1. Record Nr. UNINA9910456107803321

Titolo	Contraceptive research and development [[electronic resource]] : looking to the future / / Polly F. Harrison and Allan Rosenfield, editors ; Committee on Contraceptive Research and Development, Division of Health Sciences Policy, Institute of Medicine
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, 1996
ISBN	1-282-08129-2 9786612081293 0-309-52251-X 0-585-02451-0
Descrizione fisica	1 online resource (536 p.)
Altri autori (Persone)	HarrisonPolly F RosenfieldAllan
Disciplina	613.9/4
Soggetti	Contraception - Research Contraception - Forecasting Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Based on two workshops held in 1994-1995.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Front Matter""; ""Acknowledgments""; ""Contents""; ""Summary""; ""1 Introduction""; ""2 The Need and Demand for New Contraceptive Methods""; ""3 Contraceptive Technology and the State of the Science: Current and Near-future Methods""; ""4 Contraceptive Technology and the State of the Science: New Horizons""; ""5 The Market for New Contraceptives: Translating Unmet Need into Market Demand""; ""6 The Translators: Sectoral Roles in Contraceptive Research and Development""; ""7 Issues of Law, Regulation, Information, and the Environment for Contraceptive Research and Development"" ""8 Recommendations""""A Female Methods""; ""B Male Methods""; ""C Immunocontraceptive Approaches""; ""D Part 1: Barrier Methods""; ""E Agendas and Participants in Committee Workshops""; ""F Committee Biographies""; ""Glossary""; ""Index""

2. Record Nr. UNINA9910807915203321

Titolo	Biomolecular information processing : from logic systems to smart sensors and actuators / / edited by Evgeny Katz
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2012
ISBN	9786613909428 9783527645497 3527645497 9781283596978 1283596970 9783527645503 3527645500
Edizione	[1st ed.]
Descrizione fisica	1 online resource (379 p.)
Altri autori (Persone)	KatzEvgeny
Disciplina	572.80285
Soggetti	Molecular biology - Data processing Molecular biology - Computer programs
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Biomolecular Information Processing; Contents; Preface; List of Contributors; 1 Biomolecular Computing: From Unconventional Computing to "Smart" Biosensors and Actuators - Editorial Introduction; References; 2 Peptide-Based Computation: Switches, Gates, and Simple Arithmetic; 2.1 Introduction; 2.2 Peptide-Based Replication Networks; 2.2.1 Template-Assisted Replication; 2.2.2 Theoretical Prediction of the Network Connectivity; 2.2.3 De novo Designed Synthetic Networks; 2.3 Logic Gates within Ternary Networks; 2.3.1 Uniform Design Principles of All Two-Input Gates; 2.3.2 OR Logic 2.3.3 AND Logic 2.3.4 NAND Logic; 2.3.5 XOR Logic; 2.4 Symmetry and Order Requirements for Constructing the Logic Gates; 2.4.1 Symmetry and Order in Peptide-Based Catalytic Networks; 2.4.2 How Symmetry and Order Affect the Replication of RNA Quasispecies; 2.5 Taking the Steps toward More Complex Arithmetic; 2.5.1 Arithmetic Units; 2.5.2 Network Motifs; 2.6 Experimental Logic Gates; 2.6.1 OR Logic; 2.6.2 NOT, NOR, and NOTIF Logic; 2.6.3 Additional Logic Operations; 2.7

Adaptive Networks; 2.7.1 Chemical Triggering; 2.7.2 Light Triggering; 2.7.3 Light-Induced Logic Operations
2.8 Peptide-Based Switches and Gates for Molecular Electronics 2.9 Summary and Conclusion; Acknowledgments; References; 3 Biomolecular Electronics and Protein-Based Optical Computing; 3.1 Introduction; 3.2 Biomolecular and Semiconductor Electronics; 3.2.1 Size and Speed; 3.2.2 Architecture; 3.2.3 Nanoscale Engineering; 3.2.4 Stability; 3.2.5 Reliability; 3.3 Bacteriorhodopsin as a Photonic and Holographic Material for Bioelectronics; 3.3.1 The Light-Induced Photocycle; 3.3.2 The Branched Photocycle; 3.4 Fourier Transform Holographic Associative Processors
3.5 Three-Dimensional Optical Memories 3.5.1 Write, Read, and Erase Operations; 3.5.2 Efficient Algorithms for Data Processing; 3.5.3 Multiplexing and Error Analysis; 3.6 Genetic Engineering of Bacteriorhodopsin for Device Applications; 3.7 Future Directions; Acknowledgments; References; 4 Bioelectronic Devices Controlled by Enzyme-Based Information Processing Systems; 4.1 Introduction; 4.2 Enzyme-Based Logic Systems Producing pH Changes as Output Signals; 4.3 Interfacing of the Enzyme Logic Systems with Electrodes Modified with Signal-Responsive Polymers
4.4 Switchable Biofuel Cells Controlled by the Enzyme Logic Systems
4.5 Biomolecular Logic Systems Composed of Biocatalytic and Biorecognition Units and Their Integration with Biofuel Cells; 4.6 Processing of Injury Biomarkers by Enzyme Logic Systems Associated with Switchable Electrodes; 4.7 Summary and Outlook; Acknowledgments; References; 5 Enzyme Logic Digital Biosensors for Biomedical Applications; 5.1 Introduction; 5.2 Enzyme-Based Logic Systems for Identification of Injury Conditions; 5.3 Multiplexing of Injury Codes for the Parallel Operation of Enzyme Logic Gates
5.4 Scaling Up the Complexity of the Biocomputing Systems for Biomedical Applications - Mimicking Biochemical Pathways

Sommario/riassunto

Edited by a renowned and much cited chemist, this book covers the whole span of molecular computers that are based on biomolecules. The contributions by all the major scientists in the field provide an excellent overview of the latest developments in this rapidly expanding area. A must-have for all researchers working on this very hot topic. Perfectly complements Molecular and Supramolecular Information Processing, also by Prof. Katz, and available as a two-volume set.