1. Record Nr. UNISA996395084003316

Autore	Cotton Robert, Sir, <1571-1631.>
Titolo	A speech made by Sir Robert Cotton, Kt and Baron[e]t before the Lords of His Majesty's most honorable Privy-Council, at the council-table [[electronic resource]] : being thither called to deliver his opinion touching the alteration of coin Sept. 2. Annoque Regni Regis Caroli II
Pubbl/distr/stampa	London, : Printed for Tho. Horne, at the south entrance of the Royal Exchange in Cornhill, 1690
Descrizione fisica	12 p
Soggetti	Coinage - England Great Britain Politics and government 1660-1714 Early works to 1800
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Imperfect: cropped at top and margins with slight loss of text. Reproduction of original in: Corpus Christi College (University of Oxford). Library.
Sommario/riassunto	eebo-0030

2. Record Nr. UNINA9910969108303321

Autore	Blomberg Clas
Titolo	Physics of life : the physicist's road to biology / / by Clas Blomberg
Pubbl/distr/stampa	Amsterdam ; ; London, : Elsevier, 2007
ISBN	9786611076979 9780080555645 0080555640 9781281076977 128107697X 9780080554648 0080554644
Edizione	[1st ed.]
Descrizione fisica	1 online resource (437 p.)
Disciplina	571.4
Soggetti	Biophysics Physics
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	Front Cover; Physics of Life: The Physicist's Road to Biology; Copyright Page; Contents; Preface; Part I: General introduction; Chapter 1. Introduction: the aim and the scope of the book; Chapter 2. The physics of life: physics at several levels; Part II: The physics basis; Chapter 3. Concepts and numerical reference; 3A Numerical values; Chapter 4. Basics of classical (Newtonian) dynamics; Chapter 5. Electricity: the core of reductionism basis; 5A General electrostatics; 5B Formalism of electrostatics*; 5C Magnetism; 5D Relations between electric and magnetic fields: Maxwell's equations* 5E Radiation Chapter 6. Quantum mechanics; 6A The thermodynamic path to quantum mechanics; 6B Basic principles of quantum mechanics; 6C The hydrogen atom*; 6D The strange features of quantum mechanics; Chapter 7. Basic thermodynamics: introduction; 7A Thermodynamic concepts; 7B Energy and entropy; 7C The second law of thermodynamics; 7D Free energies and chemical potential; Chapter 8. Statistical thermodynamics; 8A Basic assumption and statistical entropy; 8B Energy distribution*; 8C More on micro- and macrostates;

Part III: The general trends and objects

Chapter 9. Some trends in 20th century physics Chapter 10. From the simple equilibrium to the complex; Chapter 11. Theoretical physics models: important analogies; Chapter 12. The biological molecules; 12A General properties of proteins and amino acids; 12B Sugars; 12C Nucleic acids; 12D The genetic code; 12E Energy-storing substances; 12F Lipids: membranes; Chapter 13. What is life?; Part IV: Going further with thermodynamics; Chapter 14. Thermodynamics formalism and examples: Combinatorial expressions and Stirling's formula; 14A General formalism: energy concepts; 14B Mixing entropy
14C Water: solubility 14D Formalism of mixing and solutions*; 14E Chemical thermodynamics*; 14F Non-equilibrium thermodynamics*; Chapter 15. Examples of entropy and order/disorder; 15A Shuffling cards; 15B The monkey library and DNA; 15C Order and disorder; 15D The relation to the second law; Chapter 16. Statistical thermodynamics models; 16A Magnetic analogies and molecule conformations; 16B Ising-type models of 1D systems*; 16C Renormalisation methods*; 16D Spin glass; Part V: Stochastic dynamics; Chapter 17. Probability concepts; 17A Examples
17B Normal distribution: approximation of binomial distribution Chapter 18. Stochastic processes; 18A Introduction: general account; 18B Terminology and formal basis; 18C Ergodicity in biology; Chapter 19. Random walk*; 19A Formalism; 19B Absorbing and reflecting boundaries; 19C First passage time; 19D Non-intersecting random walk; Chapter 20. Step processes: master equations*; 20A Poisson process; 20B Processes with a small number of states and constant transition probabilities; 20C Formalism: matrix method; 20D A process with constant average and extinction possibility
20E Birth-death process with extinction

Sommario/riassunto

The purpose of the book is to give a survey of the physics that is relevant for biological applications, and also to discuss what kind of biology needs physics. The book gives a broad account of basic physics, relevant for the applications and various applications from properties of proteins to processes in the cell to wider themes such as the brain, the origin of life and evolution. It also considers general questions of common interest such as reductionism, determinism and randomness, where the physics view often is misunderstood. The subtle balance between order and disorder is a repeated t