distr/stampa | Oxford ; ; New York, : Oxford University Press, 2009 |
| ISBN | 0-19-045148-3<br>1-282-23532-X<br>9786612235320<br>0-19-970876-2 |
| Descrizione fisica | 1 online resource (427 p.) |
| Disciplina | 572 |
| Soggetti | Biochemistry<br>Molecular structure<br>Life (Biology)<br>Organisms<br>Electronic books. |
| 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 (p. 373-386) and index. |
| Nota di contenuto | Contents; 1. Life: unity out of diversity; 2. Life: central properties; 3. Molecular structures based on carbon: the foundation for the molecules of life; 4. Building blocks and glue; 5. From methane to chemical communication; 6. Nitrogen and oxygen: atmospheric elements; 7. More about oxygen-containing molecules; 8. Now for the rest of the elements in vitamin pills; 9. Proteins: an amazing collection of multifunctional properties; 10. Amino acids: the building blocks of proteins; 11. Proteins are three-dimensional objects<br>12. Nucleotides are the building blocks of nucleic acids: the stuff of genes13. The central dogma of molecular biology and protein synthesis; 14. Genomes; 15. Vitamins: molecules of life; 16. Carbohydrates: sweetness and life; 17. Generating energy from catabolism; 18. Fatty acids: the building blocks of lipids; 19. Lipids: the greasy stuff of life; 20. Steroids: sex and other good things; 21. Your brain: what it does and how it does it; 22. Your brain: good things and not-good things; 23. Antibiotics: the never-ending war against |

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| | infectious disease<br>24. Cancer: what it is and what we can do about it25. Chemical communication; Appendix: some examples of explicit and condensed molecular structures; Notes; Glossary; Index |
| Sommario/riassunto | Written with the non-scientist in mind, this book employs the molecule and its interactions to explain the characteristics of living organisms in terms of the underlying chemistry of life. Following introductory chapters on the fundamentals of life, attention then turns to small molecules such as hormones and neurotransmitters and subsequently to macromolecules including proteins and nucleic acids. The interactions between small and macromolecules remains a central point throughout the book. These include enzymatic catalysis, hormone action, neurotransmission, regulation of metabolism, biosynt |